Committee Minutes

COMPLIANCE, AUDIT, AND RISK COMMITTEE
Fitzgerald Ballroom – Westin Arlington Gateway Hotel
9:00 a.m.
August 25, 2019

Closed Session

Committee Members: Anna James (chair), Letitia Long, Sharon Brickhouse Martin, Dennis Treacy

Other Board Members: Horacio Valeiras (rector), Greta Harris

VPI & SU Faculty and Staff: Cyril Clarke, Kay Heidbreder, Sharon Kurek, Kim O'Rourke, Dwayne Pinkney, Timothy Sands, Dwight Shelton

Compliance, Audit, and Risk Closed Session

1. **Motion for Closed Session:** Motion to begin closed session.

2. **Update on Fraud, Waste, and Abuse Cases:** The Committee received an update on outstanding fraud, waste, and abuse cases.

3. **Discussion with the Executive Director of Audit, Risk, and Compliance:** The Executive Director discussed audits of specific departments and units where individual employees were identified.

Open Session

Committee Members: Anna James (chair), Sharon Brickhouse Martin, Letitia Long, Dennis Treacy

Other Board Members: Horacio Valeiras (rector), Edward Baine, Shelley Barlow, Greta Harris, Charles C. T. Hill, Melissa Nelson, Mehul Sanghani, Preston White

Representatives to the Board: Tammie Smith, Ryan King, Madelynn Todd

VPI & SU Faculty and Staff: William Babb, Charity Boyette, Lori Buchanan, Cyril Clarke, Al Cooper, John Dooley, Corey Earles, Kari Evans, Ronald Fricker, Bryan Garey, Dee Harris, Kay Heidbreder, Sharon Kurek, Angie Littlejohn, Steve McKnight, April Myers, Kim O'Rourke, Mark Owczarski, Patty Perillo, Charlie Phlegar, Dwayne Pinkney, Timothy Sands, Dwight Shelton, Dawn Taylor, G. Don Taylor, Tracy Vosburgh, Sherwood Wilson

Compliance, Audit, and Risk Open Session

1. **Motion to Reconvene in Open Session:** Motion to begin open session.

2. **Welcome and Introductory Remarks:** The chair of the Compliance, Audit, and Risk Committee provided opening remarks.

3. **Consent Agenda:** The Committee considered and approved the items listed on the Consent Agenda.

    a. **Approval of Minutes of the June 2, 2019 Meeting:** The Committee reviewed and approved the minutes of the June 2, 2019 meeting.

    b. **Update of Responses to Open Internal Audit Comments:** The Committee reviewed the university's update of responses to all previously issued internal audit reports. As of March 31, 2019, the university had four open recommendations. Three audit comments were issued during the fourth quarter of the fiscal year. As of June 30, 2019, the university had addressed two comments, leaving five open recommendations in progress.

    c. **Internal Audit Reports:** The following internal audit reports were issued by the Office of Audit, Risk, and Compliance since the June 2, 2019 meeting. Where applicable, management developed action plans to effectively address the issues in the report with a reasonable implementation timeframe. As noted above, OARC conducts follow-up on management's implementation of agreed upon improvements for previously issued audit recommendations.

        i. HR: Benefits: The audit received a rating of effective. A low-priority recommendation of a less significant nature was noted for management.

        ii. Research: Subrecipient Monitoring: The audit received a rating of improvements are recommended. One observation was noted with respect to compliance with federal and university requirements

surrounding subrecipient monitoring. In addition, two low-priority recommendations of a less significant nature were noted for management.

    iii.   University Bursar: The audit received a rating of effective. Low-priority recommendations of a less significant nature were noted for management.

    iv.   University Registrar: The audit received a rating of improvements are recommended. Audit recommendations were issued where opportunities for further improvements were noted in the areas of Family Educational Rights and Privacy Act (FERPA) training. Additionally, a low-priority recommendation of a less significant nature was noted for management.

    v.   Policy Compliance Review of the College of Agriculture and Life Sciences: The audit received a rating of improvements are recommended. Audit recommendations were issued to management in the areas of wage payroll, leave reporting, expenditures, funds handling, and information technology.

  d. **Status Update on the Audit of the University's Financial Statements:** This report provided the current status on the audit of the university's financial statements for 2018-19.

