

Audit and Compliance Committee Meeting

1111 E. Main Street
Third Floor Board Room

Tuesday, 9/13/2022 2:00 - 4:30 PM ET

- I. Welcome
- II. Minutes

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- III. Audit Reports
 - A. Report 445: Disability Retirements

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B. Report 446: Fixed Income

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- IV. Annual Progress Reports for FY2022
 - A. Annual Report on Internal Audit

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- B. Annual Report on the Audit Recommendation Follow-up System FY2022 ARFUS - Page 60
- C. Annual Reports on FY2022 Audit Plan and FY2021-2024 Long Range Plan Status FY2022 Annual Plan Progress Page 64

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V. Proposed FY2023 Annual Audit Plan

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RBA: Approve FY2023 Annual Plan - Page 79

VI. Quarterly Report on Fraud, Waste and Abuse Hotline Cases

Fraud Waste and Abuse Report - May 1 through July 31 2022 - Page 81

- VII. Miscellaneous Updates
 - A. Review of VRS' Agency Performance Outcomes and Operational Measures FY2022 APO and OM Review - Page 85
 - B. Review of Investment Variable Performance Program *FY2022 Incentive Compensation Memorandum Page 86*
 - C. Management's Quarterly Travel Expenses and Per Diem Report Management's Report - Page 87
 - D. Next Meeting Date: December 8, 2022 at 10 am
- VIII. Review of Audit Director's Performance (Closed Session)

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Minutes

The Audit and Compliance Committee of the Board of Trustees met on June 16, 2022, at the Virginia Retirement System located in Richmond, Virginia. The following individuals were present.

Audit and Compliance Committee Members:

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

Other Members of the Board of Trustees:

John M. Bennett Troilen G. Seward, Ed.S.

VRS Staff:

Patricia Bishop, Jennifer Schreck, Judy Bolt, Valerie Disanto, Barry Faison, Joshua Fox, John T. Grier, Krystal Groff, Curt Mattson, Matthew Priestas, Mark Rein, Kristy Scott, Leslie Weldon and Cynthia Wilkinson.

Guests:

Jamie Bitz, Department of Planning and Budget; and Zach Borgerding, Auditor of Public Accounts

The meeting convened at 2:00 p.m.

Opening Remarks

Joseph W. Montgomery called the meeting to order and welcomed everyone to the June 16, 2022 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. Hayes, seconded by Mr. Andrews, the Committee approved the minutes of the Audit and Compliance Committee meeting held on March 29, 2022.

Exit for the 2021 Employer Assurances Review

Mr. Borgerding updated the Committee on the status of the Auditor of Public Accounts' (APA) separate examinations designed to provide participating employers and their auditors the assurances necessary to prepare their own annual financial statements in accordance with Governmental Accounting Standards Board Statements No. 68 and 75.



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He noted these examinations are progressing as planned and the APA should conclude their work and issue the related opinions for the pension and OPEB plans during the month of July, with his update serving as the exit for the engagement.

Entrance Conference on 2022 Annual Comprehensive Financial Report

The Committee proceeded to the scheduled entrance with the APA. The primary purpose of the entrance meeting was to review the approach and scope of the APA's annual examination of VRS' Annual Comprehensive Financial Report (ACFR) for the fiscal year ending June 30, 2022. Mr. Borgerding noted the APA's primary responsibilities under Generally Accepted Auditing Standards are to provide reasonable assurance as to whether the financial statements are free of material misstatements. Mr. Borgerding also noted APA's responsibility to determine that VRS' financial information is accurately incorporated into the statewide ACFR.

Mr. Borgerding further addressed the APA's use of materiality, responsibility for identifying fraud, as well as reporting on non-compliance items that could have a material direct or indirect effect on financial statements.

Finally, Mr. Borgerding shared a report on internal controls and compliance will be provided and any significant findings over internal controls would be included in the Statewide Single Audit (SSA) Report. Mr. Borgerding provided further information about the SSA and its related report and addressed the Committee's questions.

Audit Reports

The Committee received two audit reports from staff.

<u>Audit Report 443 – Cash Management</u>

Ms. Scott presented the results of Internal Audit's review of Cash Management. The review determined cash management processes support operational needs and comply with applicable statutory requirements, bank and investment accounts significant to cash management are adequately monitored and cash deposits are reasonably protected in the event of bank failure. There were no written recommendations resulting from the review. The Committee discussed the frequency of future reviews of this area.

Audit Report 444 – Review of IT General Controls

Mr. Priestas presented the results of Internal Audit's review of IT General Controls. The review determined overall VRS' IT architecture is effective and secure. There were four formal recommendations resulting from this review. Ms. Bishop discussed the report's results with the Committee, noting the organization's plans for addressing the recommendations.

Acceptance of the Audit Reports

Upon motion of Mr. Andrews, seconded by Mr. Hayes, the Committee accepted audit reports 443 and 444 as presented.



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Miscellaneous Updates

Quarterly Report on Fraud, Waste and Abuse Hotline Cases

Ms. Schreck shared there were no Fraud, Waste and Abuse cases reported for the period February 1, 2022 through April 30, 2022.

Management's Quarterly Travel Expense and Per Diem Report

Ms. Schreck observed 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 noted the next meeting of the Committee is scheduled for September 13, 2022, at 2:00 p.m.

Meeting Adjournment

There being no further business, upon motion by Mr. Andrews, seconded by Mr. Hayes, the Audit and Compliance Committee adjourned the meeting at approximately 2:28 p.m.			
Committee Chair	Secretary		

Audit Reports



VRS Disability Retirements

As of October 31, 2021

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.

Virginia Retirement System

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Dear Members of the Audit and Compliance Committee,

We have completed audit number 445, "VRS Disability Retirements." The main purpose of our audit was to determine that disability retiree processes and procedures are operating as expected and to determine the validity, accuracy and completeness of disability retirement payments.

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 objective. 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 Disability Retirement Unit and Compliance Department throughout this audit.

Respectfully Submitted,

Jennifer P. Bell Schreck, CPA, CISA, PMP

Audit Director

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EXECUTIVE SUMMARY

We conducted an examination of VRS' Disability Retirement processes as of October 31, 2021. Our review determined that:

- Processes and procedures in place for disability retirement are reasonable;
- Payment of disability retirement benefits were valid, accurate and made timely; and,
- Sufficient controls are in place to protect the confidentiality, integrity, and availability of information pertinent to disability retirements.

This is the first audit of the Disability Retirement process since the activity moved in its entirety to the VNAV environment from VRS' retired legacy system. With this change, members now can make certain changes to their member record and initiate service retirement using myVRS.

There are no written recommendations resulting from our review.

SNAPSHOT

As of October 31, 2021, there were 18,544 retirees receiving a disability retirement disbursement, the majority of which are non-work-related.



15,195

Work Related

Non-Work Related

AUDIT ASSESSMENT

Disability retirement processes are working as expected and retirees' disability benefit payment amounts are valid and accurate.

Written Recommendations: 0

VRS Disability Retirements Pg. 3 of 21

VRS members have access to disability benefits through various programs including:

- VRS Disability
 Retirement
- Virginia Sickness and Disability Program (VSDP)
- Virginia Local Disability Program (VLDP)
- Employer sponsored disability plans

This review focuses on the disability benefits offered through the VRS Disability Retirement.

BACKGROUND

INTRODUCTION

If a member cannot perform their job due to a work-related or non-work-related illness or injury that is likely to be permanent, they may be eligible to retire on disability. Eligibility for VRS Disability Retirement is dependent on the member's defined benefit plan and sickness and disability program participation, while the entitled benefit amount depends on the age of the applicant and their qualification to receive Social Security Benefits related to their disability. The member does not have to be vested in their applicable retirement plan to be eligible for the VRS Disability Retirement benefit.

Work-Related Disabilities

result from an occupational illness or injury occurring on the job with the cause determined compensable under the Virginia Workers' Compensation Act.

Non-Work-Related Disabilities are those not compensable under the Virginia Workers'

Compensation Act.

Eligibility

If a member suffers a physical disability or cognitive condition leading to the loss or deterioration in intellectual capacity preventing them from performing their job and the disability is likely to be permanent <u>and</u> they are a:

- Member of the Judicial Retirement System (JRS); or
- State employee in Plan 1 hired before January 1, 1999, who did not elect to enroll in the Virginia Sickness and Disability Program (VSDP) during one of two open enrollment periods offered in 1999 and 2002; or
- Political subdivision and school division employee in Plan 1 or Plan 2,

they are eligible to be considered for disability retirement. Members who may be considered for VRS Disability Retirement are eligible to apply for this benefit from the first day of covered employment.

Any condition that existed prior to employment in a covered position must substantially worsen to be considered for disability retirement. Similarly, likely permanent chronic conditions, such as diabetes or mental illness, must worsen to the point the member can no longer perform their job duties.

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Members are not eligible to retire on disability if they:

- Have a disability not likely to be permanent.
- Are covered under VSDP.
- Are employed by a college or university and opted out of VSDP to participate in an employer-sponsored disability plan.
- Are covered under the Virginia Local Disability Program (VLDP) or a comparable program provided by their employer.
- Are Hybrid Retirement Plan members, with the exception of the JRS Hybrid Retirement Plan members.
- Elect to defer their retirement <u>and</u> more than 90 days have passed since their separation date.
- Leave employment and take a refund of their member contributions and interest.
- Participate in an optional retirement plan administered or authorized by VRS.

Non-Work-Related Disability Retirement Benefit

Non-Work-Related Disability Retirement benefits are dependent on the member's vested status and age at the time of retirement. For eligible vested members, the amount of the benefit will be the VRS formula amount or the minimum guaranteed benefit, whichever is higher. Non-vested members are eligible only for the minimum guaranteed amount.

VRS Formula Amount

The service credit used to calculate the VRS formula amount differs if the member is under age 60 versus age 60 or older at the time of retirement. Similarly, the percentage of average final compensation used to calculate the VRS formula amount will depend on the member's plan participation as reflected below.

VRS Plan 1	VRS Plan 2	JRS
1.70%	1.65%	1.70% if appointed or elected to an original term before January 1, 2013
1.70%	1.65% if appointed or elected to an original term on or after January 1, 2013	

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The member's service credit, applicable percentage and average final compensation are used to determine the member's monthly disability benefit.

Minimum Guaranteed Benefit

The member's qualification to receive Social Security disability benefits will determine their minimum guaranteed benefit for a non-work-related disability retirement, as reflected below.

Qualified	Not Qualified	
33 ¹ / ₃ % of average final compensation	50% of average final compensation	

Members who do not provide evidence of applying for social security disability benefits will be entitled to a minimum benefit of $33^{1}/_{3}\%$ of average final compensation.

Work-Related Disability Retirement Benefit

Members who are determined to be eligible to retire on a work-related disability receive a refund of their member contribution account balance in addition to a monthly benefit. The work-related disability retirement monthly benefit amount is the higher of the work-related disability guaranteed benefit described below or the full VRS formula amount described above.

Guaranteed Benefit

As with non-work-related disabilities, the member's qualification to receive Social Security disability benefits will determine how the guaranteed benefit for a work-related disability retirement is calculated.

Qualified	Not Qualified	
50% of average final compensation	66 ² / ₃ % of average final compensation	

Members who do not provide evidence of applying for social security disability benefits will only be entitled to a minimum benefit of 50% of their average final compensation.

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WORK-RELATED DISABILITY DETERMINATION

VRS is not responsible for work-related disability determinations.

The member must file a claim under the Virginia Workers'
Compensation Act through the Virginia Workers' Compensation
Commission.

The Commission makes the determination and communicates directly with the member regarding their award or denial. The member is responsible for submitting the award determination to VRS for action.

Work-Related Disability Benefit Offset

The VRS calculated monthly benefit amount is offset by any workers' compensation benefit the member receives. For example, if the member receives:

- A workers' compensation benefit equal to or greater than their VRS disability retirement benefit, they will not receive the VRS benefit, unless the workers' compensation benefit is reduced or ends.
- A workers' compensation benefit less than their VRS disability retirement benefit, the member will receive the difference between the two benefits to bring the member to the VRS benefit amount.
- A lump-sum workers' compensation settlement, VRS will determine the value of the settlement after deducting any fees (such as legal or medical) and then offset the VRS benefit accordingly. Depending on the settlement balance, the member may not receive a disability retirement from VRS for a period of time, typically a number of months, but possibly more than a year.

The offset of the VRS benefit can occur up to a maximum of 500 weeks. Once the offset ends, VRS will pay the full guaranteed benefit, upon receipt of the workers' compensation notice.

Tax Implications

Refunds of pre-tax member contributions are subject to income taxes and may be subject to additional penalties, if refunded before age $59^{1}/_{2}$. However, there are exceptions to this rule and the opportunity for deferral exists. In addition, for work-related disability retirees, only the portion of their monthly benefit amount which exceeds the work-related disability guaranteed benefit is subject to state and federal income taxes.

DISABILITY RETIREMENT PAYOUT OPTIONS

The member may choose either the Basic Benefit or the Survivor Option under both the non-work-related and work-related disability. If the Basic Benefit is selected as the benefit payout option, it cannot be changed once the date of retirement has passed. If the Survivor Option is selected, the member may choose to have any whole percentage of the monthly benefit paid to the survivor, from 10% to 100%. Payments continue until the survivor's death. The named survivor can be a spouse, minor child or parent and more than one survivor can be named. If the Survivor Option is chosen, it may be changed only in certain situations, such as the death of the survivor.

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OTHER SERVICE RETIREMENT CONSIDERATIONS

If a **PLOP** was **selected** on a service retirement application, the PLOP is held until it is determined whether the disability retirement application is approved. If the service retirement is processed before the disability retirement application and the PLOP has already been paid, the **member must** repay the **PLOP**. Repayment may be deducted from the retirement benefit, or, if it is a large amount, it may be funded through an actuarial lifetime benefit reduction.

Service Retirement Considerations

A member can file both a service and non-work-related disability application to see which benefit will be most advantageous. A service retirement may be more advantageous than disability retirement for members with more than 30 years of service, over age of 60 or eligible for hazardous duty benefits. When eligible members apply for service and non-work-related disability retirement at the same time, the analysts in the service retirement and disability retirement areas coordinate their processing efforts.

Non-Work-Related Processing

If the disability is non-work-related, VRS will move forward with processing the service retirement application. If the disability retirement is approved later, the benefit will change from service to disability retirement as the benefit is usually higher for disability retirement. If the service application was already in place and benefits received, the member will receive a payment for the retro-active difference in the service retirement benefit and the disability retirement amount that is owed.

Work-Related Processing

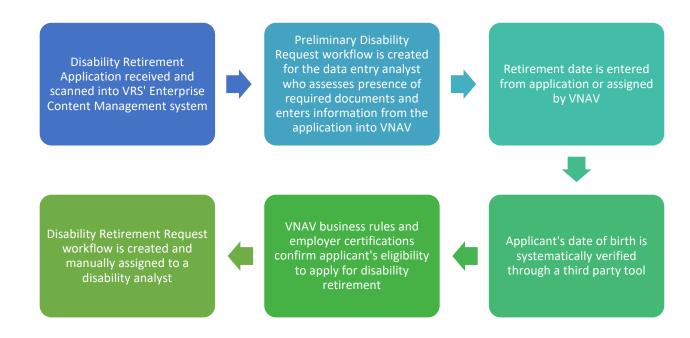
If the disability is work-related, VRS cannot process the retirement application unless the work-related disability retirement is rescinded. This is done to avoid any overpayment due to workers' compensation benefits. If the disability retirement application is denied, the service retirement application will be honored.

DISABILITY RETIREMENT PROCESS

VRS Disability Retirement applications must be submitted while the member is employed in a VRS-covered position, within 90 days of leaving a covered position, or before completing 24 consecutive months of leave without pay. Given the complexities around disability retirements, members must apply for the benefit manually. For the same reason, Disability Retirement applications go through a multi-layered process of data entry, validation, review and approval.

This process begins with the receipt and entry of the application into VNAV. Further, the application and any supporting documentation or related forms are scanned into VRS' Enterprise Content Management (ECM) system. The initial processing is reflected on the following page.

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On occasion VRS receives medical information from the retiree, or in rare instances, the retiree has their provider send such information to VRS for submission to the Medical Review Board.

VRS restricts access to any medical information it receives and stores based on least privilege and protects its storage and transmission

through encryption tools and

techniques.

Review by Medial Review Board

The assigned analyst completes the disability request activity steps to finalize the application by ensuring all required documents are present and then submits the case for disability eligibility determination to the Medical Review Board through the Medical Board Portal. During the review, the Medical Review Board works directly with the member, their physician or treating healthcare professional or their attorney to gather additional information as necessary. The VRS assigned analyst communicates with the claimant's liaison or nurse case manager as required during this process. VRS further uses the Medical Board Portal to download medical decisions and support other program administration activities.

Calculation of the Disability Benefit

Once approved by the Medical Review Board, the case proceeds in VNAV to the Benefit Calculation Engine (BCE) for monthly benefit calculation. Another workflow is then triggered for review and approval of the disability retirement request. The approver reviews the application and all supporting documentation and then approves or rejects the case for further processing.

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Given the complexities surrounding disability retirement applications, especially work-related disabilities, a manual calculation is performed and compared to the BCE calculation in VNAV. If a variance is identified between the two calculations, the override feature in VNAV can be used to modify the system calculation. The override panel in VNAV stores the calculations before and after the modification for each individual case.

BCE calculation variances can arise for various reasons such as members with contract based service credits, such as teachers, or work-related disabilities approved by the Workers' Compensation Commission requiring end dates to be updated and offsets to be calculated.

Once the manual calculation is scanned into ECM, the application is again reviewed, and the assigned analyst submits it to the approver. The approver reviews the calculation, verifies all required documentation is in ECM and ensures that everything is entered correctly into the system (average final compensation (AFC), service, AFC range, and Social Security status), leading to the final approval of the application.

Reject Process

Appropriate error resolution activities are included in the processing of the application and allow the application to be sent back to the analyst to make the necessary corrections and resubmit the application for review.

Communication of the Disability Benefit

Upon approval, a letter detailing the retirement information is sent to the member. If the member is eligible for the health insurance credit benefit, the letter will reflect the maximum amount payable for that benefit.