4. **Internal Audit Reports:** The following internal audit reports were issued by OARC since the June 2, 2019 meeting. Where applicable, management developed action plans to effectively address the issues in the report with a reasonable implementation timeframe. As noted above, OARC conducts follow-up on management's implementation of agreed upon improvements for previously issued audit recommendations.

  a. Athletics: The audit received a rating of improvements are recommended. Audit recommendations were issued to management where opportunities for further improvements were noted in the areas of university drug-testing consent forms, concussion consent forms, equipment room purchasing and inventory, and drug testing reconciliation. A low-priority recommended of a less significant nature was noted for management.

b. Policy Compliance Review of the College of Liberal Arts and Human Sciences: The audit received a rating of significant improvements are needed. Audit recommendations were issued to management where opportunities for further improvement were noted in the areas of: fiscal responsibility, wage payroll, leave reporting, P14 appointments, expenditures, funds handling, university key control, information technology, state vehicle management, and conflict of interest.

5. **OARC Annual Status Report:** The Committee reviewed the Annual Report for OARC. Acceptance of this report documented the Committee's review of the effectiveness of the internal audit function, including staffing resources, financial budget, training, objectivity, and reporting relationships as required by the Committee's Charter. In addition to conducting scheduled audits, policy compliance reviews, and advisory services, the department participated in annual audit activities, fraud investigations, and professional development activities. Eighteen audit projects, or 86 percent of the audits on the fiscal year 2018-19 amended audit plan, were completed. Three audit projects were underway and will carry forward into fiscal year 2019-20.

   In addition to operating the audit function, OARC continued implementation of the Enterprise Risk Management (ERM) program and Institutional Compliance Program (ICP). The identification of risk owners and the development of risk snapshots were conducted under the auspices of the ERM program. A university-wide compliance matrix, including the identification of distributed compliance owners and a mechanism to capture associated risk assessments, was developed as part of the ICP, as well as implementation of the new anonymous hotline.

6. **Audit Plan for Fiscal Year 2019-20:** The Committee approved the annual audit plan for fiscal year 2019-20. OARC conducted the annual risk assessment after reviewing financial and operational data and seeking input from senior management. In addition, a university-wide information technology risk assessment and audit plan were created in accordance with industry standards. For fiscal year 2019-20, more than 30 audit projects were proposed, with approximately 75 percent of available resources committed to the completion of planned projects.

7. **ERM and IPC Program Updates:** The Committee received an update on the ERM and ICP programs. An overview of a tabletop exercise related to the enterprise risk of faculty and staff recruitment and retention was shared with the committee. ICP developments with the university-wide compliance matrix and

associated risk assessments, as well as the new anonymous fraud, waste, and abuse reporting hotline were also shared with the committee. The committee requested updates to the ERM heat map at each meeting and for future discussion of specific ERM topics to occur at corresponding Board committee meetings.

8. **ERM – Faculty and Staff Recruitment and Retention:** Mr. Bryan Garey, Vice President for Human Resources, gave a presentation on key risks to the university associated with recruitment and retention of faculty and staff.

9. **ICP – Athletics Compliance:** Senior Associate Athletic Director for Internal Operations Ms. Angie Littlejohn presented to the Committee on the topic of athletics compliance.

10. **Discussion of Future Topics:** The Committee briefly discussed topics to be covered in future committee meetings.

There being no further business, the meeting adjourned at 11:08 a.m.

Update of Responses to Open Audit Comments

COMPLIANCE, AUDIT, AND RISK COMMITTEE

June 30, 2019

As part of the internal audit process, university management participates in the opening and closing conferences and receives copies of all final audit reports. The audited units are responsible for implementing action plans by the agreed upon implementation dates, and management is responsible for ongoing oversight and monitoring of progress to ensure solutions are implemented without unnecessary delays. Management supports units as necessary when assistance is needed to complete an action plan. As units progress toward completion of an action plan, the Office of Audit, Risk, and Compliance (OARC) performs a follow-up visit within two weeks after the target implementation date. OARC is responsible for conducting independent follow up testing to verify mitigation of the risks identified in the recommendation and formally close the recommendation. As part of management's oversight and monitoring responsibility, this report is provided to update the Compliance, Audit, and Risk Committee on the status of outstanding recommendations. Management reviews and assesses recommendations with university-wide implications and shares the recommendations with responsible administrative departments for process improvements, additions or clarification of university policy, and inclusion in training programs and campus communications. Management continues to emphasize the prompt completion of action plans.