Payment Workflow Approval

Once approved, the Payee Account Workflow kicks off and the payee account is created in VNAV, which will capture the monthly benefit; retro payment amount, if applicable; tax information; bank account information; as well as the individual's life insurance. The record is now established and ready for disability benefit payments when the next disbursement runs.

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VRS deposits monthly benefits through Electronic Funds Transfer (EFT) into a retiree's or beneficiary's bank, credit union or other financial institution. Deposits are made on the first of each month or the last working day of the preceding month, if the first falls on a holiday or weekend. Participation in direct deposit is required of retirees and beneficiaries unless an exception has been filed and approved by VRS.

BENEFIT ADJUSTMENTS

VRS disability retirement benefits can be adjusted over time for various reasons. Non-work-related disability retirement benefits do not require the frequency of adjustments or monitoring that work-related disability benefits require, as reflected below.

Event Leading to Benefit Adjustment	Non- Work- Related	Work- Related
Determined not qualified for Social Security disability benefit	✓	✓
Returning to work	\checkmark	\checkmark
Returning to work in a light duty position	\checkmark	\checkmark
Change in Workers' Compensation benefit		\checkmark
Workers' Compensation benefit offset end date reached		\checkmark
Member non-compliance	✓	✓

Most adjustments require communication from external parties (i.e., the member, an employer, etc.) to be initiated. VRS also uses routine monitoring reports to identify members whose workers' compensation offset end date is approaching to ensure the change in benefit is appropriately applied.

Cessation of Benefits

The disability retirement benefit is discontinued when a member accepts employment in a position that is the same or has similar duties of the position for which they were approved for disability retirement benefits or returns to any covered-VRS position. The individual can still be eligible for service retirement, or disability retirement again, based on the plan they are in and if the position is eligible for the benefit.

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MEDICAL BOARD

The Code of Virginia provides VRS' authority to retain an independent medical board to review the medical and job information submitted with applications for disability retirement and to recommend to VRS whether to approve or deny an application. The VRS Medical Board is comprised of board-certified physicians and other health care professionals. The current medical board third-party administrator is Managed Medical Review Organization (MMRO). MMRO was selected through the Request for Proposal (RFP) competitive bid process in 2018. VRS monitors and reviews the contractor performance through regular communication that includes weekly emails, calls and meetings; other as needed meetings; and annual business relationship meetings. The Customer Programs Department has oversight responsibility for contract administration and relationship management. The Policy, Planning and Compliance Department assists in managing the relationship and is primary contact for the VRS Medical Board during disability application second appeals discussed further below.

EXTERNAL IT SYSTEMS

Two key external IT systems support the disability retirement process, the Medical Board Portal and the A2K: Advantage 2000 system. VRS staff use the Medical Board Portal to upload claim information and download medical decisions and billing documentation. The A2K: Advantage 2000 is for Social Security Advocacy Services.

VRS does not have access to Workers' Compensation Commission systems. As noted previously, Workers' Compensation Commission communication comes from the member, their attorney and/or employers. In limited situations information comes from directly from the Workers' Compensation Commission to VRS. All Workers' Compensation Commission related communication is received via the U.S. mail or fax.

OTHER DATA SHARING

Occasionally VRS receives CDs of applicant's medical information or medical documents consisting of high volumes of pages (i.e., 80 to 100 plus pages). VRS uses a secure file transfer process with appropriate access restrictions and encryption protocols to share this information with the Medical Review Board.

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RECALLS AND APPEALS

Recall Process

The recall process occurs where the VRS Disability Retirement Unit or Medical Review Board approves a member for disability retirement with a one- or two-year recall period, although these periods can be longer and are determined on a case-by-case basis. The VRS Policy, Planning and Compliance Department may provide a recommendation for the recall period. This review assesses whether a member is still disabled. The member is contacted by letter, which includes a disability report form to be completed by the member. The member has 90 days to respond. Disability retirement benefit payments to the member continues during the recall review.

Whether the Disability Retirement Unit or the Medical Review Board initiates the recall, the requested information is submitted to the Medical Review Board for consideration. If the Medical Review Board approves the recall, payments continue as usual. If the Medical Board denies the recall, the member may appeal the decision. If the denial decision remains after all appeals are exhausted, disability payments are discontinued. The member may then apply for service retirement, if eligible.

Outside of the recall review discussed above, VRS does not actively monitor members receiving disability retirement to determine if a member's disabling condition has improved. However, VRS may receive communications alleging a member is no longer disabled from another source, such as a member's employer, neighbor, news articles or social media posts, which could initiate a recall.

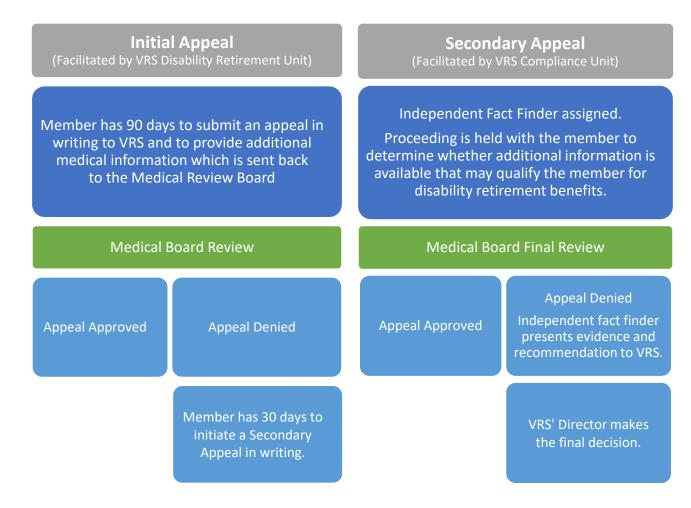
STATE HOTLINE ALLEGATIONS

Internal Audit also notifies the Disability Retirement team regarding Fraud, Waste and Abuse Hotline cases alleging a VRS Disability Retiree is no longer disabled. Depending on the details of the allegation a recall may be initiated as a part of investigating the allegation.

Appeals Process

As noted above, if a member's disability retirement application is denied, they may appeal the determination. The appeals process offers three points of appeal and review for the member to pursue, which begins with an Initial Appeal, continues with a Secondary Appeal, and ends with a final review and determination by VRS' Agency Director as described on the following page:

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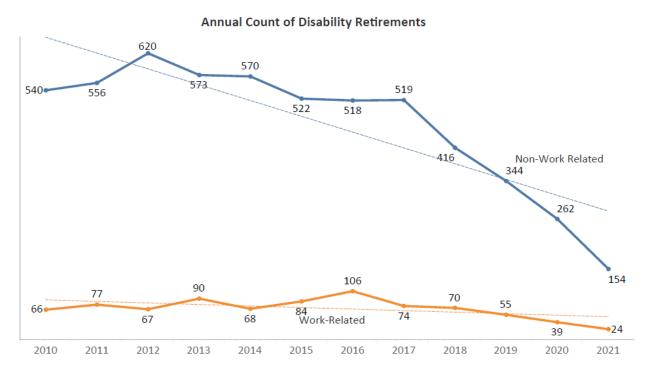
Independent Fact Finders

VRS has contracted with three fact finders to support the Secondary Appeal process. The Fact Finder relationships are managed by the Legal Affairs and Compliance Coordinator and the Appeals and Administrative Affairs Manager within the VRS Policy, Planning and Compliance Department. VRS is issuing an RFP to add a few more independent fact finders in anticipation of current fact finders rotating off or retiring.

Fact finders are assigned based on the member's location. Currently there are between five and ten appeals per month, with the largest numbers coming from the Northern Virginia and

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Tidewater areas. The need for these services is declining as the introduction of the VSDP and VLDP program and the Hybrid Retirement Plan have decreased the number of members eligible to apply for VRS Disability Retirement and therefore the number of disability retirement applications received over time, as reflected in the following chart.



Final Decision by the VRS Agency Director

If the Medical Review Board denies the claim again, the final case decision is made by VRS' Agency Director as authorized by the VRS Governance Policy. To support the Agency Director, the case is reviewed by the Policy, Planning and Compliance Director, Legal Affairs and Compliance Coordinator and the Appeals and Administrative Affairs Manager. The Agency Director will review the fact finder's information, examine the case and notes and make relevant inquiries to VRS staff prior to making the final decision.

SCOPE AND METHODOLOGY

The VRS Disability Retirement processes and resulting benefit payments were reviewed to ensure that proper controls are in place to protect the integrity of the monthly benefits paid to the Commonwealth's members or their beneficiaries that receive disability retirement benefits. Our examination was designed to:

- Determine those processes and procedures in place for disability retirement are reasonable;
- Determine the validity, accuracy and timeliness of the monthly disability retirement benefits; and,
- Determine that sufficient controls are in place to protect the confidentiality, integrity, and availability of information pertinent to disability retirements.

GENERAL ASSESSMENT AND UNDERSTANDING

We obtained a general understanding of the VRS Disability Retirement process as well as the associated controls by meeting with key individuals from the area. We also reviewed the applicable policies and procedures and other relevant documents describing the benefit and its administration.

DISABILITY RETIREMENT PROCESSES

We obtained an understanding of the processes in place surrounding non-work-related and work-related disability retirement applications through discussion with key individuals in the Disability Retirement Unit. A sample of non-work and work-related disability retirement applications, as well as a sample of disability retirement overpayments were selected and reviewed for compliance and to ensure the reasonableness of identifying and collecting overpayments.

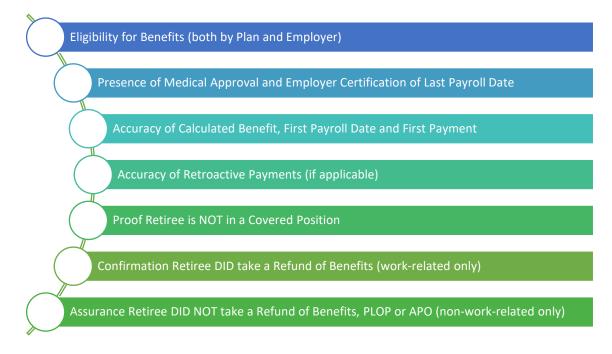
Contribution and interest balances were reviewed for a sample of deceased individuals to determine whether a zero balance was reflected in their account, and that the refund of contributions and interest, if applicable, occurred at the proper time. Group life insurance balances were reviewed for this same sample to ensure proper reduction took place over time, and that payments to beneficiaries were accurate.

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Recalls during the audit period were reviewed for compliance with the established policies and the application denial and subsequent appeals process was reviewed to ensure that proper protocol set forth were in place. Further, the process for monitoring appealed disability retirement applications was reviewed for reasonableness. Lastly, the application process was reviewed to determine whether applications for disability retirement are processed timely, and when noted, that delays were reasonable and resolved promptly.

DISABILITY RETIREMENT BENEFIT PAYMENTS

A sample was selected for both non-work-related and work-related disability retirement payments to obtain reasonable assurance of the validity, accuracy and timeliness of benefit payments. To obtain this assurance, we reviewed items including:



REVIEW OF UNUSUAL/UNEXPECTED RECORDS

Disability retirement accounts containing unusual or unexpected information, such as a Hybrid or Optional Retirement Plan for School Superintendent plan noted in the record were reviewed

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for reasonableness. Further, a sample of work-related and non-work-related disability retirement records prior to 1985 were selected due to their age and were reviewed for reasonableness.

SYSTEM SECURITY

We obtained an understanding of the agreement between VRS and the Medical Review Board through discussion with management. We reviewed the current interoperability agreement between VRS and the Medical Review Board.

We also gained an understanding of external systems that are a part of the disability retirement process. We reviewed access for both systems to determine reasonableness.

Further, we evaluated VNAV access roles for reasonableness and the transfer of information between the Medical Review Board and VRS.

Finally, we evaluated the steps in place to ensure that sensitive medical information was protected and only accessible to those with a business need.

CONCLUSIONS

GENERAL ASSESSMENT AND UNDERSTANDING

The review found the overall process in place for consideration of disability retirement applications is sufficient and the monthly disability retirement benefit amounts were valid and accurate. Further, reasonable assurance was obtained that disability retirement processes in place are working as expected.

DISABILITY RETIREMENT PROCESSES

Review of application processing for both non-work and work-related applicants found that applications are processed in a timely manner and, in most cases, documentation required for processing the application is on file in VNAV. We did find a few instances where, due to human error, applications were not processed timely. This was discussed with management who immediately took action to address the observation.

VRS Disability Retirements Pg. 18 of 21

Review of overpayments found they are identified promptly, and collection of overpayments is appropriate depending on the nature of the overpayment.

Evaluation of member account balances found that they were properly refunded based on the nature of the disability application. Further, review of group life insurance balances found that they were properly reduced over time and that payments to beneficiaries were accurate.

Review of the recall process found that VRS is in compliance with established policies. Review of application denials and subsequent appeals found that VRS follows the proper protocol set forth for these applicants and found that monitoring of these appeals was reasonable.

DISABILITY RETIREMENT BENEFIT PAYMENTS

Disability retirement payments are predominantly non-work-related and on average total \$26.5 million on a monthly basis.

Disability Retirement Payments January 1, 2021 through October 31, 2021 Non-Work Related vs. Work-Related			
	Non-Work Related	Work-Related	Total
January	\$20,041,192	\$7,016,213	\$27,057,405
February	\$19,727,452	\$6,825,997	\$26,553,449
March	\$19,738,422	\$6,811,610	\$26,550,033
April	\$19,641,960	\$6,852,602	\$26,494,562
May	\$19,554,974	\$6,786,098	\$26,341,072
June	\$19,423,024	\$6,786,391	\$26,209,415
July	\$19,603,011	\$6,822,112	\$26,425,123
August	\$19,645,837	\$6,898,703	\$26,544,540
September	\$19,634,713	\$6,931,982	\$26,566,695
October	\$19,692,182	\$6,876,581	\$26,568,763
Total	\$196,702,768	\$68,608,290	\$265,311,057

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Samples selected and tested for non-work-related and work-related disability retirement payments provided reasonable assurance that payments are valid, accurate and made in a timely manner.

SYSTEM SECURITY

Through discussions with management and review of documentation, we found that the agreement between VRS and the Medical Board is properly supported. We found that access to external systems that are a part of the disability retirement process was reasonable and that VNAV access roles are reasonable and limited to individuals based on the principle of least privilege. Lastly, we found that file transfers between VRS and the Medical Review Board are managed securely.

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.

VRS Disability Retirements Pg. 20 of 21

REPORT DISTRIBUTION

Submitted to the Audit and Compliance Committee at its meeting held September 13, 2022.

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 William A. Garrett Susan T. Gooden Troilen G. Seward

VRS EXECUTIVE LEADERSHIP

Patricia S. Bishop

Members of the Director's Executive Committee

AUDITOR OF PUBLIC ACCOUNTS

Staci A. Henshaw

JLARC

Kimberly A. Sarte
Jamie Bitz

PRINCIPAL AUDITOR IN-CHARGE

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

AUDIT SUPERVISOR

Joshua G. Fox, CIA, CFE, CIDA

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Fixed Income and Securities Lending Programs

As of September 30, 2021

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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BACKGROUND

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Dear Members of the Audit and Compliance Committee,

We have completed audit number 446, "Fixed Income and Securities Lending Programs." The main purpose of our audit was to review the Fixed Income Program, to ensure its activity is properly recorded and aligns with the Investment Policy Statement. Additionally, we ensured there are adequate monitoring controls over the Securities Lending Program.

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 Chief Investment Officer 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 Investment, Operations, Compliance and Investment Accounting Departments throughout this audit.

Respectfully Submitted,



Jennifer P. Bell Schreck, CPA, CISA, PMP

Audit Director

Fixed Income and Securities Lending Programs Pg. 2 of 21

EXECUTIVE SUMMARY

We conducted an examination of the Fixed Income and Securities Lending Programs within VRS' Investment Department as of September 30, 2021. Our review determined:

- Management's administration of the Fixed Income Program complies with the Investment Policy Statement;
- Sufficient and appropriate due diligence and monitoring activities are occurring;
- Fixed Income accounting transactions are accurate, reconciled and timely recorded by the Bank of New York Mellon (BNY Mellon); and,
- Management's monitoring controls over the Securities Lending Program are sufficient.

This review did not include an evaluation of the external manager fees related to the Fixed Income Program, as the controls surrounding these fees are addressed in a separate examination.

There were no written recommendations resulting from our review; however, certain opportunities to enhance the organization are discussed in the Conclusions section of the report.

SNAPSHOT

The total value of the Fixed Income Program as of September 30, 2021, was \$13.6 billion, representing 13.1% of the Total Fund.

Fixed Income Program vs. Total Fund Value



The total value of outstanding loans in the Securities Lending Program as of September 30, 2021, was in excess of \$7.1 billion, including Collateral in excess of \$7.5 billion for the Total Fund.

AUDIT ASSESSMENT

VRS provides appropriate oversight and monitoring of the Fixed Income and Securities Lending Programs.

Written Recommendations: 0

Fixed Income and Securities Lending Programs Pg. 3 of 21

FIXED INCOME PROGRAM LEADERSHIP STRUCTURE (As of September 30, 2021) **Chief Investment Officer** Managing Director - Public Market Assets Co-Director Co-Director Fixed Income Fixed Income Program Program Investment Officer Portfolio Manager (2)Investment Analyst

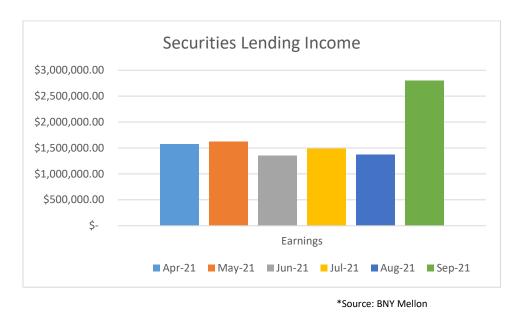
BACKGROUND

INTRODUCTION

The value of the Fixed Income Program as of September 30, 2021, was \$13.6 billion, or 13.1% of the Total Fund. The Fixed Income Program policy target as of September 30, 2021, is 16%, with an allowable range between 13% and 21%. Since its inception in 1988, the Fixed Income Program has generated an annualized net time-weighted return of 6.56%.

The Fixed Income Team is responsible for managing and monitoring the Securities Lending Program for the Total Fund. The total value of securities out on loan as of September 30, 2021, was \$7.1 billion, which was collateralized with both cash (\$4.1 billion) and noncash (\$3.4 billion) collateral totaling in excess of \$7.5 billion. Therefore, the program's collateralization rate was in excess of 105%.

As shown below, the Securities Lending Program generated approximately \$10.2 million in earnings for the six-month period preceding September 30, 2021. Securities Lending returns are proportionally recorded in the respective account from which the securities loans originated.



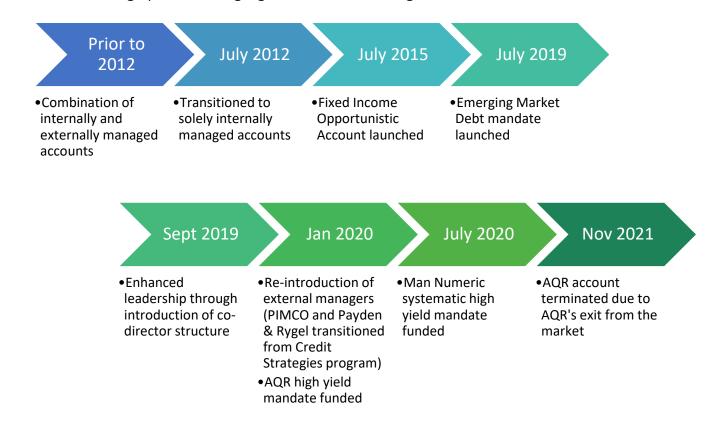
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Program History

VRS' Fixed Income Program has experienced significant changes in the last decade. Most notable has been a shift from a hybrid to a fully internally managed program back to a hybrid program.

Initially, the program was comprised of internally and externally managed accounts, until 2012 when all fixed income assets transitioned to be internally managed. However, in 2020 the program reorganized, added external managers and updated the benchmark, to again become a hybrid of internally and externally managed accounts.

The timeline graphic below highlights those and other significant milestones.



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Fixed Income Program Assets As of September 30, 2021 Externally Managed

Internally Managed

Program Goals

VRS invests a portion of its portfolio in fixed income investments to reduce total fund volatility, produce income and provide some protection in the event of a deflationary environment. The Fixed Income Program's investment objective is to control risk and generate an attractive risk-adjusted return relative to the program benchmark.

Fixed Income Investment Accounts

The Fixed Income Program is comprised of both internally managed and externally managed accounts. As of September 2021, the Fixed Income Program was responsible for a total of four externally managed accounts and nine internally managed accounts.

Two of the externally managed accounts currently part of the Fixed Income Program transitioned from the Credit Strategies Program in January 2020. Additionally, a third external manager, AQR, was added to the program in January 2020. Finally, in July 2020 the fourth external manager, Man Numeric, was hired to execute a systematic high yield mandate.

After the audit period, in November 2021, VRS terminated the Fixed Income account with AQR, as AQR was closing all their long-only fixed income accounts.

As shown in the graphic on the left, as of September 30, 2021, the majority (over 93%) of the program's assets are still being managed internally.

Performance Benchmark

The Fixed Income Program performance benchmark is a custom benchmark that became effective January 2020 and was affirmed by the Board of Trustees (Board) via Request for Board Action effective July 2020. The current benchmark is a blend of the Bloomberg Barclays Aggregate Bond Index (90%), Bloomberg Barclays US HY Ba/B 2% Issuer Cap Index (5%) and JP Morgan EMBI Global Core Index (5%).

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As illustrated in the table below, the Fixed Income Program performance has exceeded its benchmark for all periods.

Fixed Income Excess Returns as of 9/30/21				
	10 Year	5 Year	3 Year	1 Year
Program Return	4.0	4.1	7.0	1.8
Program Benchmark	3.1	3.0	5.5	-0.1
Excess Return	0.9	0.9	1.5	1.9

*Source: BNY Mellon

VRS Defined Benefit Plan

Investment Policy

Statement

Fixed Income

Program Investment

Policy Statement

INVESTMENT POLICY STATEMENTS

The governing document for the Total Fund is the VRS Defined Benefit Plan Investment Policy Statement, which the Board most recently approved in November 2018. Based on this policy statement, the overall investment objective of the VRS portfolio is to maximize return while managing risk within an acceptable range.

The Board has delegated to the Chief Investment Officer (CIO) the authority to establish and modify as necessary the program level investment policy statements. Therefore, the CIO approves any material changes to the risk profile and/or the return objectives for a program.

The VRS Fixed Income Program Investment Policy Statement applicable to the audit period is dated October 2018. This document includes the investment objectives and philosophy of

the program, portfolio risk analysis, a listing of allowable securities and transactions, best execution requirements, as well as a restriction on the use of soft dollars.

It was updated in September 2021 to incorporate the addition of external managers to the program. The newly updated Fixed Income Program Investment Policy Statement includes all elements of the prior version as well as the addition of the external manager due diligence process, including hiring and monitoring procedures.

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Soft dollars are a means of paying brokerage firms for their services through commission revenue, as opposed to through normal direct payments.

VRS defines best execution as the process and price that results in the best overall performance impact, taking into account current market conditions.

INTERNAL TRADE PROCESSING

Investment Platform

VRS uses a portfolio management software to support the administration of the Fixed Income Program. In addition to portfolio management and investment trading, this portfolio management software provides comprehensive investment accounting and operational tools on a single platform.

Portfolio Risk View Tool

A key tool within the portfolio management software provides a customizable framework to view portfolio risk attributes in a variety of ways, such as duration contribution, spread duration, yield and other factors. Portfolio managers are also able to perform extensive analysis on portfolio positions by issue, issuer, sector and many other breakdowns. The tool further allows portfolio managers to view and analyze these statistics for the portfolio and applicable benchmark, as well as how these two compare relative to one another.

This tool also gives the Fixed Income portfolio managers the ability to analyze changes in the portfolio risk profile and position breakdown prior to executing a trade or implementing an idea, allowing them to view these metrics in a way that works for their particular style of portfolio management. This functionality helps the Fixed Income group to accurately manage and thoroughly understand the Portfolio's risk profile and dynamic relationships, at both the individual manager's portfolio and the whole Fixed Income program level.

Reporting Tool

In addition to the Portfolio Risk View Tool, the portfolio management software offers a reporting tool that is updated to a secure website each morning after the Fixed Income data has been examined for accuracy by the investment management system vendor's data integrity team. The underlying data is the foundation for each day's portfolio data in the program risk analysis tool. The reporting tool provides customizable, interactive reports of different portfolio attributes and statistics, such as risk and sector, tracking error, duration breakdown, etc. The reporting tool provides these reports for the current day, prior day and prior month-end for comparison purposes.

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The portfolio management software also provides the Fixed Income group access to many other tools that are vital in oversight of the portfolio.

Accounting Records

The Bank of New York Mellon (BNY Mellon) is the master custodian of VRS' investments, and as such, has the responsibility for maintaining official and proper accounting records and providing custody services for most of VRS' investments, including investments managed both internally and externally. BNY Mellon provides monthly accounting reports to VRS. VRS maintains its own independent set of investment accounting records that are required to be reconciled with the records of BNY Mellon. Investment Operations uses the portfolio management software to maintain VRS' independent set of records for the portfolio (asset balances, transactions, income recognition, asset valuations, etc.).

Trading

The Fixed Income group performs trading for several of the accounts in the portfolio. These trades include rebalancing trades as well as relative value trades. Rebalancing trades usually occur at month-end, whereas relative value trades occur throughout the month. Regardless of the execution method, whether by electronic means or over the phone, all trades are captured within the portfolio management software.

Trade Matching

While the Fixed Income group performs the investment management and trading functions, the Investment Operations group independently performs the trade matching process. BNY Mellon will not recognize (book) a trade until it has been verified by VRS.

The trade matching process begins with the Investment Operations group receiving notification via the portfolio management software's dashboard that an authorized trader has executed a trade. Investment Operations then has the external broker verify all details of the trade, either using the portfolio management software's auto confirmation process or manually contacting the broker. Once verified and booked by BNY Mellon, Investment Operations reconciles all transactions confirmed in the portfolio management software to the information recorded by BNY Mellon.

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External Monthly Pre-trade and Compliance Post-trade Certification Compliance Compliance Monitoring **External Monthly** Holding and Reporting **Accounts Manual** Package Review

Policy Statement Compliance Monitoring

The Co-Directors of the Fixed Income Program are responsible for monitoring compliance with the VRS Fixed Income Investment Policy Statement.

Externally Managed Accounts

For externally managed accounts, each external manager submits a monthly compliance certification and other holding and performance reporting package. The monthly compliance certification is executed by the external manager and serves as the legal attestation that all portfolio guidelines comply with the Investment Management Agreements and other legal documents. The reporting package includes portfolio reviews and market updates which are examined by the Fixed Income Team for reasonableness and continued alignment with program goals.

Internally Managed Accounts

For internally managed accounts, one of the primary tools used to monitor program compliance is the portfolio management software's compliance monitoring tool. For most compliance requirements, the portfolio management software provides VRS the ability to run both a pretrade and post-trade compliance analysis to ensure all scheduled and executed transactions comply with the Fixed Income Investment Policy Statement. The pre-trade compliance check provides the Fixed Income traders the ability to cancel an order prior to execution if the compliance guidelines that are coded into the portfolio management software are not satisfied. After trade execution and matching, the software performs a post-trade compliance check to compare those compliance guidelines coded into the software against the settled transaction. The portfolio management software automatically notifies the Compliance Team when a post-trade compliance violation occurs.

As indicated above, certain requirements cannot be coded into the portfolio management software and are monitored manually by the Fixed Income group's management. The Compliance Team is then responsible for investigating and ensuring resolution of all post-trade compliance violations identified by the portfolio management software and management.

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VRS DUE DILIGENCE SNAPSHOT Identifying potential managers Obtaining general background information Months • Preliminary discussions via phone • Monitoring of manager for period of time (several months to years) · Meeting formally with manager Performing in-depth analysis Preparing a written proposal Negotiating contract CIO approval, hiring of manager Board reporting Years Monitoring of manager performance

EXTERNAL MANAGER DUE DILIGENCE

As discussed above, external managers oversee a relatively small portion of the Fixed Income Program portfolio. However, external managers provide a unique perspective and partnership using their expertise to enhance and grow the internal mandates. The external manager due diligence process described below supports VRS in its efforts to identify these strategic partners.

Similar to other VRS investment programs, potential new investments and managers are identified through numerous avenues including prior experience with the manager, referrals from other pension plans/managers, industry presentations, presentations to VRS staff, etc. The timing for identifying new managers is not pre-determined. Potential new managers will move through the due diligence process as suitable matches to VRS' investment needs and preferences are recognized.

Once a desirable match is identified, member(s) of the investment team will gather manager provided information and other background information through discussions with other managers, other investors, information service providers, etc. Based on an assessment of the information obtained, a determination will be made if a preliminary discussion with the manager should be scheduled.

When a preliminary discussion is desired, VRS will meet with the manager, who will present information regarding the fund and its investment strategy to VRS' investment professionals.

If the Investment Department is interested in the strategies offered by the external manager, it will begin to gather additional due diligence materials and monitor the manager's performance. This process can range from a few months to several years. The Pandemic increased the use of virtual meetings with potential and current managers.

Once VRS determines it has a true interest in investing with the external manager, the Investment Department and Compliance Team will perform an in-depth analysis of the manager and related due diligence in preparation of a written proposal. Assuming these due diligence activities do not uncover something adverse, the manager will be invited to formally present their investment opportunity. While a majority of investments that reach this stage are successful, it is also a

Fixed Income and Securities Lending Programs Pg. 11 of 21

possible outcome that information learned during the formal manager meeting would be indicative that the investment is not in alignment with VRS' goals and objectives (including fee structure) and the investment consideration would be discontinued.

As the due diligence process draws to completion, a VRS team member will prepare a written proposal (referred to as the Investment Recommendation Memorandum) with an overview of the investment and a description of numerous data points including: a summary of the investment; the firm offering it and its investment team; the strengths and weaknesses of the manager; key investment terms; asset reporting; valuation and custody; track record; risk factors; and the proposed action plan.

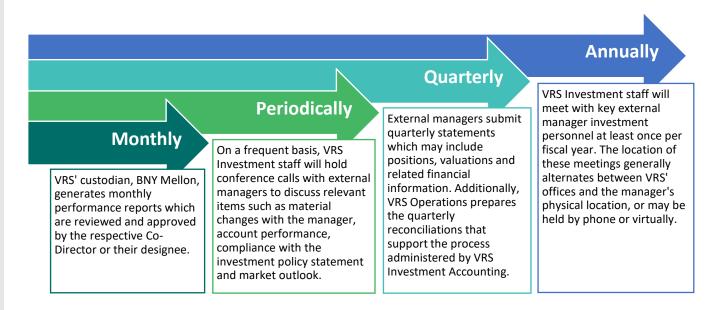
The Co-Directors of the program, or their staff designee, will generally begin contract negotiations with the external managers to define the contract terms, including the commitment amount and related fees. Additionally, the Compliance Team will begin its separate due diligence process.

The Compliance Team's process begins with a due diligence questionnaire being sent to the prospective manager. The questionnaire allows the Compliance Team to evaluate numerous areas including such items as: ownership structure, material developments, SEC registration, description of back-office operations, external audit reports, third parties utilized by the manager, description of controls including cash and custody arrangements and disclosures of any regulatory actions taken against the manager. Key personnel biographical and criminal background checks are also performed for all new managers and, as deemed appropriate, for new investments with an existing manager. Finally, the Compliance Team will hold due diligence calls with executive leadership of the potential manager.

Assuming favorable due diligence results, a contract is executed by either the CIO or the Chief Administrative Officer upon approval of the investment by the CIO. Once an executed contract is in place, the manager is considered hired. However, an initial investment may not immediately take place, as the investment timing depends on the external manager's strategy.

DUE DILIGENCE AND MONITORING OF EXISTING INVESTMENTS

Monitoring existing managers is a continuous effort that draws both on quantitative and qualitative elements. To ensure managers are adequately monitored, a cycled approach is used. Additionally, given the nature of certain managers and their accounts, a range of available data points will be available. Therefore, the Co-Directors of the Fixed Income Program and support staff use their judgement to gather and consider information relevant to the monitoring process on a manager-by-manager basis. The following graphic provides a high-level illustration of the ongoing monitoring process for external managers.



In addition to the process depicted above, an annual supplemental questionnaire is completed by each external manager and submitted to VRS. The objective of the questionnaire is to provide the VRS team updated information regarding changes in qualitative and quantitative areas of the external manager's operations. The questionnaire generally also includes a "Contract/Agreement Compliance Certification Form" which must be signed by an authorized individual. This form certifies the manager acted in compliance with the terms and conditions set forth in any and all contract/agreements between the firm and VRS from inception through the date indicated. Additionally, the Fixed Income Program also requires monthly Contract/Agreement Compliance Certification Forms be submitted by each manager.

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RECONCILIATIONS

Investment Operations performs daily and monthly reconciliations of the internally managed Fixed Income accounts. The daily reconciliations are informal reconciliations of the cash and holdings, as well as the transactions. The daily reconciliation is necessary as the Fixed Income accounts have many transactions flowing through them daily and this review quickly highlights any differences.

On a monthly basis, the Investment Operations group reconciles the activity on the portfolio management software for all internal Fixed Income accounts to BNY Mellon. The Fixed Income group then reviews and approves these reconciliations.

Quarterly, Investment Operations staff submit the monthly reconciliation corresponding to the quarter end for each internally managed account to VRS' Investment Accounting Unit for review as is required of all VRS investment managers, both internal and external, regardless of the investment type.

VRS requires all external managers of publicly traded accounts to reconcile investment balances with VRS' master custodian, BNY Mellon, on a monthly basis. For Fixed Income accounts, this reconciliation process is administered by BNY Mellon and is subject to audit as a part of its Service Organization Control (SOC) 1, Type 2 Report.

SECURITIES LENDING

While BNY Mellon administers the Securities Lending Program on behalf of VRS, the Fixed Income Team provides oversight for the program, ensuring BNY Mellon manages the program in accordance with VRS' guidelines set forth in the Master Custodial Agreement.

BNY Mellon provides several reports, including a monthly statistical snapshot of the VRS account, a monthly Securities Lending market recap,

BNY Mellon has administered VRS' Securities Lending Program since June 1988.

and a monthly risk transparency report. The Fixed Income Team uses these external manager reports, along with other reports generated from BNY Mellon's external client facing reporting system on a regular basis, to ensure compliance with the securities lending cash collateral reinvestment guidelines.

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Additionally, the Fixed Income Team utilizes an internal monthly checklist to ensure adequate monitoring over the Securities Lending Program. The checklist includes a variety of data points, including: minimum credit quality, concentration and counterparty limits, weighted average maturity and weighted to average life limits, liquidity limitations, fee split verification, as well as other relevant data elements.

SCOPE AND METHODOLOGY

The primary purposes of our examination were to:

- Determine compliance with the Fixed Income Investment Policy Statement;
- Ascertain whether due diligence and monitoring activities are sufficient and appropriate;
- Ensure Fixed Income accounting transactions are accurate, reconciled and timely recorded by BNY Mellon; and,
- Ascertain whether monitoring controls over the Securities Lending Program are sufficient and appropriate.

GENERAL ASSESSMENT AND UNDERSTANDING

We obtained a general understanding of the Fixed Income and Securities Lending Programs as well as the controls by meeting with key individuals of the Fixed Income Team. We also reviewed the applicable policies and procedures and other relevant program administration documents as of September 30, 2021.

INVESTMENT POLICY STATEMENT COMPLIANCE

We reviewed the VRS Fixed Income Investment Policy Statement to ensure it was reasonable, applicable and appropriately approved. Certain elements of the policy statement were reviewed to ensure applicable restrictions and controls are appropriately implemented.