The report includes outstanding recommendations from compliance reviews and audit reports. Consistent with the report presented at the June Board meeting, the report of open recommendations includes three attachments:

- Attachment A summarizes each audit in order of final report date with extended and on-schedule open recommendations.

- Attachment B details all open medium and high priority recommendations for each audit in order of the original target completion date, and with an explanation for those having revised target dates or revised priority levels.

- Attachment C charts performance in implementing recommendations on schedule over the last seven years. The 100 percent on-schedule rate for fiscal year 2019 reflects closing 11 of 11 recommendations by the original target date.

The report presented at the June 2, 2019 meeting covered audit reports reviewed and accepted through March 31, 2019 and included four open medium and high priority recommendations. Activity for the quarter ended June 30, 2019 resulted in the following:

Open recommendations as of March 31, 2019	4
Add: medium and high priority recommendations accepted June 2, 2019	3
Subtract: recommendations addressed since March 31, 2019	2
Remaining open recommendations as of June 30, 2019	5

While this report is prepared as of the end of the quarter, management continues to receive updates from OARC regarding auditee progress on action plans. Through June 30, 2019, OARC has not closed any of the five outstanding medium and high priority recommendations. The remaining open recommendations are progressing as expected and are on track to meet their respective target due dates. Management continues to work conjointly with all units and provides assistance as needed to ensure action plans are completed timely.

ATTACHMENT A

Open Recommendations by Priority Level

COMPLIANCE, AUDIT, AND RISK COMMITTEE

June 30, 2019

Report Date	Audit Name	Audit Number	ISSUED	COMPLETED	OPEN Extended High	Extended Medium	On-schedule High	On-schedule Medium	Total Open
14-Mar-19	University Building Official	19-1434	2					2	2
15-May-19	Hume Center	19-1429	1				1		1
15-May-19	Industrial Control Systems	19-1438	2					2	2
Totals:			**5**	**0**	**0**	**0**	**1**	**4**	**5**

Presentation Date: August 25, 2019

Open Audit Recommendations

COMPLIANCE, AUDIT, AND RISK COMMITTEE

June 30, 2019

Report Date	Item	Audit Number	Audit Name	Recommendation Name	Priority		Target Date		Follow Up Status	Status of Recommendations with Revised Priority / Target Dates
					Original	Revised	Original	Revised		
14-Mar-19	1	19-1434	University Building Official	Entry and Approval of Time Spent on Capital Projects	Medium		10-Sep-19		1	
15-May-19	2	19-1429	Hume Center	Computer Security	High		29-Nov-19		2	
14-Mar-19	3	19-1434	University Building Official	Monitoring Permit Expiration	Medium		31-Dec-19		2	
15-May-19	4	19-1438	Industrial Control Systems	Documentation of Policies and Procedures	Medium		31-Dec-19		2	
15-May-19	5	19-1438	Industrial Control Systems	Access Security Controls	Medium		31-Dec-19		2	

Follow Up Status

1   As of June 30, 2019, management confirmed during follow up discussions with the Office of Audit, Risk, and Compliance (OARC) that actions are occurring and the target date will be met. OARC will conduct testing after the due date to confirm that the Management Action Plan is implemented in accordance with the recommendations.

2   Target date is beyond current calendar quarter. Management has follow-up discussions with the auditor to monitor progress, to assist with actions that may be needed to meet target dates, and to assess the feasibility of the target date.

For Open Detail Report: "current calendar quarter" is used to refer to the current working quarter instead of the quarter being reported on.