Additionally, the portfolio management software compliance reports as of September 30, 2021, were obtained for all internally managed Fixed Income accounts. Any exceptions noted were reviewed for adequate resolution. Additionally, compliance parameters associated with each account coded in the portfolio management software were evaluated for agreement with the applicable Investment Policy guidelines.

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Monthly reporting packages were obtained as of September 30, 2021, for all externally managed accounts. We reviewed each reporting package to ensure all elements of the investment parameters included in the Investment Management Agreements are being appropriately reported and monitored.

An understanding of other manual daily monitoring activities performed was obtained and assessed for reasonableness.

INTERNAL TRADING

A random sample of 40 internal trade transactions were selected for review. In order to determine whether the transactions included in the sample were valid, accurate, timely and complete, we assessed whether:

- the transactions were properly approved;
- any amounts due or paid by VRS were accurately calculated; and
- the transactions were posted accurately to both the portfolio management software and BNY Mellon.

NEW INVESTMENT DUE DILIGENCE

For all new externally managed accounts launched during the audit period, compliance with the following was evaluated:

- The external manager's investment strategy is in line with the investment objectives included within the Investment Policy Statement;
- An Investment Recommendation Memorandum was prepared, including sufficient information to support the recommendation;
- The Investment Recommendation Memorandum was approved by the CIO;
- All legal documents were reviewed and properly executed;
- Operational due diligence, including questionnaires and background checks, was completed; and,
- The investment was reported to the Investment Advisory Committee and the Board.

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MONITORING EXISTING INVESTMENTS

All external accounts associated with the Fixed Income Program were selected to evaluate whether monitoring procedures were reasonable and documented appropriately. For each account reviewed, the following monitoring procedures were considered:

- An annual manager meeting occurred;
- A completed annual supplemental due diligence questionnaire was obtained;
- A certification stating the manager acted in compliance with the terms and conditions set forth in any and all contract/agreements was obtained; and
- Performance reports were reviewed and approved.

RECONCILIATIONS

Both the Operations and Investment Accounting departmental procedures related to the reconciliation process were obtained and reviewed for completeness and overall reasonableness. The reconciliations for all internally and externally managed accounts were selected and reviewed as of September 30, 2021. We assessed whether each reconciliation agreed to supporting documentation, reconciling items were adequately resolved, completed timely and was properly approved.

SECURITIES LENDING

To ensure adequate monitoring over the Securities Lending Program, a random sample of two monthly Securities Lending checklists were selected from the audit period for testwork. All elements on the checklist were traced to supporting documentation, including reports provided by BNY Mellon, and reviewed for overall reasonableness.

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CONCLUSIONS

GENERAL ASSESSMENT AND UNDERSTANDING

Overall, VRS complies with the Fixed Income Investment Policy Statement allowing for proper oversight of the Program's investment activities. The Fixed Income Investment Policy Statement in effect during the audit period adequately defined the investment objectives, allowable strategies, risk analysis considerations, along with due diligence expectations related to hiring and monitoring. Minor observations, which did not warrant attention in our report, have been referred to management for their consideration.

INVESTMENT POLICY STATEMENT COMPLIANCE

The Fixed Income Investment Policy Statement was updated in September 2021, however, many of the program changes captured had occurred well before the update, including:

- Separation of the previous Fixed Income Director in September 2019;
- Implementation of the Co-Director management structure in September 2019;
- Separation of a Fixed Income Portfolio Manager in December 2019; and,
- Addition of external managers to the program in January 2020 and corresponding external manager due diligence procedures.

While observed during this review, the delay in making these changes highlighted an opportunity for the Investment Department to enhance its practices around the update of all investment policy statements to ensure their continuing alignment with daily operations, intended controls and program initiatives. We discussed this opportunity with management including how certain adjustments to the Investment Policy Statement structure could enhance their ongoing maintenance. Management acknowledged concurrence and initiated efforts to update its processes.

Additionally, both Fixed Income Investment Policy Statements dated October 2018 and September 2021 prohibit the use of soft dollar transactions. However, the Investment Management Agreements for two of the four external manager relationships did not prohibit the use of soft dollar transactions. These two managers transitioned from the Credit Strategies Program, which did allow the use of soft dollar transactions, to the Fixed Income program. This restriction was not included in

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the contract amendment executed when they were moved. When brought to their attention, management immediately began working to resolve this matter and ensure both Investment Management Agreements aligned with the Investment Policy Statement.

Generally, portfolio management software compliance guidelines applied to each internally managed account were properly coded. Additionally, no exceptions were identified on the portfolio management software compliance monitor reports as of September 30, 2021, for any of the internal Fixed Income accounts.

Management has since shifted from defining such compliance guidelines as rules within the portfolio management software to warnings. In practice the rules tended to generate false positives, requiring administrative resources to investigate and resolve. By shifting to warnings, the Fixed Income team can consider the compliance guideline as they execute the investment without excessively burdening staff.

Finally, the September 2021 monthly reporting packages provided by each external manager were reasonable and the monthly compliance attestation completed by each external manager certifying they have complied with all elements of the Investment Management Agreement was present.

INTERNAL TRADING

For the sample of internal trade transactions, we determined all transactions were properly approved; amounts due or paid by VRS were accurately calculated; and the transactions were posted accurately to the portfolio management software and BNY Mellon.

NEW INVESTMENT DUE DILIGENCE

We determined no external manager accounts were onboarded to the Fixed Income Program during the 6-month audit period preceding the audit as of date of September 30, 2021. Therefore, no accounts were selected for new investment due diligence testwork.

MONITORING EXISTING INVESTMENTS

Substantial and sufficient monitoring activities are being applied for all Fixed Income Program investment external manager relationships.

Fixed Income and Securities Lending Programs Pg. 19 of 21

RECONCILIATIONS

The Operations and Investment Accounting Teams have appropriate reconciliation procedures and processes in place to ensure all Fixed Income accounts are adequately reconciled. The September 30, 2021, Fixed Income reconciliations for all internal and externally managed accounts were found to be adequately supported, completed timely and appropriately approved.

SECURITIES LENDING

Substantial and sufficient monitoring activities are being applied over the Securities Lending Program. Both Securities Lending checklists selected for testwork agreed to supporting documentation.

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 Mr. Schmitz 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 September 13, 2022.

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

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VRS EXECUTIVE LEADERSHIP

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AUDITOR OF PUBLIC ACCOUNTS

Staci Henshaw

JLARC

Kimberly A. Sarte
Jamie Bitz

PRINCIPAL AUDITOR IN-CHARGE

Joshua Fox, CIDA, CIA, CFE

AUDIT SUPERVISOR

Judy Bolt, CPA, CIA, CISA, CFE

Fixed Income and Securities Lending Programs Pg. 21 of 21

Annual Progress Reports for FY 2022



Internal Audit
FY2022 Annual Report
As of June 30, 2022





The Year in Review



Key Activities



Supporting VRS

Remaining agile and enhancing our partnerships internally and externally



Supporting agency initiatives including:

- Diversity Program
- Enterprise Risk Management
- Enterprise Performance Management
- Records Management

Dedicated to VRS' Commitment

"Serving those who serve others" by serving VRS

Continuous Improvement

Continued expansion of Internal Audit's access to data and business intelligence capabilities through cross-training and ongoing inter-departmental collaborative activities





Enhancement of audit tools and procedures supporting the audit process especially regarding communication and IT

Review and analysis of the Internal Audit Departmental Charter



Preparing for Change



Emphasis on growing responsibilities over IT assurance

Updates to IIA's International Professional Practices Framework (IPPF) through its IPPF Evolution Project



Key Activities



Issuing Informative Reports



Highlighting

- VRS' Core Values in Action
- Significant organizational initiatives and enhancements

Offering both formal and informal observations to support VRS' Vision:

To be the trusted leader in the delivery of benefits and services to those we serve



Focus on Independence and Objectivity



Maintaining our independence through annual Conflict-of-Interest certifications and communication in accordance with the IIA Standards and acknowledgement of responsibility for VRS' Code of Ethics and those of relevant professional organizations.

Providing Assurances regarding:

- Oversight of VRS' Administrative Hosted Systems
- Reliability of the application controls over VRS' VNAV and Enterprise Content Management (ECM) Systems
- Accuracy of Monthly Retirement Benefit Payments and Changes to those Payments
- Conformance of VRS' information security program with the Virginia Information Technologies Agency's (VITA) standards
- Accuracy of cost-of-living allowances recommended by the VRS actuary
- Oversight and administration of VRS cash forecasting and management to support investment initiatives, benefit payments and administrative activities
- Effectiveness of the design and implementation of IT general controls supporting VRS' IT environment and applications
- Processing of Disability Retirements
- Oversight of the Fixed Income and Securities Lending Programs
- Accuracy of Investment Incentive Compensation
- Fulfillment of VRS' Performance Outcomes

Annual Quality
Assurance
Improvement
Program Review

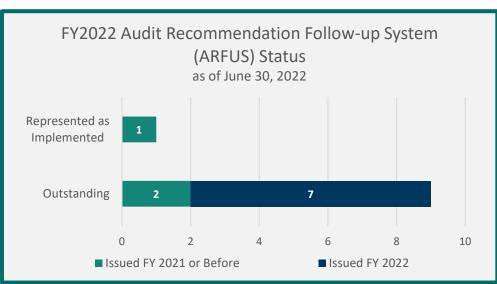
Quarterly
Reporting on
Fraud, Waste and
Abuse Hotline
Cases

Annual Audit Recommendation Follow-up System (ARFUS) Review

FY 2022 Annual Plan Dashboard











FY 2022 Projects In Progress

Reporting out in September

- Disability Retirements
- Fixed Income and Securities Lending Programs

Reporting out in December

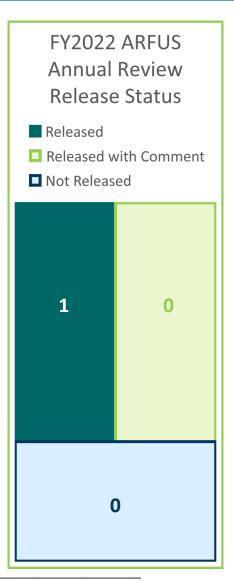
- General Ledger Review
- myVRS Review

FY 2022 Annual ARFUS Review Results



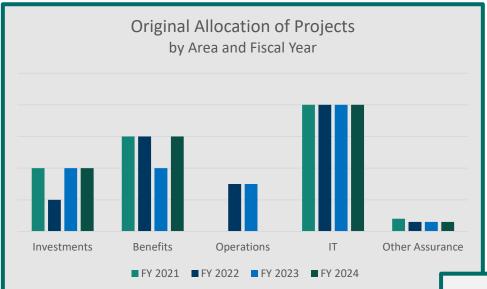


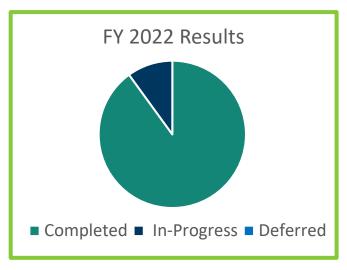
- As of June 30, 2022, ARFUS included a total of ten recommendations.
- Management represented one recommendation in ARFUS as implemented.
- Upon review, it was released.
- Outstanding recommendations will remain in ARFUS until represented as implemented by management and reviewed by Internal Audit for reasonableness.



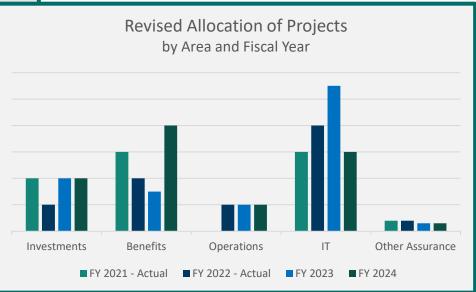
FY 2021 – FY 2024 Long-Range Plan Dashboard







- Considering FY 2022's results and VRS' changing risk landscape, the timing and execution of the remaining approved projects have been adjusted.
- Additional growth is anticipated in the IT area due to enhanced risk assessment activities by VRS IT to support VRS' move into the Cloud. These risk assessments will be leveraged to continuously assess the approach for and timing of our IT work.





A Look Forward



Maintaining Quality Audit Staffing





- Given the complexity of VRS' operations, the department does not employ entry level auditors
- Combined, the current team has 100 years experience in the auditing profession
- Each member holds two or more professional designations
- Continuing professional education is required to maintain professional designations and helps to ensure the continued quality of the work performed by the team by honing their knowledge, skills and abilities.



Growing our Bench Strength for the Future



Given VRS' intentional and thoughtful move to the Cloud over the next several years, the knowledge, skills and abilities needed to adequately support our VITA-mandated audit responsibilities in the future will inherently grow in complexity. We are actively participating in training to prepare the team for the changing landscape but recognize we will benefit from additional technically trained resources in the IT audit space.





Team Members and Qualifications



Matt Priestas

Principal Auditor for Information Technology, Security, Systems Development and Project Management

> CISA, CIA, PMP, CRMA

B.S. in Management Information Systems, East Carolina University

Joined VRS in 2008, previously worked for the APA

> Newscenter SharePoint Site Administrator, APPFA liaison

Judy Bolt

Principal Auditor for Benefits, Operations and Quality Assurance

> CPA, CIA, CFE, CISA

B.S. in Accounting, Virginia Commonwealth University (VCU)

Joined VRS in 2012, previously worked for the APA and Owens and Minor

Lead for the Quality
Assurance and
Improvement
Program

Josh Fox

Principal Auditor for Investments and Operations

CIA, CIDA, CFE

B.S. in Finance and Management, Virginia Polytechnic Institute and State University (Virginia Tech)

Joined VRS in 2014, previously worked for the APA

Lead for Investments, training as business intelligence back-up

Krystal Groff

Principal Auditor for Business Intelligence

Kristy Scott

Principal Auditor for Governance and Program Administration

Jennifer Schreck

Internal Audit Director

CIA, CISA

B.S. in Computer Science, University of Mary Washington; M.S. in Nursing Informatics, Duke University

Joined VRS in 2015, previously worked for the Federal Reserve Bank of Richmond, Capital One and Circuit City

Experience with various technologies and programming languages including: SQL, Tableau, Ab Initio, UNIX and C CPA, CISA, CIA

B.B.A.,
Roanoke College; PostBaccalaureate
Certificate in
Accounting, VCU; holds
COSO Enterprise Risk
Management
Certificate

Joined VRS in 2018, previously worked for the APA

Team SharePoint Site Administrator, training as business intelligence back-up CPA, CISA, PMP

B.S. in Accounting, College of William and Mary

Joined VRS in 2015, previously worked for the APA

Holds an Associates Certificate in Project Management and a Master's Certificate in IT Project Management

Proposed FY 2023 Annual Plan



Derived from Approved Long-Range Plan. Adjusted for revised risk assessment and operational considerations.

Carry Over

Fixed Income Program and Securities Lending (Reporting in Sept)

Disability Retirements (Reporting in Sept)

myVRS Review (Reporting in Dec)

Report on Fraud, Waste and Abuse Hotline Cases

Investments

Credit Strategies
Program
and
Private
Investment
Partnerships
(PIPS)

On-Site Review of Bank of New York Mellon

Review of Investment Incentive Compensation Plan

Benefits

Retirement Application Processing

Refunds

(Will start in FY2023 and carry over to FY2024)

Managed
Disabilities
Programs
(VSDP and VLDP)
(Deferred)

Operations

Human Resources, Internal Payroll and Leave Administration

Information Technology

Conformance of VRS Information Security Program with VITA Standards

> General Ledger Review

Investment
Decision Systems
Review

Logical and Physical Access Review

VRS Infrastructure Review

Review Results of Agency Performance Outcomes Verification of Cost of Living Adjustments

Development and Administration of Augmentation Program for FY 2023

ANNUAL REPORT ON THE AUDIT RECOMMENDATION FOLLOW-UP SYSTEM As of June 30, 2022

BACKGROUND

The Audit Recommendation Follow-Up System (ARFUS) is a reporting mechanism for monitoring the status of audit recommendations issued by Internal Audit, the Auditor of Public Accounts (APA) or other external entities. Internal Audit maintains the information recorded in ARFUS with the cooperation and assistance of management.

On a quarterly basis, Internal Audit requests and receives progress reports from management on outstanding recommendations, which describe the status of the actions taken in response to the recommendations. While compiled by Internal Audit, the information included in the quarterly summary reflects the representations of the responsible party and are not subject to verification by Internal Audit at that time. Recommendations represented as "implemented" remain in ARFUS until Internal Audit performs its review to obtain reasonable assurance that the essence of the recommendation has been implemented.

Annually, Internal Audit conducts its limited review on all recommendations represented as implemented to obtain assurance that management has in fact reasonably addressed these recommendations. Where reasonable

ARFUS Activity during FY 2022											
ARFUS Components	Internal Audit	APA*	Total								
Total Outstanding Recommendations as of June 30, 2021	3	_	3								
Recommendations Added during FY 2022	7	_	7								
Total Recommendations for FY 2022 (available for remediation)	10	ı	10								
Informational: Recommendations Represented as Implemented during FY 2022	1	-	1								
Represented Recommendation(s) tested and released by Internal Audit (see page 2) Represented Recommendation(s) tested and	(1)		(1)								
released by APA (see page 4)	_	-	_								
Total Outstanding Recommendations as of June 30, 2022 (see page 2)	9	_	9								

^{*} Recommendations issued by the APA are listed separately from the Internal Audit activity above, as the decision to issue or release such findings rests with their office.

implementation is confirmed, the recommendation is released from ARFUS and is no longer subject to monitoring by Internal Audit. Further, Internal Audit identifies the addition and removal of any audit recommendations issued by the APA within ARFUS based upon a review of APA reports.

The purpose of this report is to convey the results of our review regarding the audit recommendations represented as implemented as of June 30, 2022.

RECOMMENDATION VALIDATION AND RELEASE FROM ARFUS

During fiscal year 2022, management represented one recommendation as implemented. Internal Audit reviewed this recommendation to validate that it was reasonably addressed. This review was not designed to test the operational effectiveness of the implemented controls. The testing of these controls will be considered within the scope of future audits. Our review found the recommendation has been sufficiently implemented and no longer warrants oversight. Accordingly, Internal Audit is releasing this recommendation from ARFUS.

STATUS OF RECOMMENDATIONS REPRESENTED AS IMPLEMENTED

The table below reflects the status of each recommendation represented as implemented (with explanatory comments as appropriate). Please note that the "Audit # - Audit Name" has been hyperlinked to the applicable audit report and management response within Directors Desk.

Audit # - Audit Name	Recommendation Represented as Implemented	Management's Target Date	Completion Date	Audit Comments
425 – Review of the General Controls within the IT Client Server Enironment	Enhance Management of Policy and Procedure Documents	January 31, 2022* December 31, 2021 June 30, 2021 December 31, 2020	January 31, 2022	Released without Comment Fully Implemented

^{*}The Director's Executive Committee approved revisions to the original target date as reflected in the table above.

OUTSTANDING AUDIT RECOMMENDATIONS AS OF JUNE 30, 2022

The following is a list of outstanding recommendations remaining in ARFUS as of June 30, 2022. Please note that the "Audit # - Audit Name" has been hyperlinked to the applicable audit report and management response within Directors Desk.

Audit # - Audit Name	Recommendation	Report Date	Management's Target Date
412 – Hybrid Plan	Improve the Expected versus Actual Contributions Reconciliation Review Process	11/01/2017	July 1, 2024* 12/31/2019
425 – Review of the General Controls within the IT Client- Server Environment	Update Retention and Disposition Schedules to align with Library of Virginia Standards as well as VRS' Actual Practice	08/01/2019	TBD* 06/30/2021

439 – Review of the Vendor Hosted Systems in Administrative Operations	Update Policies and Procedures and Promote Organizational Awareness	August 1, 2021	TBD
439 – Review of the Vendor Hosted Systems in Administrative Operations	Enhance Risk Monitoring of Hosted System Vendors	August 1, 2021	TBD
439 – Review of the Vendor Hosted Systems in Administrative Operations	Evaluate Vendor Risk Management Considerations in the Procurement Process	August 1, 2021	TBD
444 – Review of IT General Controls	Ensure Completion of Required Continuity Plan Testing, Training Exercises and Review	May 20, 2022	December 31, 2022
444 – Review of IT General Controls	Improve Configuration and Procedural Documentation Update Process	May 20, 2022	April 1, 2023
444 – Review of IT General Controls	Fortify Processes Surrounding Devices Used for International Travel	May 20, 2022	October 31, 2022

444 – Review of IT General Controls	Enhance Data Fix Processes and Controls	May 20, 2022	June 30, 2023
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^{*}The Director's Executive Committee approved revisions to the original target date as reflected in the table above.

RECOMMENDATIONS ISSUED BY THE APA

Recommendations issued and released by the APA are captured based on the results reflected in their reports and are included below for informational purposes. Please note that the "Audit Name" has been hyperlinked to the applicable audit report on the APA's website.

Audit Name	Recommendation	Represented as Implemented? (Y/N)	Management's Target Date	Completion Date	Audit Comments
	-	-	_	_	_



As of June 30, 2022

Internal Audit FY2022 Annual Audit Plan Progress Report

Progress Summary 1
Detailed Analysis 2-3
Explanatory Notes and Acronyms 4



FY2022 Annual Audit Plan Progress Summary – as of June 30, 2022

Projects Remaining	Projects in Progress (% Complete)	Projects Completed
		Review of IT General Controls (Report No. 444)
		Cash Management (Report No. 443)
		Verification of Cost-of-Living Adjustments
		Conformance of VRS Information Security Program with VITA Standards (Report No. 442)
	Disability Retirements (94%) (Presenting as Report No. 445)	Internal Quality Assurance Improvement Program Review for 2021
	Fixed Income (88%) (Presenting as Report No. 446)	Retiree Payroll – Processing and Changes (Report No. 441)
	MyVRS Review (9%)	Review of FY2021 Investment Incentive Compensation Plan
	(Presenting in December)	Review of FY2021 Agency Performance Outcomes and Operational Measures
	General Ledger (16%) (Presenting in December)	FY2021 Audit Recommendation Follow-up System Review
	Review of 2022 Agency Performance Outcomes and Operational Measures (50%)	Application Controls – VNAV and ECM (Report No. 440)
	(Presenting at September Meeting)	Hosted Systems Review - Administration (Report No. 439)
	FY2022 Annual Audit Recommendation Follow-up System Review (50%) (Presenting at September Meeting)	
		Annually Recurring Tasks/Other Unplanned o Unavailable Time
0%	50%	100%

91% of the planned work was completed during the work plan year based on the adjusted budgets.

FY2022 Annual Audit Plan - Progress Report - Detailed Analysis Budget vs. Actual - As of June 30, 2022

	Budgeted Hours	Status	Total Actual Hours to Date	Estimated Remaining Hours	Actual or Estimate of Total Hours Needed	Estimated Variance Over/ (Under)
RISK BASED PROJECTS						
Carry Over from Prior Annual Plan						
Retiree Payroll - Processing and Changes	550	Complete	796	-	796	246
Hosted Systems Review (Administration)	300	Complete	320	-	320	20
VNAV and Related Systems Review	300	Complete	240	-	240	(60)
Investments						
Fixed Income Program and Securities Lending (1)	600	In progress	713	100	813	213
Benefits						
Disability Retirements ⁽²⁾	700	In progress	788	45	833	133
Operations						
Cash Assets and Cash Management (Administration and Investments) (3)	600	Complete	794	-	794	194
Information Technology						
Conformance of VRS Information Security Program with VITA Standards	150	Complete	206	-	206	56
General Controls Review over VRS' Operating Environment (4)	800	Complete	1,359	-	1,359	559
General Ledger Review ⁽⁵⁾	300	In Progress	119	625	744	444
myVRS Review ⁽⁵⁾	500	In Progress	48	500	548	48
OTHER AUDIT REPORTING AND SUPPORT						
Other Reporting						
Audit Quality Assurance Improvement Program	150	Complete	147	_	147	(3)
Audit Recommendation Follow-Up System Annual Review (6)	150	FY21 Complete	111	_	111	(39)
Audit Recommendation Follow-Up System Quarterly Monitoring	25	Ongoing	58	_	58	33
Modernization Program Monitoring	60	Complete	64	-	64	4
Report on Fraud, Waste and Abuse Hotline Cases	75	Ongoing	11	-	11	(64)
Review of Investment Incentive Compensation Plan	75	Complete	76	-	76	1
Review Results of Agency Performance Outcomes (APOs) (6)	75	FY21 Complete	86	-	86	11
Verification of Cost of Living Adjustments (COLAs)	20	Complete	9	-	9	(11)
Audit Support						
Coordination with the APA	40	Ongoing	13	-	13	(27)
Data Analytics and Support	900	Ongoing	817	-	817	(83)
Develop and Update Annual and Long-Range Plans	125	Ongoing	72	-	72	(53)
Monitor Annual and Long-Range Plan Progress	100	Ongoing	127	-	127	27

FY2022 Annual Audit Plan - Progress Report - Detailed Analysis Budget vs. Actual - As of June 30, 2022

	Budgeted Hours	Status	Total Actual Hours to Date	Estimated Remaining Hours	Actual or Estimate of Total Hours Needed	Estimated Variance Over/ (Under)
OTHER AUDIT REPORTING AND SUPPORT, Continued						
Audit and Compliance Committee Support						
Review, Compile and Publish Meeting Materials	300	Ongoing	284	-	284	(16)
Attend Audit and Compliance Meetings	80	Ongoing	68	-	68	(12)
Prepare Committee Report and Meeting Minutes	80	Ongoing	51	-	51	(29)
ONGOING ACTIVITIES						
Risk Monitoring Activities						
Attend Board and other Committee Meetings	170	Ongoing	200	-	200	30
Attend Executive Team Meetings (DEC, Roadmap, C-suite)	100	Ongoing	103	-	103	3
Monitor and Review Professional Literature	90	Ongoing	95	-	95	5
Participate in Professional Organizations	90	Ongoing	24	-	24	(66)
Other Administrative Activities						
Continuing Professional Education	360	Ongoing	386	-	386	26
Continuing Professional Education Administration	150	Ongoing	70	-	70	(80)
External Reporting and Other Interactions (OSIG/VITA)	10	Ongoing	25	-	25	15
Internal Audit Staff Meetings and Mentoring	300	Ongoing	466	-	466	166
Manage Budget, Departmental Files, SPCC, and Purchasing	100	Ongoing	66	-	66	(34)
Participate in VRS Events/Committees	150	Ongoing	146	-	146	(4)
Performance Standards and Evaluations	60	Complete	44	-	44	(16)
OTHER TIME						
Annual Leave	850	Ongoing	1,078	-	1,078	228
Holidays	648	Ongoing	696	-	696	48
Other Leave (Sick, Personal, Volunteer, etc)	660	Ongoing	701	-	701	41
Unplanned Hours ⁽⁷⁾	1,687	Ongoing	1,049	-	1,049	(638)
TOTAL TIME ⁽⁸⁾	12,480		12,526	1,270	13,796	1,316

FY2022 - Annual Audit Plan Progress - Detailed Analysis

Budget vs. Actual - as of June 30, 2022

Explanatory Notes:

- (1) This program was last reviewed in 2016. Given the duration since the last audit, the enhancements to the program and changes in leadership and focus for the program, certain adjustments were made to help to enrich our audit coverage over risks within the program and administration of investments leading to the observed overage.
- ⁽²⁾ This area was last reviewed in 2014. Given the duration since the last audit and changes to the information technology systems, data structures and processes supporting this activity, these overages are not unreasonable and allowed for enhanced knowledge to be gained around the processing of retirements overall which will support the execution of upcoming projects.
- (3) This function which crosses the administrative and investment areas of the organization was reviewed for the first time in 2022. As a result, additional planning considerations were necessary to ensure the scope and planned approach were appropriately considered.
- (4) The complexity and therefore breadth of work required to assess the effectiveness of VRS' implementation of its Information Security Program continues to grow.

 Observed overages were necessary to ensure procedures over required program compliance related testwork could be addressed. The implications of the breadth of audit requirements around VRS' general control environment will likely lead to adjustments in how this project is scoped in the future.
- (5) These projects as approved were planned to start later in the fiscal year and therefore were already expected to carry over into the next audit plan year. As they started later than originally anticipated adjustments will be made when developing the proposed annual plan for FY2023 to accommodate the shift in timing of this work as well as to allow for other scope enhancements deemed appropriate given the risks surrounding these system application reviews.
- (6) These projects reflect annually recurring tasks which require testwork to be initiated in one audit plan year and the conclusion and reporting to occur in the next. The actual hours to date reflect time spent completing the FY2022 projects and initiating the FY2023 projects.
- (7) The unplanned hours reported reflect departmental items not explicitly planned for in our original budget, such as
 - (A) Administrative and computer issues;
 - (B) VRS provided training;
 - (C) Internal Audit's involvement in VRS' Enterprise Risk Management and Enterprise Performance Management Initiative;
 - (D) Internal Audit's involvement in VRS' Record Management Project;
 - (E) Review and enhancement of departmental policies and procedures and supporting tools;
 - (F) Collaboration with the Information Technology Department; and
 - (G) Continued enhancement of SharePoint capabilities to store and manage audit documentation.
- (8) Total time for the year was budgeted based on the average of 2080 man hours being available in a year; however, in FY 2022 there were actually 2088 man hours available based on the timing of the weekdays versus weekends. In addition, staff work various "flex" schedules, the timing of those flex schedules allowed for 8 additional hours to be worked during the period. Therefore, 46 additional hours were worked over the budgeted hours.

Acronyms (Not defined elsewhere):

APA Auditor of Public Accounts

ARFUS Audit Recommendation Follow-Up System

C-suite Chief Executives for VRS, including the Executive Director, Chief Investment Officer and Internal Audit Director

DEC Director's Executive Committee
IIA Institute of Internal Auditors

ISACA Information Systems Audit and Control Association

OSIG Office of the State Inspector General

Roadmap Program management tool used by VRS management to monitor critical organizational activities

SPCC Small Purchase Charge Card

VITA Virginia IT Agency



Internal Audit
FY 2021 – FY 2024
Long-Range Plan
Progress Report
As of June 30, 2022

Analysis and Explanatory Comments 1-3
Legend, Notes and Acronyms 4



Virginia Retirement System

Approved Long-Range Plan FY2021 - FY2024 - Progress and Adjustments as of June 30, 2022

Approved Projects	Approved Total	Act	ual	Approved	l Budgets	Total	Variance	Comments
Approved Projects	Budgeted Hours	FY2021	FY2022	FY2023	FY2024	Total	Variance	Comments
RISK BASED PROJECTS								
Carry Over from Prior Long-Range Plan								
Line of Duty Act	50	60				60	10	Complete
Member and Employer Contributions	200	220				220	20	Complete
Portfolio Intelligence Team	100	120				120	20	Complete
Investments								
Credit Strategies Program and Private Investment Partnerships (PIP)	600			600		600	-	
Fixed Income Program and Securities Lending	600		700	100		800	200	Complete - See FY2022 Annual Plan Progress Report
Global Public Equity Program	600				600	600	-	
Internal Public Equity Program	550	900				900	350	Complete - See FY2021 Annual Plan Progress Report
Investment Balances, Performance Reporting	750				750	750		
and Investment Manager Compensation	730				/30	/30	_	
On-Site Review of Bank of New York Mellon	600			450		450	(150)	Adjusting scope to allow for focus on higher risk projects
Private Equity Program	600	750				750	150	Complete - See FY2021 Annual Plan Progress Report
Benefits								
Deferred Compensation, Cash Match Plans, ORPs, VOLSAP and the Benefit Restoration Plan	700				-	-	(700)	Project deferred for consideration in a later period as the risk profile for the audit area has changed
Disability Retirements	700		775	45		820	120	Complete - See FY2022 Annual Plan Progress Report
Health Insurance Premiums and Credits	400	400				400	-	Complete
Long-Term Care Program	400		-		400	400	-	Moved to FY2024 to accommodate adjustments to IT and other project timing
Managed Disabilities Programs (VSDP and VLDP)	800			-		-	(800)	Project deferred for consideration in a later period as the risk profile for the audit area has changed
Member and Employer Contributions	700				700	700	-	
Optional Retirement Plan Higher Education (ORPHE)	600	600				600	-	Complete
Purchase of Prior Service	700				700	700	-	
Refunds	800		-	200	600	800	-	Moved to begin in FY2023 and carry over to FY2024 to accommodate adjustments to IT and other project timing
Retiree Payroll - Processing and Changes	800	650	600			1,250	450	Increased project hours to address expanded scope and process changes since previous audit, resulting in carry over
Retirement Application Processing	800		-	800		800	-	Pushed back to FY2023 to better accommodate project timing
Operations								
Cash Assets and Cash Management (Administration and Investments)	600		750			750	150	Complete
Human Resources, Internal Payroll and Leave Administration	600			600		600	-	
Procurement and Contract Management (Administration and Investments)	600		-	-	600	600	-	Moved from FY2022/FY2023 to FY2024 to accommodate adjustments to IT and other project timing

Virginia Retirement System Approved Long-Range Plan FY2021 - FY2024 - Progress and Adjustments as of June 30, 2022

Approved Projects	Approved Total	Act	ual	Approved	Budgets	Total		
Approved Projects	Budgeted Hours	FY2022	FY2023	FY2024	FY2024	TOTAL		
RISK BASED PROJECTS, Continued								
Information Technology ⁽¹⁾								
Conformance of VRS Information Security Program with VITA Standards	600	150	150	150	150	600	-	Complete
General Controls Review over VRS' Operating Environment (Infrastructure Systems, excluding Physical Access)	800		1,200			1,200	400	Complete - See FY2022 Annual Plan Progress Report
General Ledger Review	600		100	600		700	100	Later start, requiring more time in FY2023 audit plan, expected reporting in December 2022
Hosted Systems Review - Administration	1,000	400	300		700	1,400	400	Complete
Hosted Systems Review - Investments	600			-		-	(600)	Merged into next cycling of the Hosted Systems - Administration project. Both follow same process, resulting in a net budgetary savings across the two projects
Investment Decision Systems Review	600			600		600	-	
Logical and Physical Access Review (RAMS and Physical Access Infrastructure Systems)	700			700		700	-	
myVRS Review	500		50	500		550	50	Delayed start, will carry over into FY2023 audit plan, expected reporting in December 2022
VNAV and Related Systems Review	1,600	500	250		600	1,350	(250)	Complete
VRS Public Website Review	1,000	-			-	-	(1,000)	Project deferred for consideration in a later period as the risk profile for the audit area has changed
VRS Infrastructure Review				***				Special Project to be realized through supplemental resources
OTHER AUDIT REPORTING AND SUPPORT								
Other Reporting								
Audit Quality Assurance Improvement Program	600	150	150	150	150	600	-	
Audit Quality Assurance Review - External (1 every 5 years)	10				10	10	-	
Audit Recommendation Follow-Up System Annual Review	600	150	150	150	150	600	-	
Audit Recommendation Follow-Up System Quarterly Monitoring	100	25	25	25	25	100	-	
Modernization Program Monitoring	200	280	60			340	140	Modernization Phase Four project schedule extended. Adjusted to include final reporting of the Modernization Program
Report on Fraud, Waste and Abuse Hotline Cases	300	75	75	75	75	300	-	
Review of Investment Incentive Compensation Plan	300	75	75	75	75	300	-	
Review Results of Agency Performance Outcomes (APOs)	300	75	75	75	75	300	-	
Verification of Cost of Living Adjustments (COLAs)	80	20	20	20	20	80	-	

Virginia Retirement System Approved Long-Range Plan FY2021 - FY2024 - Progress and Adjustments as of June 30, 2022

Approved Projects	Approved Total	Act	ual	Approved	Budgets	Total		
прриотеа појеса	Budgeted Hours	FY2021	FY2022	FY2023	FY2024			
OTHER AUDIT REPORTING AND SUPPORT, Continued								
Audit Support								
Coordination with the APA	160	40	40	40	40	160	-	
Data Analytics and Support	3,600	900	900	900	900	3,600	-	
Develop and Update Annual and Long-Range Plans	600	125	125	125	225	600	-	
Monitor Annual and Long-Range Plan Progress	400	100	100	100	100	400	-	
Audit and Compliance Committee Support								
Review, Compile and Publish Meeting Materials	1,200	300	300	300	300	1,200	-	
Attend Audit and Compliance Meetings	320	80	80	80	80	320	-	
Prepare Committee Report and Meeting Minutes	320	80	80	80	80	320	-	
ONGOING ACTIVITIES								
Risk Monitoring Activities								
Attend Board and other Committee Meetings	680	170	170	170	170	680	-	
Attend Executive Team Meetings (DEC, Roadmap, C-suite)	400	100	100	100	100	400	-	
Monitor and Review Professional Literature	360	90	90	90	90	360	-	
Participate in Professional Organizations	260	00	00	00	00	260		
(APPFA, IIA, ISACA, Tableau User Groups)	360	90	90	90	90	360	-	
Other Administrative Activities								
Continuing Professional Education	1,440	360	360	360	360	1,440	-	
Continuing Professional Education Administration	600	150	150	150	150	600	-	
External Reporting and Other Interactions (OSIG/VITA)	40	10	10	10	10	40	-	
Internal Audit Staff Meetings and Mentoring	1,200	300	300	300	300	1,200	-	
Manage Budget, Departmental Files, SPCC, and Purchasing	400	100	100	100	100	400	-	
Participate in VRS Events/Committees	600	150	150	150	150	600	-	
Performance Standards and Evaluations	240	60	60	60	60	240	-	
OTHER TIME								
Annual Leave	3,000	900	850	850	800	3,400	400	Adjusted to reflect actual staff leave trends given tenure
Holidays	2,496	696	648	672	600	2,616	120	Adjusted to reflect adjustments to state holidays
Other Leave (Sick, Personal, Volunteer, etc)	2,640	850	660	660	660	2,830	190	
Unplanned Hours	4,524	1,229	1,612	1,178	735	4,754	230	Adjusted based on other adjustments and to accommodate certain strategic initiatives
TOTAL TIME	49,920	12,480	12,480	12,480	12,480	49,920		

Virginia Retirement System

Approved Long-Range Plan FY2021 - FY2024 - Progress and Adjustments as of June 30, 2022

Legend - See explanatory notes provided in the "Comments" column.