Presentation Date: August 25, 2019

Management Performance and Trends Regarding Office of Audit, Risk, and Compliance Recommendations

COMPLIANCE, AUDIT, AND RISK COMMITTEE

June 30, 2019

Seven Year Trend of Recommendations Closed - On Schedule

Presentation Date: August 25, 2019
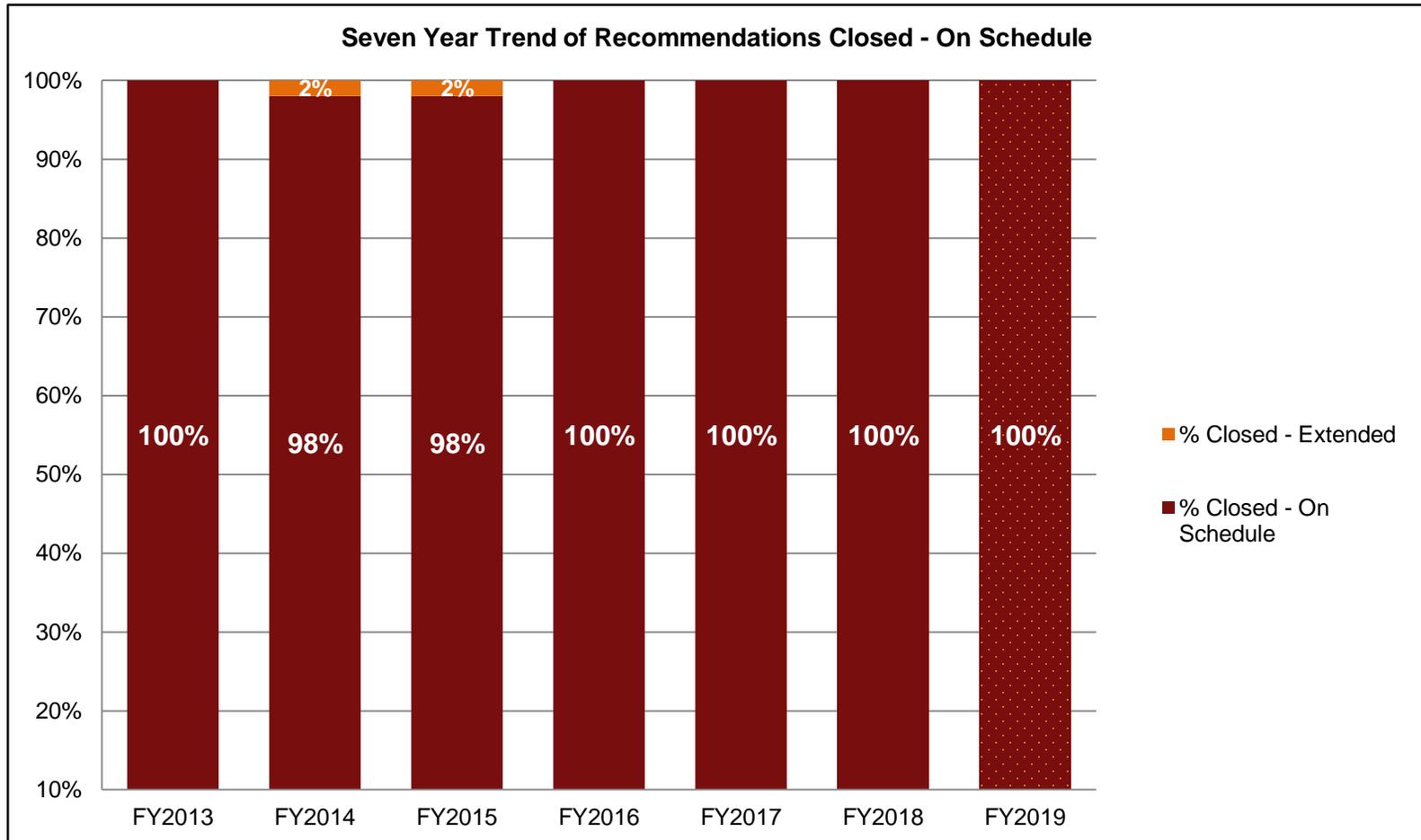
Internal Audit Reports

COMPLIANCE, AUDIT, AND RISK COMMITTEE

August 25, 2019

Background

This report provides a summary of audit ratings issued this period and the full rating system definitions. The following reviews have been completed during this reporting period. The Office of Audit, Risk, and Compliance has made a concerted effort to ensure progress on the annual audit plan.

Consent Agenda Reports	Rating
Human Resources: Benefits	Effective
Research: Subrecipient Monitoring	Improvements are Recommended
University Bursar	Effective
University Registrar	Improvements are Recommended
College of Agriculture and Life Sciences Policy Compliance Review	Improvements are Recommended
Reports for Discussion	**Rating**
Athletics	Improvements are Recommended
College of Liberal Arts and Human Sciences Policy Compliance Review	Significant Improvements are Needed

Summary of Audit Ratings

The Office of Audit, Risk, and Compliance's rating system has four tiers from which to assess the controls designed by management to reduce exposures to risk in the area being audited. The auditor can use professional judgment in constructing the exact

wording of the assessment in order to capture varying degrees of deficiency or significance.

Definitions of each assessment option

Effective – The audit identified opportunities for improvement in the internal control structure, but business risks are adequately controlled in most cases.

Improvements are Recommended – The audit identified occasional or isolated business risks that were not adequately or consistently controlled.

Significant or Immediate Improvements are Needed – The audit identified several control weaknesses that have caused, or are likely to cause, material errors, omissions, or irregularities to go undetected. The weaknesses are of such magnitude that senior management should undertake immediate corrective actions to mitigate the associated business risk and possible damages to the organization.

Unreliable – The audit identified numerous significant business risks for which management has not designed or consistently applied controls prior to the audit. Persistent and pervasive control weaknesses have caused or could cause significant errors, omissions, or irregularities to go undetected. The weaknesses are of such magnitude that senior management must undertake immediate corrective actions to bring the situation under control and avoid (additional) damages to the organization.

RECOMMENDATION:

That the internal audit reports listed above be accepted by the Compliance, Audit, and Risk Committee.

August 25, 2019

ANNUAL REPORT

FOR THE FISCAL YEAR ENDED JUNE 30, 2019

Table of Contents

Mission Statement – Scope of Work

The Office of Audit, Risk, and Compliance (OARC) performs independent internal audits, plans and oversees the university risk management process, and oversees the institutional compliance program. OARC's mission is to enhance and protect organizational value by providing risk-based and objective assurance, advice, and insight as follows:

1. Audit: Provide independent, objective assurance and advisory activity designed to add value and improve university operations. Audits help the university accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.

2. Enterprise Risk Management (ERM): Provide oversight of the enterprise risk management program by creating and maintaining the framework to effectively identify, assess, and manage risk.

3. Compliance: Provide oversight of the institutional compliance program (ICP) and the distributed processes that support compliance across the university.

Internal audit coverage encompasses reviews of all university operations and activities to appraise:

- the accuracy, reliability, and timeliness of significant financial, managerial, and operational information and the adequacy of the internal controls employed over the compilation and reporting of such information;
- compliance with policies, procedures, standards, laws, and regulations;
- risk identification and management;
- measures taken to safeguard assets, including tests of existence and ownership;
- the adequacy, propriety, and cost-effectiveness of accounting, financial, and other controls throughout the university, as well as compliance therewith;
- measures taken to foster continuous improvement in control processes;
- whether university resources are being acquired, managed, and protected in an economical, efficient, and effective manner; and
- the achievement of programs, plans, and objectives.

OARC reports functionally to the Compliance, Audit, and Risk (CAR) Committee of the Board of Visitors. For day-to-day operations, the Executive Director reports administratively to the President.

Executive Summary – State of Control Environment

The university's internal audit function within OARC continues to be a significant element of the university's overall control structure and a positive influence on the control environment. During fiscal year 2018-19, OARC examined and tested the operations and systems of internal control within a number of university departments to assist management and the Board of Visitors in the discharge of their fiduciary responsibilities.

As a result of the audit, advisory, and investigative work performed during fiscal year 2018-19, no deficiencies representing material control weaknesses were identified; however, a number of areas requiring improvement were noted. The scope of audit work was not limited in any way by management or others, nor were there any instances where OARC considered its independence or objectivity to have been impaired. Management and others were found to be conscientious, cognizant, and accepting of their responsibility for internal control, as well as open, cooperative, and supportive of audit efforts.

Management has generally accepted audit findings and responded by developing action plans to address the concerns included in report recommendations. These statements are made with the understanding that no system of internal control provides absolute assurance that controls are functioning effectively. These statements are also not meant to imply that fraud and other irregularities do not exist or, if they do exist, are certain to be detected. Decisions as to the level of risk that is tolerable and should be accepted by the university are the responsibility of management. That said, based on the audit, advisory, and investigative work performed during fiscal year 2018-19, OARC did not identify any areas where management decided to accept a level of risk that we believed to be unacceptable.