Project complete.

Project "In Progress" at fiscal year end. Will require carry over hours in the next annual plan to be completed.

Project deferred.

Proposed project hours adjusted.

Other Notes:

(1) These approved projects are subject to VITA's mandated 3-year audit cycle. Therefore, projects scheduled in FY 2021 will be repeated in FY 2024, unless their VITA reported risk assessment is changed during the annual IT risk assessment update process.

Acronyms not Described Elsewhere:

APA - Auditor of Public Accounts

APPFA - Association of Public Pension Fund Auditors

ARFUS - Audit Recommendation Follow-Up System

C-suite - Chief Executives for VRS, including the Executive Director, Chief Investment Officer and Internal Audit Director

DEC - Director's Executive Committee

IIA - Institute of Internal Auditors

ISACA - Information Systems Audit and Control Association

IT - Information Technology

myVRS - web-based portal for members developed through the Modernization program

OSIG - Office of the State Inspector General

Roadmap - program management tool used by VRS management to monitor critical organizational activities

SPCC - Small Purchase Charge Card

VITA - Virginia Information Technologies Agency

VNAV - myVRS Navigator, administrative system developed through the Modernization program

Proposed FY 2023 Annual Plan



Internal Audit Proposed FY 2023 Annual Plan

Proposed Plan _____1-2
Explanatory Notes and Acronyms _____3



Virginia Retirement System Proposed FY 2023 Annual Plan

Approved Projects	Original FY 2023 Budget	FY 2022 Plan Carry Over	Other Proposed Changes	Proposed FY 2023 Plan
RISK BASED PROJECTS				
Carry Over from Prior Annual Plan (1)				
Fixed Income Program and Securities Lending	-	100		100
Disability Retirements	-	50		50
myVRS Review	-	500		500
Investments				
Credit Strategies Program and Private Investment Partnerships (PIP)	600			600
On-Site Review of Bank of New York Mellon (2)	600		(150)	450
Benefits				
Managed Disabilities Programs (VSDP and VLDP) (3)	800		(800)	-
Refunds	200			200
Retirement Application Processing	800			800
Operations				
Human Resources, Internal Payroll and Leave Administration	600			600
Information Technology				
Conformance of VRS Information Security Program with VITA Standards	150			150
General Ledger Review (4)	300		325	625
Investment Decision Systems Review	600			600
Logical and Physical Access Review	700			700
VRS Infrastructure Review (5)	***		125	125
OTHER AUDIT REPORTING AND SUPPORT				
Other Reporting				
Audit Quality Assurance Improvement Program	150			150
Audit Recommendation Follow-Up System Annual Review	150			150
Audit Recommendation Follow-Up System Quarterly Monitoring	25			25
Report on Fraud, Waste and Abuse Hotline Cases	75			75
Review of Investment Incentive Compensation Plan	75			75
Review Results of Agency Performance Outcomes (APOs)	75			75
Verification of Cost of Living Adjustments (COLAs)	20			20

Virginia Retirement System Proposed FY 2023 Annual Plan

Proposed Fr 2025 Attitual Flati										
Approved Projects		Original FY	FY 2022 Plan	Other Proposed	Proposed FY					
дриочей гојеста		2023 Budget	Carry Over	Changes	2023 Plan					
OTHER AUDIT REPORTING AND SUPPORT, Continued										
Audit Support										
Coordination with the APA		40			40					
Data Analytics and Support		900			900					
Develop and Update Annual and Long-Range Plans		125			125					
Monitor Annual and Long-Range Plan Progress		100			100					
Audit and Compliance Committee Support										
Review, Compile and Publish Meeting Materials		300			300					
Attend Audit and Compliance Meetings		80			80					
Prepare Committee Report and Meeting Minutes		80			80					
ONGOING ACTIVITIES										
Risk Monitoring Activities										
Attend Board and other Committee Meetings		170			170					
Attend Executive Team Meetings (DEC, Roadmap, C-suite)		100			100					
Monitor and Review Professional Literature		90			90					
Participate in Professional Organizations		90			90					
(APPFA, IIA, ISACA, Tableau User Groups)					90					
Other Administrative Activities										
Continuing Professional Education		360			360					
Continuing Professional Education Administration		150			150					
External Reporting and Other Interactions (OSIG/VITA)		10			10					
Internal Audit Staff Meetings and Mentoring		300			300					
Manage Budget, Departmental Files, SPCC, and Purchasing		100			100					
Participate in VRS Events/Committees		150			150					
Performance Standards and Evaluations		60			60					
OTHER TIME										
Annual Leave		850			850					
Holidays ⁽⁶⁾		600		72	672					
Other Leave (Sick, Personal, Volunteer, etc)		660			660					
Unplanned Hours ⁽⁷⁾		1,245		(222)	1,023					
	TOTAL TIME	12,480	650	(650)	12,480					

Virginia Retirement System Proposed FY 2023 Annual Plan

Notes:

- 1) Due to unforeseen circumstances impacting the timing of work, certain audit projects will initiate in one fiscal year and be reported out in the next fiscal year. Typically they are reported out at the September Audit and Compliance Committee meeting; however one project will be reported out at the December meeting. These projects are identified as a part of planning for the upcoming fiscal year annual audit plan and their impact is considered when determining the extent of available resources.
- As noted in the FY 2021 2024 Long-Range Plan Progress report, this project's scope and therefore duration have been reduced to accommodate adjustments in IT and other project timing.
- (3) As noted in the FY 2021 2024 Long-Range Plan Progress report, this project is being deferred for consideration in a later period as the risk profile for the audit area has changed.
- This project was planned to be initiated in FY2022 and completed in FY2023; however, it started later than originally envisioned and during planning the scope of work has been further refined to consider additional relevant components of VRS' IT environment. As such additional resources are needed to complete the planned project.
- (5) This project will be completed using information technology staff augmentation resources approved in the FY2023 budget. This adjustment acknowledges procurement and supervisory responsibilities that will be needed to support this initiative.
- (6) Adjusted to reflect known holidays on the Department of Human Resources 2022 and 2023 calendars for state employees.
- (7) Proposed adjustments in unplanned hours to accommodate modifications to planned projects and other strategic initiatives.

Acronym	s not Described Elsewhere:
APPFA	Association of Public Pension Fund Auditors
C-suite	Chief Executives for VRS, including the Executive Director, Chief Investment Officer and Internal Audit Director
DEC	Director's Executive Committee
IIA	Institute of Internal Auditors
ISACA	Information Systems Audit and Control Association
myVRS	Web-based portal for members developed through the Modernization Program
OSIG	Office of the State Inspector General
Roadmap	Program management tool used by VRS management to monitor critical organizational activities
SPCC	Small Purchase Charge Card
VITA	Virginia Information Technologies Agency
VNAV	myVRS Navigator, administrative system developed through the Modernization Program



Request for Board Action RBA 2022-09-___

Approve FY2023 Annual Audit Plan.

Requested Action

The VRS Board of Trustees approves the proposed FY2023 Annual Audit Plan.

Description/Background

The Audit Director has developed a comprehensive risk assessment process to identify and prioritize the work of the Internal Audit Department in line with organizational and operational risk priorities of the Board of Trustees and VRS management. The process is applied against a universe of potential audit projects within the limitations created by the available audit resources and results in the creation of a Long-Range four-year audit plan.

Annually the Audit Director looks to the guidance provided by the Long-Range plan and develops the Annual Audit plan. FY 2023 is the third year in the Long-Range plan, as a result certain adjustments have been proposed based on the changing risk environment within the organization.

Rationale for Requested Action

The proposed Annual Audit Plan, derived from the approved Long-Range plan is brought forward annually for Board consideration and approval, ensuring the work of the Internal Audit Department remains in alignment with organizational and operational risk priorities.

Authority for Requested Action

Section V.C.6 of the VRS Board of Trustees' Governance Policy delegates the responsibility of developing a comprehensive annual audit plan to the Audit Director and providing that plan to the Audit and Compliance Committee and the Board of Trustees for review and approval.

The above action is approved.		
A. Scott Andrews, Chair	 	
VRS Board of Trustees	Date	

Quarterly Report on Fraud, Waste and Abuse Hotline Cases



Report of Alleged Fraud, Waste and Abuse Hotline Cases

For Complaints Received During the Period May 1, 2022 through July 31, 2022

SUMMARY OF CASES REVIEWED AND CLOSED

During the period May 1, 2022 through July 31, 2022, we received one case of potential Fraud, Waste and Abuse from the Office of the State Inspector General. The case alleged abuse of long-term disability benefits and was unsubstantiated; thus closed.

VRS Control Number	Date Complaint Received	Noted Concern	VRS Personnel Assisting with Allegation	Case Closed	Resolution	Source of the Complaint	Report to OSIG
44	7/2/2022	There was an allegation of abuse of Long-Term Disability Benefits.	Mike Pote	Yes	The case was unsubstantiated.	OSIG	No

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 hand-written 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 "CONFIDENTIAL – STATE FRAUD, WASTE AND ABUSE HOTLINE DOCUMENTS" 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.

Miscellaneous Updates



P.O. Box 2500, Richmond, Virginia 23218-2500

Toll-free: 1-888-VARETIR (827-3847)

Website: www.varetire.org

Date: August 24, 2022

To: Trish Bishop, Director

From: Jennifer Schreck, Internal Audit Director

Joshua Fox, Principal Auditor Investments & Operations

Subject: Review of 2022 Agency Performance Outcomes and Operational Measures

As part of our annual process, Internal Audit has reviewed the status of the 2022 Agency Performance Outcomes (APOs) and Operational Measures (OMs), as set forth by management for the fiscal year ended June 30, 2022. The purpose of our review was to obtain reasonable, but not absolute assurance that the status of such outcomes and measures were fairly represented in management's status reports.

Based upon our review of available documentation, attendance at VRS Board and Committee meetings and discussions with various VRS personnel, nothing came to our attention to cause us to question the representations set forth by management with respect to either the APOs or the OMs. Accordingly, we have no reason to believe that the APOs and OMs were not appropriately represented as satisfied for the fiscal year ended June 30, 2022.

I would like to commend the management team and staff for their accomplishments this past year. Please feel free to share this information with the Administration and Personnel Committee as well as the full Board of Trustees, as you deem appropriate.



P.O. Box 2500, Richmond, Virginia 23218-2500

Toll-free: 1-888-VARETIR (827-3847)

Website: www.varetire.org

Date: September 6, 2022

To: Paula Reid, Director of Human Resources

CC: Trish Bishop, Director

Ron Schmitz, Chief Investment Officer

From: Jennifer Schreck, Internal Audit Director

Joshua Fox, Principal Auditor

Subject: Review of FY2022 Investment Incentive Compensation

Internal Audit has reviewed the proposed Investment Incentive Compensation for the fiscal year ended June 30, 2022. As presented, the Investment Incentive Compensation amount, in aggregate, is \$7,310,690.29, where a qualitative multiplier of 1.0 is used for the Chief Investment Officer. We found this aggregate amount, as well as the proposed individual payment amounts, were accurately computed in accordance with the Investment Professionals' Pay Program, effective June 10, 2021.

Please share this information with the Administration and Personnel Committee as well as the Board of Trustees, as you deem appropriate.



Patricia S. Bishop

Director

P.O. Box 2500, Richmond, VA 23218-2500

Toll-free: 888-827-3847 Website: varetire.org Email: vrs@varetire.org

MEMORANDUM

To: Jennifer P. Schreck, Internal Audit Director

From: Patricia S. Bishop, Director PSB

Date: September 6, 2022

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 June 30, 2022.
- 2. Summary of Other Sponsored Travel Related Expenses Paid During the Quarter of and Fiscal Year-to-Date Through June 30, 2022. 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 June 30, 2022.
- 4. Record of Attendance and Per Diems for the Quarter Ended June 30, 2022.

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

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

PSB/lbk

Attachments

Fiscal Year-To-Date Q4 2022

			Current	t Quarter E	xpenses									Fiscal Ye	ar-To-Date Expe	nses	
		Total Travel			Out-	of-State	e-Tra	avel						Total Travel		Out-o	of-State-Travel
								Γrave									
Traveler	Sponsor Paid	VRS Paid	Total	# Trips	Cost	AM I	BD	CF	DD	MM	SV	TR	Sponsor Paid	VRS Paid	Total	# Trips	Cost
Andrews, Allen	-	\$652.86	\$652.86	-	-	-	-	-	-	-	-	-	-	\$652.86	\$652.86	-	-
Beasley, Michael	-	\$705.24	\$705.24	-	-	-	-	-	-	-	-	-	-	\$3,653.60	\$3,653.60	-	-
Bell II, John	-	\$1,219.15	\$1,219.15	-	-	-	-	-	-	-	-	-	-	\$3,366.87	\$3,366.87	-	-
Deo, Ravindra	-	\$270.38	\$270.38	-	-	-	-	-	-	-	-	-	-	\$270.38	\$270.38	-	-
Disharoon, Michael	-	\$779.22	\$779.22	-	-	-	-	-	-	-	-	-	-	\$2,327.65	\$2,327.65	-	-
Economou, Theodore	-	\$1,214.69	\$1,214.69	-	-	-	-		-	-	-	-	-	\$1,989.45	\$1,989.45	-	-
Garrett, William	-	\$642.81	\$642.81	-	-	-	-	-	-	-	-	-	-	\$2,046.78	\$2,046.78	-	-
Irvin, Shannon	-	\$425.58	\$425.58	-	-	-	-	-	-	-	-	-	-	\$425.58	\$425.58	-	-
Lewis, Wilbert	-	\$782.50	\$782.50	-	-	-	-	-	-	-	-	-	-	\$1,892.36	\$1,892.36	-	-
McWilliams III, O'Kelly	-	\$921.49	\$921.49	-	-	-	-	-	-	-	-	-	-	\$4,286.70	\$4,286.70	-	-
Montgomery, Joseph	-	\$924.30	\$924.30	-	-	-	-	-	-	-	-	-	-	\$1,758.14	\$1,758.14	-	-
Muralidhar, Arun	-	\$302.10	\$302.10	-	-	-	-	-	-	-	-	-	-	\$302.10	\$302.10	-	-
Seward, Troilen	-	\$753.48	\$753.48	-	-	-	-	-	-	-	-	-	-	\$1,425.51	\$1,425.51	-	-
Winter, David	-	\$8.19	\$8.19	-	-	-	-	-	-	-	-	-	-	\$8.19	\$8.19	-	-
Bishop, Patricia	-	\$4,235.44	\$4,235.44	2	\$4,235.44	2	-	-	-	-	-	-	\$935.31	\$5,572.23	\$6,507.54	3	\$5,378.82
Schmitz, Ronald	-	-	-	-	-	-	-	-	-	-	-	-	-	\$367.88	\$367.88	-	-
Adelaar, Stephen	-	\$637.54	\$637.54	1	\$637.54	-	-	-	-	1	-	-	-	\$637.54	\$637.54	1	\$637.54
Alouf, John	\$2,491.52	\$6,191.65	\$8,683.17	8	\$8,683.17	2	-	-	5	5	-	-	\$5,337.38	\$8,066.41	\$13,403.79	12	\$13,403.79
Chang, Warren	\$8,422.55	\$189.90	\$8,612.45	4	\$8,612.45	4	-	-	-	3	-	-	\$10,524.55	\$1,308.49	\$11,833.04	7	\$11,833.04
Coleman, Thomas	\$3,966.53	\$1,914.84	\$5,881.37	3	\$5,881.37	2	-	-	2	3	1	-	\$3,966.53	\$5,999.08	\$9,965.61	7	\$9,965.61
Corsello, Perry	\$2,899.49	\$32.38	\$2,931.87	1	\$2,931.87	1	-	-	-	-	-	-	\$2,899.49	\$32.38	\$2,931.87	1	\$2,931.87
Gentry III, William	\$5,020.08	\$13,465.73	\$18,485.81	6	\$18,485.81	3	-	1	2	2	-	-	\$5,020.08	\$15,013.67	\$20,033.75	7	\$20,033.75
Jones, De'Von	\$5,086.60	\$3,189.64	\$8,276.24	7	\$8,276.24	3	-	1	2	3	-	-	\$5,086.60	\$5,385.42	\$10,472.02	9	\$10,472.02
Koutrakos, Kristina	-	\$4,674.49	\$4,674.49	2	\$4,674.49	-	-	1	1	_	-	-	-	\$4,674.49	\$4,674.49	2	\$4,674.49
Ma, Chung	-	\$3,660.28	\$3,660.28	2	\$3,660.28	-	-	1	1	_	-	-	-	\$3,660.28	\$3,660.28	2	\$3,660.28
Matoua, Katherine	-	\$2,577.46	\$2,577.46	2	\$2,577.46	-	-	1	1	_	-	-	-	\$5,337.27	\$5,337.27	2	\$2,577.46
Mulvin, Thomas	\$3,154.15	\$998.09	\$4,152.24		\$4,152.24	2	-	-	1	2	-	-	\$3,154.15	\$1,156.01	\$4,310.16	4	\$4,310.16

Fiscal Year-To-Date Q4 2022

			_									_					
Muniz, Alex	-	\$4,006.73	\$4,006.73	2	\$4,006.73 -	-	2	<u> </u>		•	-	-	-	\$4,006.73	\$4,006.73	2	\$4,006.73
Murphy, James	-	-	-	-		-	-				-	-	-	\$539.99	\$539.99	1	\$539.99
Noland, Walker	\$1,697.04	\$55.00	\$1,752.04	1	\$1,752.04 1	-	-		- 1	1	-	-	\$1,697.04	\$321.08	\$2,018.12	2	\$2,018.12
Sarki-Hurd, Hajara	-	-	-	-		-	-			-	-	-	-	\$3,046.84	\$3,046.84	1	\$220.64
Schoeller, Jennifer	-	\$355.47	\$355.47	1	\$355.47 -	-	-	. 1	1 -		-	- 1	-	\$355.47	\$355.47	1	\$355.47
Tran, Viet	\$890.00	\$836.60	\$1,726.60	1	\$1,726.60 -	-	-		- 1	1	-	- 1	\$890.00	\$836.60	\$1,726.60	1	\$1,726.60
Turner, Korey	-	\$710.17	\$710.17	1	\$710.17 -	-	-		- 1	1	-	- 1	-	\$710.17	\$710.17	1	\$710.17
Voeks III, Robert	\$10,688.77	\$50.87	\$10,739.64	2	\$10,739.64 2	-	-		- 1	1	-	- 1	\$10,688.77	\$50.87	\$10,739.64	2	\$10,739.64
Woodall, Steven	-	\$598.11	\$598.11	1	\$598.11 -	-	-		- 1	1	-	- 1	-	\$598.11	\$598.11	1	\$598.11
Zizzo, Nicholas	-	\$390.45	\$390.45	1	\$390.45 -	-	-	. 1	1 -		-	- 1	-	\$390.45	\$390.45	1	\$390.45
Total	\$44,316.73	\$58,372.83	\$102,689.56	51	\$93,087.57 22	: -	7	' 1	7 2	4	1	- [\$50,199.90	\$92,473.63	\$142,673.53	70	\$111,184.75

Travel Reasons Legend									
AM	Advisory/Assoc. Me	eting MM	Manager Meeting						
CF	Conference	SV	Site Visit						
DD	Due Diligence	TR	Training						
BD	Board/Committee M	1 eeting							

Virginia Retirement System
Summary of Other Sponsored Travel Related Expenses
(Staff Not Otherwise Includable in Quarterly Reporting)
Fiscal Year-To-Date Through June 2022

	Cu	rrent Quarter	Fisca	al Year-To-Date
	Value		Value	
Name of Traveler	Provided	Sponsor	Provided	Sponsor
				-
	-		-	
	-		-	
	-		-	
	-		-	
	-		-	
	-		-	
	-		-	
	-		-	
			<u> </u>	
Totals			<u> </u>	

Traveler	Travel Start	Travel End	Destination	Sponsor	Purpose	Sponsor Paid	VRS Paid	Total
Andrews, Allen	04/26/2022	04/26/2022	Richmond, VA		Attended a Chief Investment	-	\$131.04	\$131.04
					Officer Search Committee meeting.			
Andrews, Allen	05/25/2022	05/25/2022	Richmond, VA		Attended a Board of Trustees	-	\$128.70	\$128.70
					meeting and annual Board retreat.			
Andrews, Allen	06/14/2022	06/14/2022	Richmond, VA		Attended a Administration and	-	\$131.04	\$131.04
					Personnel Committee meeting.			
Andrews, Allen	06/16/2022	06/16/2022	Richmond, VA		Attended a Audit and Compliance	-	\$131.04	\$131.04
					Committee meeting.			
Andrews, Allen	06/23/2022	06/23/2022	Richmond, VA		Attended a Board of Trustees meeting.	-	\$131.04	\$131.04
Beasley, Michael	04/12/2022	04/13/2022	Richmond, VA		Attend the April 13, 2022 IAC	-	\$705.24	\$705.24
•			,		Meeting in Richmond, Va		·	·
Bell II, John	04/06/2022	04/06/2022	Richmond, VA		Attended the VRS Benefits and	-	\$254.32	\$254.32
·			•		Actuarial Committee meeting.		•	·
Bell II, John	04/19/2022	04/19/2022	Richmond, VA		Attended the Board of Trustees	-	\$229.32	\$229.32
					meeting.			
Bell II, John	05/24/2022	05/25/2022	Richmond, VA		Attended a Board of Trustees	-	\$276.87	\$276.87
					meeting and annual Board retreat.			
Bell II, John	06/02/2022	06/02/2022	Richmond, VA		Attended a Defined Contribution	-	\$229.32	\$229.32
					Plans Advisory Committee meeting.			
Bell II, John	06/23/2022	06/23/2022	Richmond, VA		Attended a Board of Trustees	-	\$229.32	\$229.32
					meeting.			
Deo, Ravindra	05/25/2022	05/25/2022	Richmond, VA		VRS Board Retreat	-	\$119.34	\$119.34
Deo, Ravindra	06/02/2022	06/02/2022	Richmond, VA		DCPAC in person meeting	-	\$151.04	\$151.04
					,			
Disharoon, Michael	03/31/2022	03/31/2022	Richmond, VA		Attended the VRS Chief Investment	-	\$128.70	\$128.70
					Officer Search Committee meeting.			
Disharoon, Michael	04/06/2022	04/06/2022	Richmond, VA		Attended the VRS Benefits and	-	\$128.70	\$128.70
					Actuarial Committee meeting.			
Disharoon, Michael	04/13/2022	04/13/2022	Richmond, VA		Attended a Investment Advisory	-	\$128.70	\$128.70
					Committee meeting and a Chief			

Disharoon, Michael	04/19/2022 04/19/2022 Richmond, VA	Attended the CIO Search Committee, Benefits and Actuarial	-	\$128.70	\$128.70
Disharoon, Michael	05/25/2022 05/25/2022 Richmond, VA	Attended a Board of Trustees meeting and annual Board retreat.	-	\$135.72	\$135.72
Disharoon, Michael	06/23/2022 06/23/2022 Richmond, VA	Attended a Board of Trustees meeting.	-	\$128.70	\$128.70
Economou, Theodore	04/11/2022 04/14/2022 Richmond, VA	Attended the IAC Meeting.	-	\$1,214.69	\$1,214.69
Garrett, William	04/06/2022 04/06/2022 Richmond, VA	Attended the VRS Administration and Personnel and Benefits and	-	\$120.51	\$120.51
Garrett, William	04/13/2022 04/13/2022 Richmond, VA	Attended a Investment Advisory Committee meeting and a Chief	-	\$120.51	\$120.51
Garrett, William	04/19/2022 04/19/2022 Richmond, VA	Attended the CIO Search Committee, Benefits and Actuarial	-	\$120.51	\$120.51
Garrett, William	05/24/2022 05/25/2022 Richmond, VA	Attended a Board of Trustees meeting and annual Board retreat.	-	\$160.77	\$160.77
Garrett, William	06/23/2022 06/23/2022 Richmond, VA		-	\$120.51	\$120.51
Irvin, Shannon	12/02/2021 12/02/2021 Richmond, VA	DCPAC meeting	-	\$137.76	\$137.76
Irvin, Shannon	03/24/2022 03/24/2022 Richmond, VA	DCPAC meeting	-	\$143.91	\$143.91
Irvin, Shannon	06/02/2022 06/02/2022 Richmond, VA	DCPAC in person meeting	-	\$143.91	\$143.91
Lewis, Wilbert	04/12/2022 04/13/2022 Richmond, VA	Travel to Richmond, VA to attend Investment Advisory Committee	-	\$782.50	\$782.50
McWilliams III, O'Kelly	03/29/2022 03/30/2022 Richmond, VA	Attended the March 29 Chief Investment Officer Search and	-	\$430.09	\$430.09
McWilliams III, O'Kelly	04/06/2022 04/06/2022 Richmond, VA	Attended the VRS Administration and Personnel and Benefits and	-	\$122.85	\$122.85
McWilliams III, O'Kelly	04/12/2022 04/12/2022 Richmond, VA	Attended a Chief Investment Officer Search Committee meeting.	-	\$122.85	\$122.85
McWilliams III, O'Kelly	04/13/2022 04/13/2022 Richmond, VA	Attended a Investment Advisory Committee meeting and a Chief	-	\$122.85	\$122.85

McWilliams III, O'Kelly	04/19/2022 04/19/2022 Richmond, VA	Attended the CIO Search Committee, Benefits and Actuarial	-	\$122.85	\$122.85
Montgomery, Joseph	03/29/2022 03/29/2022 Richmond, VA	Attended the Audit and Compliance Committee meeting.	-	\$65.52	\$65.52
Montgomery, Joseph	03/29/2022 03/29/2022 Richmond, VA	Attended the VRS Chief Investment Officer Search Committee meeting.	-	\$65.52	\$65.52
Montgomery, Joseph	03/30/2022 03/30/2022 Richmond, VA	Attended the VRS Chief Investment Officer Search Committee meeting.	-	\$65.52	\$65.52
Montgomery, Joseph	03/31/2022 03/31/2022 Richmond, VA	Attended the VRS Chief Investment Officer Search Committee meeting.	-	\$65.52	\$65.52
Montgomery, Joseph	04/06/2022 04/06/2022 Richmond, VA	Attended the VRS Administration and Personnel and Benefits and	-	\$65.52	\$65.52
Montgomery, Joseph	04/12/2022 04/12/2022 Richmond, VA	Attended a Chief Investment Officer Search Committee meeting.	-	\$65.52	\$65.52
Montgomery, Joseph	04/13/2022 04/13/2022 Richmond, VA	Attended a Chief Investment Officer Search Committee meeting.	-	\$65.52	\$65.52
Montgomery, Joseph	04/19/2022 04/19/2022 Richmond, VA	Attended the CIO Search Committee, Benefits and Actuarial	-	\$65.52	\$65.52
Montgomery, Joseph	04/26/2022 04/26/2022 Richmond, VA	Attended a Chief Investment Officer Search Committee meeting.	-	\$65.52	\$65.52
Montgomery, Joseph	05/02/2022 05/02/2022 Richmond, VA	Attended a Chief Investment Officer Search Committee meeting.	-	\$65.52	\$65.52
Montgomery, Joseph	05/25/2022 05/25/2022 Richmond, VA	Attended a Board of Trustees meeting and annual Board retreat.	-	\$72.54	\$72.54
Montgomery, Joseph	06/14/2022 06/14/2022 Richmond, VA	Attended a Administration and Personnel Committee meeting.	-	\$65.52	\$65.52
Montgomery, Joseph	06/16/2022 06/16/2022 Richmond, VA	Attended a Audit and Compliance Committee meeting.	-	\$65.52	\$65.52
Montgomery, Joseph	06/23/2022 06/23/2022 Richmond, VA	Attended a Board of Trustees meeting.	-	\$65.52	\$65.52
Muralidhar, Arun	03/24/2022 03/24/2022 Richmond, VA	DCPAC meeting	-	\$154.55	\$154.55
Muralidhar, Arun	05/25/2022 05/25/2022 Richmond, VA	VRS Board Retreat	-	\$147.55	\$147.55

Seward, Troilen	03/29/2022 03/29/2022 Richmond, VA	Attended the Audit and Compliance Committee meeting.	-	\$52.65	\$52.65
Seward, Troilen	03/29/2022 03/29/2022 Richmond, VA	Attended the VRS Chief Investment		\$52.65	\$52.65
	• • • • • • • • • • • • • • • • • • •	Officer Search Committee meeting.			Ψ0=.00
Seward, Troilen	03/30/2022 03/30/2022 Richmond, VA	Attended the VRS Chief Investment	- 9	\$52.65	\$52.65
	· · · · · · · · · · · · · · · · · · ·	Officer Search Committee meeting.			¥
Seward, Troilen	03/31/2022 03/31/2022 Richmond, VA	Attended the VRS Chief Investment	- 9	\$52.65	\$52.65
	• • • • • • • • • • • • • • • • • • •	Officer Search Committee meeting.			¥
Seward, Troilen	04/06/2022 04/06/2022 Richmond, VA	Attended the VRS Administration	- 5	52.65	\$52.65
•	,	and Personnel and Benefits and			*
Seward, Troilen	04/12/2022 04/12/2022 Richmond, VA	Attended a Chief Investment	- 5	\$52.65	\$52.65
•	,	Officer Search Committee meeting.			,
Seward, Troilen	04/13/2022 04/13/2022 Richmond, VA	Attended a Investment Advisory	- 5	\$52.65	\$52.65
,	,	Committee meeting and a Chief			·
Seward, Troilen	04/19/2022 04/19/2022 Richmond, VA	Attended the CIO Search	- 5	\$52.65	\$52.65
		Committee, Benefits and Actuarial			
Seward, Troilen	04/26/2022 04/26/2022 Richmond, VA	Attended a Chief Investment	- (\$52.65	\$52.65
		Officer Search Committee meeting.			
Seward, Troilen	05/02/2022 05/02/2022 Richmond, VA	Attended a Chief Investment	- ;	\$52.65	\$52.65
		Officer Search Committee meeting.			
Seward, Troilen	05/25/2022 05/25/2022 Richmond, VA	Attended a Board of Trustees	- 5	\$69.03	\$69.03
		meeting and annual Board retreat.			
Seward, Troilen	06/14/2022 06/14/2022 Richmond, VA	Attended a Administration and	- 5	\$52.65	\$52.65
		Personnel Committee meeting.			
Seward, Troilen	06/16/2022 06/16/2022 Richmond, VA	Attended a Audit and Compliance	- 3	\$52.65	\$52.65
		Committee meeting.			
Seward, Troilen	06/23/2022 06/23/2022 Richmond, VA	Attended a Board of Trustees	-	\$52.65	\$52.65
		meeting.			
Winter, David	05/25/2022 05/25/2022 Richmond, VA	VRS Board Retreat	-	\$8.19	\$8.19
Bishop, Patricia	04/07/2022 04/10/2022 Ft. Myers, FL	Attended the spring National	- \$1,7	755.38	\$1,755.38
		Association of State Retirement			
Bishop, Patricia	06/08/2022 06/10/2022 Atlanta, GA	Attended the annual National	- \$2,4	480.06	\$2,480.06
		Council on Teacher Retirement			

Detail of Travel Related Expenses
Virginia Retirement System
Board/Committee Members and Selected VRS Staff
Paid in Q42022

Adelaar, Stephen	05/11/2022 05/12/2022 New York		Manager meetings with Coatue, JP Morgan, Nitorum, and Select -	-	\$637.54	\$637.54
Alouf, John	03/21/2022 03/23/2022 Coral Gables and Miami, FL		Due DDiligence with TriVest Partners (Coral Gable) and Annual	-	\$1,651.80	\$1,651.80
Alouf, John	04/05/2022 04/05/2022 New York, NY		Travel to New York, NY to meeting with Apollo Investors for Due	-	\$376.06	\$376.06
Alouf, John	04/27/2022 04/29/2022 New York, NY	Centerbridge	Meet with Odyssey then attend Annual Meeting/LPAC with	\$1,203.89	\$296.36	\$1,500.25
Alouf, John	05/03/2022 05/04/2022 London, UK		Travel to London to meet with Bain Europe	-	\$1,460.89	\$1,460.89
Alouf, John	05/17/2022 05/18/2022 Austin, TX		Due Diligence meeting with Vista Partners	-	\$1,090.45	\$1,090.45
Alouf, John	05/23/2022 05/24/2022 Boston, MA		TA Annual Meeting	-	\$985.81	\$985.81
Alouf, John	06/06/2022 06/07/2022 Dallas, TX	NGP; NGP - Natural Gas	Travel to Dallas, TX for NGP Annual Meeting and LPAC /	\$1,287.63	\$71.57	\$1,359.20
Alouf, John	06/21/2022 06/21/2022 Boston, MA		Travel to Boston, MA for Due Diligence on Spectrum X	-	\$258.71	\$258.71
Chang, Warren	03/01/2022 03/02/2022 New York, NY	Prime Property	Advisory Committee Meeting for Prime Property. This is sponsored	\$1,439.32	-	\$1,439.32
Chang, Warren	05/16/2022 05/18/2022 New York, NY	Global Infrastructure	Travel to New York, NY for Annuak Meeting and LPAC with Global	\$2,117.87	\$40.00	\$2,157.87
Chang, Warren	05/23/2022 05/31/2022 Miami FL and Dallas TX	Digital Bridge; Stonepeak	Two LPAC meetings for Digital Bridge (Miami) and Stonepeak	\$3,711.37	\$86.00	\$3,797.37
Chang, Warren	06/06/2022 06/08/2022 New Orleans, LA	Blackrock	Travel to New Orleans to attend Blackrock's AGM and LPAC	\$1,153.99	\$63.90	\$1,217.89
Coleman, Thomas	04/06/2022 04/07/2022 Durham, NC		Travel to Durham, NC for Site Visit and account review with Quad CP.	-	\$502.61	\$502.61
Coleman, Thomas	06/08/2022 06/10/2022 San Francisco CA	, Fortress	Travel to San Francisco, CA t attend Fortress Japan Annual	\$2,740.19	\$41.53	\$2,781.72
Coleman, Thomas	06/12/2022 06/14/2022 Eagle, CO and Chicago, IL	d Taurus; Taurus Mining		\$1,226.34	\$1,370.70	\$2,597.04
Corsello, Perry	05/07/2022 05/11/2022 Dana Point, C		Travel to California for the Ares SOF Annual Meeting and Advisory	\$2,899.49	\$32.38	\$2,931.87

Gentry III, William	04/26/2022 04/29/2022 Chicago IL and Monterey/Carm		GTCR Annual Meeting in Chicago, IL.	\$3,194.76	\$758.26	\$3,953.02
Gentry III, William	05/02/2022 05/03/2022 London, UK		Travel to London for due diligence with Bain Europe	-	\$11,458.87	\$11,458.87
Gentry III, William	05/18/2022 05/19/2022 Miami, FL	ICV Partners	Travel to Miami, FL for Annual Meeting/LPAC for ICV	\$996.96	\$21.70	\$1,018.66
Gentry III, William	05/24/2022 05/25/2022 Boston, MA	Bain Capital	Travel to Boston MA to attaend annual meeting and LPAC for Bain	\$828.36	\$21.70	\$850.06
Gentry III, William	06/14/2022 06/15/2022 New York, NY		Consortium 2022: Value, Information, and Partnerships	-	\$845.04	\$845.04
Gentry III, William	06/21/2022 06/21/2022 Boston, MA		Travel to Boston for Due Diligence on Spectrum X	-	\$360.16	\$360.16
Jones, De'Von	04/05/2022 04/05/2022 New York, NY		Travel to New York, NY to meet with/due diligence with Apollo	-	\$390.24	\$390.24
Jones, De'Von	04/12/2022 04/13/2022 Boston, MA	Great Hill Partners	Travel to Boston, MA to attend Great Hill Partners LPAC meeting	\$1,017.81	\$28.45	\$1,046.26
Jones, De'Von	04/27/2022 04/28/2022 New York, NY	Vista	Travel to New York, NY to attend Vista Annual meeting	\$762.00	\$617.86	\$1,379.86
Jones, De'Von	05/10/2022 05/12/2022 New York, NY	Apollo Global	Travel to NYC for Apollo Global AGM and LPAC meetings /	\$1,978.52	\$43.27	\$2,021.79
Jones, De'Von	05/17/2022 05/18/2022 Austin, TX		Due Diligence meeting with Vista Partners	-	\$1,193.61	\$1,193.61
Jones, De'Von	06/06/2022 06/07/2022 New York, NY	Stone Point; Stone Point	Attend Annual Meeting and LPAC for Stone Point Partners /	\$1,328.27	\$23.27	\$1,351.54
Jones, De'Von	06/14/2022 06/15/2022 New York, NY		Consortium 2022: Value, Information, and Partnerships	-	\$892.94	\$892.94
Koutrakos, Kristina	04/30/2022 05/05/2022 Los Angeles, CA		Attend the 25th Annual Milken Institutional Global Conference	-	\$3,033.95	\$3,033.95
Koutrakos, Kristina	06/06/2022 06/09/2022 New York, NY		Due diligence meetings with investment managers	-	\$1,640.54	\$1,640.54
Ma, Chung	04/30/2022 05/04/2022 Los Angeles, CA		Attend the 25th Annual Milken Institute Global Conference. Trip	-	\$2,251.42	\$2,251.42
Ma, Chung	06/06/2022 06/09/2022 New York, NY		Due diligence meetings with Strategy Managers in New York,	-	\$1,408.86	\$1,408.86

Matoua, Katherine	05/10/2022 05/11/2022 Dallas, TX		Attend the Elkind Economics Emerging Markets conference.	-	\$1,293.18	\$1,293.18
Matoua, Katherine	06/06/2022 06/09/2022 New York, NY		Travel to NYC for investment manager due diligence meetings	-	\$1,284.28	\$1,284.28
Mulvin, Thomas	04/05/2022 04/07/2022 Santa Ana, CA	Penwood	Travel to Santa Ana, CA for Penwood's Annual Meeting and	\$1,917.98	\$14.04	\$1,932.02
Mulvin, Thomas	04/11/2022 04/13/2022 Travel to Wayne, PA		Site visit and due diligence for Carson in Wayne, PA	-	\$984.05	\$984.05
Mulvin, Thomas	05/03/2022 05/05/2022 Miami, FL	Blackrock; Blackstone	Travel to Miami, FL for Advisory Committee meeting with Blackstone	\$1,236.17	-	\$1,236.17
Muniz, Alex	03/27/2022 03/30/2022 Jacksonville, F	L	Attend Q Group Spring Seminar	-	\$2,114.92	\$2,114.92
Muniz, Alex	04/19/2022 04/22/2022 Las Vegas, NV		CQA Spring Conference in Las Vegas, NV	-	\$1,891.81	\$1,891.81
Noland, Walker	05/16/2022 05/18/2022 Miami, FL	PGIM; PGIM Real Estate	Travel to Miami, FL to attend LPAC for PGIM/PRISA II	\$1,697.04	\$55.00	\$1,752.04
Schoeller, Jennifer	06/21/2022 06/21/2022 Boston, MA		Travel to Boston for Due Diligence meeting with investment manager,	-	\$355.47	\$355.47
Tran, Viet	05/16/2022 05/18/2022 Boston, MA	Harbourvest	Travel to Boston, MA to attend Annual Meeting with Harbourvest	\$890.00	\$836.60	\$1,726.60
Turner, Korey	05/11/2022 05/12/2022 New York		Travel to New York for manager meetings with Coatue, JP Morgan,	-	\$710.17	\$710.17
Voeks III, Robert	05/10/2022 05/11/2022 Boston, MA	Summit Partners	Travel to Boston for Summit Partners Annual meeting and LPAC	\$995.88	\$36.83	\$1,032.71
Voeks III, Robert	05/24/2022 05/26/2022 London, UK	Charterhouse	Annual meeting and LPAC for Charterhouse / Sponsored Travel	\$9,692.89	\$14.04	\$9,706.93
Woodall, Steven	05/09/2022 05/10/2022 New York		Travel to New York NY for manager meetings with KKR PIP, HPS and	-	\$598.11	\$598.11
Zizzo, Nicholas	06/21/2022 06/21/2022 Boston, MA		Travel to Boston for due diligence meeting with investment manager,	-	\$390.45	\$390.45
			Total	\$44,316.73	\$58,372.83	\$102,689.56
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VRS BOARD OF TRUSTEES AND COMMITTEES RECORD OF ATTENDANCE & PER DIEMS FOR 2Q2022

								Apr-	22									
		2/8/22	2/15/22	2/22/22	3/1/22	3/8/22	3/15/22	3/22/22	3/24/22	3/29/22	3/29/22	3/30/22	3/31/22	4/6/22	4/6/22	4/12/22	4/13/22	4/13/22
Member	Area	CIO Search	DCPAC	CIO Search	A&C	CIO Search	CIO Search	A&P	B&A	CIO Search	IAC	CIO Search						
A. SCOTT ANDREWS (2) B	OT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
J BRANDON BELL, II	OT	-	-	-	-	-	-	-	-	-	-	-	-	-	Х	-	X	-
JOHN M. BENNETT B	OT	X	Х	-	Х	Х	X	Х	Х	Х	Х	Х	Х	Х	Х	Х	X	Х
MICHAEL P. DISHAROON B	OT	X	Х	X	Х	-	X	Х	-	Х	-	Х	Х	-	Х	Х	X	Х
WILLIAM A. GARRETT B	OT	X	Х	Х	Х	Х	Х	Х	-	X	-	Х	Х	X	Х	-	X	X
SUSAN GOODEN B	OT	-	-	-	-	-	-	-	Х	-	-	-	-	-	-	-	-	-
W. BRETT HAYES B	OT	-	-	-	-	-	-	-	-	-	Х	-	-	-	-	-	X	-
O'KELLY E. MCWILLIAMS, III B	OT	X	Х	Х	Х	Х	Х	Х	Х	X	Х	Х	Х	X	Х	Х	X	Х
JOSEPH W. MONTGOMERY B	OT	X	X	X	X	Х	X	Х	-	Х	Х	Х	Х	Х	Х	Х	-	Х
TROILEN G. SEWARD B	OT	Х	Х	Х	Х	Х	Х	X	-	Х	Х	X	Х	X	Х	Х	Х	Х
RIVINDRA DEO	CPAC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SHANNON T. IRVIN	CPAC	-	-	-	-	-	-	-	Х	-	-	-	-	-	-	-	-	-
RICK LARSON D	CPAC	-	-	-	-	-	-	-	Х	-	-	-	-	-	-	-	-	-
BRENDA O. MADDEN	CPAC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ARUN MURALIDHAR (1)	CPAC	-	-	-	-	-	-	-	Х	-	-	-	-	-	-	-	-	-
EDWARD N. SMITHER D	CPAC	-	-	-	-	-	-	-	Х	-	-	-	-	-	-	-	-	-
DAVID A. WINTER	CPAC	-	-	-	-	-	-	1	Х	-	-	1	-	-	-	-	-	-
DEBORAH ALLEN-HEWITT IA	AC .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-
MICHAEL R. BEASLEY	AC .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-
THEODORE ECONOMOU	AC .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-
THOMAS S.GAYNER	√C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LAWRENCE E KOCHARD	√C	X	X	X	-	Х	X	Х	-	Х	-	Х	Х	-	-	Х	Х	Х
NANCY G. LEAKE	AC .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-
WILBERT BRYAN LEWIS	√C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Х	-
	√C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Х	-
WILLIAM H. WEST	AC .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-
Number Attending		7	7	6	6	6	7	7	8	7	5	7	7	5	7	6	15	7
Total Days per Diem Paid (Control Total)		7	7	6	6	6	7	7	8	7	1	7	7	5	2	6	15	1

⁽¹⁾ Appointed to DCPAC effective 2/10/22

X = Present

⁽²⁾ Appointed by Governor on 4/19/22 & publicly announced on 5/13/2:

VRS BOARD OF TRUSTEES AND COMMITTEES RECORD OF ATTENDANCE & PER DIEMS FOR 2Q2022

			May-22			Jun-22								Per Diem Payments					
		4/19/22	4/19/22	4/19/22	4/26/22	5/2/22	5/25/22	5/25/22	6/2/22	6/14/22	6/16/22	6/23/22	Total Days	Per Diem Rate	Per Diem Rate				Total
Member	Area	CIO Search	B&A	вот	CIO Search	CIO Search	BOT	BOT Retreat	DCPAC	A&P	A&C	BOT	Attended		Apr	May	Jun		
A. SCOTT ANDREWS (2)	BOT	-	-	-	Х	Х	Х	X	-	Х	Х	Х	6	\$ 300.00	\$ -	\$ 600.00	\$ 1,200.00	\$ 1,800.00	
J BRANDON BELL, II	BOT	-	-	X	-	-	X	Х	Х	Х	-	Х	7	300.00	600.00	300.00	1,200.00	2,100.00	
JOHN M. BENNETT	BOT	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	21	300.00	3,900.00	900.00	1,500.00	6,300.00	
MICHAEL P. DISHAROON	BOT	Х	Х	Х	Х	Х	Х	Х	-	-	-	Х	17	300.00	3,600.00	900.00	600.00	5,100.00	
WILLIAM A. GARRETT	BOT	X	Χ	Χ	Х	Х	X	X	-	-	-	Х	17	300.00	3,600.00	900.00	600.00	5,100.00	
SUSAN GOODEN	BOT	-	-	Χ	-	-	X	X	-	-	-	Х	4	300.00	300.00	300.00	600.00	1,200.00	
W. BRETT HAYES	BOT	-	-	Х	-	-	Х	X	-	Х	Х	Х	7	300.00	600.00	300.00	1,200.00	2,100.00	
O'KELLY E. MCWILLIAMS, III	BOT	X	Χ	Χ	-	-	-	-	-	-	-	-	15	300.00	4,200.00	300.00	-	4,500.00	
JOSEPH W. MONTGOMERY	BOT	Х	Х	Χ	Х	Х	Х	X	-	Х	Х	Х	20	300.00	3,900.00	900.00	1,200.00	6,000.00	
TROILEN G. SEWARD	BOT	X	Х	Χ	Х	Х	X	Х	-	Х	Х	Х	20	300.00	3,900.00	900.00	1,200.00	6,000.00	
RIVINDRA DEO	DCPAC	-	-	-	-	-	-	X	Х	-	-	-	2	300.00	-	-	600.00	600.00	
SHANNON T. IRVIN	DCPAC	-	-	-	-	-	-	-	Х	-	-	-	2	300.00	300.00	-	300.00	600.00	
RICK LARSON	DCPAC	-	-	-	-	-	-	-	Х	-	-	-	2	300.00	300.00	-	300.00	600.00	
BRENDA O. MADDEN	DCPAC	-	-	-	-	-	-	-	Х	-	-	-	1	300.00	-	-	300.00	300.00	
ARUN MURALIDHAR (1)	DCPAC	-	-		-	-	-	X	Х	-	-	-	3	300.00	300.00	-	600.00	900.00	
EDWARD N. SMITHER	DCPAC	-	-		-	-	-	-	Х	-	-	-	2	300.00	300.00	-	300.00	600.00	
DAVID A. WINTER	DCPAC	-	-	-	-	-	-	X	Х	-	-	-	3	300.00	300.00	-	600.00	900.00	
DEBORAH ALLEN-HEWITT	IAC	-	-		-	-	-	X	-	-	-	-	2	300.00	300.00	-	300.00	600.00	
MICHAEL R. BEASLEY	IAC	-	-	-	-	-	-	-	-	-	-	-	1	300.00	300.00	-	1	300.00	
THEODORE ECONOMOU	IAC	-	-	•	-	-	-	-	-	-	-	-	1	-	300.00	-	ı	300.00	
THOMAS S.GAYNER	IAC	-	-		-	-	-	-	-	-	-	-	-	300.00	-	-	1	-	
LAWRENCE E KOCHARD	IAC	Χ	-	Χ	Х	Х	X	X	-	-	-	-	15	300.00	3,300.00	900.00	300.00	4,500.00	
NANCY G. LEAKE	IAC	-	-	-	-	-	-	-	-	-	-	-	1	300.00	300.00	-	,	300.00	
WILBERT BRYAN LEWIS	IAC	-	-	-	-	-	-	-	-	-	-	-	1	300.00	300.00	-	-	300.00	
ROD SMYTH	IAC	-	-	-	-	-	-	-	-	-	-	-	1	300.00	300.00	-	-	300.00	
WILLIAM H. WEST	IAC	-	-	-	-	-	-	-	-	-	-	-	1	300.00	300.00	-	-	300.00	
	•		•	•	•		•			•			•		\$ 31,500.00	\$7,200.00	\$ 12,900.00	\$ 51,600.00	

Number Attending 7 6 10 7 7 10 14 9 6 5 9 210

Total Days per Diem Paid (Control Total), 7 0 3 7 7 10 4 9 6 5 9 172 x\$300 **= 51,600.00**

X = Present

⁽¹⁾ Appointed to DCPAC effective 2/10/22

⁽²⁾ Appointed by Governor on 4/19/22 & publicly announced on

Closed Session

Authority

Per its Charter, the Committee is charged with reviewing and making recommendations to the Board regarding the performance of the Audit Director. The Committee typically conducts such a review at its September meeting, supported by the Human Resources Director.

Results

The various Internal Audit Annual Progress Reports presented in today's meeting book highlight the Department's and Audit Director's activities for the year under review.

Executive Pay Plan

The Audit Director falls under the Board approved Executive Pay Plan which provides guidelines regarding the annual salary and bonus amounts provided to the three positions reporting directly to the Board.

The Audit Director's compensation components include a base salary, which falls within the established pay range of the Administrative Pay plan and may be adjusted based on market study findings; supplemental pay, as determined by the Board; performance bonus, and gainsharing.

Review of the Audit Director's Performance

REVIEW OF AUDIT DIRECTOR'S PERFORMANCE

In accordance with the Freedom of Information Act, the Committee will need to go into closed session to discuss the performance of the Audit Director. The necessary wording to convene and certify a closed session is provided below.

Any recommendations agreed to by the Committee during the closed session must be voted upon and approved in open session to be communicated to the Board.

To Convene Closed Meeting

"I move that the Audit and Compliance Committee of the Virginia Retirement System Board of Trustees convene a closed meeting under the Virginia Freedom of Information Act to evaluate the performance of the Audit Director pursuant to the personnel exemption at *Code of Virginia* § 2.2-3711(A)(1)."

[Second needed]
[Roll call vote needed]

Certification after Closed Meeting

"I move the following resolution:

WHEREAS, the Audit and Compliance Committee of the Virginia Retirement System Board of Trustees convened a closed meeting on this date pursuant to an affirmative recorded vote and in accordance with the provisions of The Virginia Freedom of Information Act; and

WHEREAS, *Code of Virginia* § 2.2-3712 requires a certification by this Committee that such closed meeting was conducted in conformity with Virginia law;

NOW, THEREFORE, BE IT RESOLVED, that the Committee certifies that, to the best of each member's knowledge, (i) only public business matters lawfully exempted from open meeting requirements under this chapter were discussed in the closed meeting to which this certification resolution applies, and (ii) only such public business matters as were identified in the motion by which the closed meeting was convened were heard, discussed or considered by the Committee."

[Second needed]
[Roll call vote needed]





Approve a ___% performance bonus for the Audit Director.

Requested Action	
The VRS Board of Trustees approves a% performance bonus for	r the Audit Director.
Description/Background	
The Audit and Compliance Committee reviewed and evaluated the Based on this review and evaluation, the Committee recommends to performance bonus for the Audit Director payable	that the Board approve a%
Rationale for Requested Action	
The Audit and Compliance Committee recommends that the Board for the Audit Director, payable	Committee's review and evaluation Compliance Committee Charter, in w and evaluate the performance of dreport the results and conclusions vides that the Board may review,
Authority for Requested Action	
Code of Virginia § 51.1-124.22(11) authorizes the Board to establish for officers and employees of the Retirement System.	n and administer a compensation plar
The above action is approved.	
A. Scott Andrews, Chair Da	te