Audit Program

Audits were performed in accordance with the fiscal year 2018-19 annual audit plan at a level consistent with the resources of OARC. Eighteen audit projects on the audit plan were completed, including two carry forwards from the previous year.

The annual audit plan included 22 proposed projects, reflective of the level of OARC staffing anticipated for the fiscal year. Due to a combination of filling staffing vacancies and dedicated effort by the audit team, OARC deferred only three of those projects to next year's audit plan. Risk-based audits of the School of Public and International Affairs and Research: Grants Management, as well as a policy compliance review of the Vice President for Student Affairs, are underway and will carry forward into fiscal year 2019-20.

For fiscal year 2018-19, OARC completed 86 percent of its amended audit plan as depicted in Exhibit 1 below:

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Exhibit 1
FY 2018-19 Completion of Audit Plan

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Audits	
Total # of **Audits** Planned	22
Total # of Supplemental **Audits**	0
Total # of Carry Forwards	2
Total # of Planned **Audits** Deferred and/or Canceled	3
Total Audits in Plan as Amended	**21**
Total **Audits** Completed	18
Audits - Percentage Complete	86%
Audits - Percentage Complete or Underway	100%
Note: Includes Policy Compliance Reviews and Advisory Services	

Exhibit 2 displays the distribution of direct audit hours (65%) by category. Indirect hours, primarily for administration, computer/network support, training, and compensated absences (35%) are not included in this chart. Additional effort was spent on fraud, waste, and abuse investigations due to the focus on closing outstanding cases, of which 13 were from prior fiscal years. The university ERM and ICP programs were separated out of Audit Support this year as their own category for better tracking of effort. Audit support is primarily comprised of the data analysis program, the annual audit planning process, and periodic management meetings.

Exhibit 2
FY 2018-19 Distribution of Direct Audit Hours
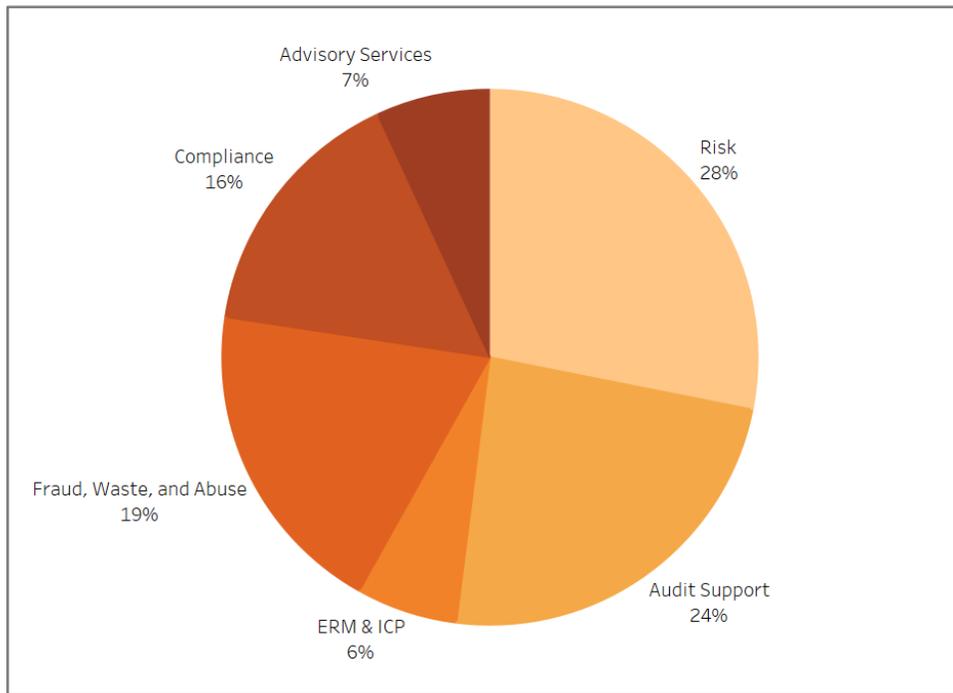
Exhibit 3 below displays the status of the fiscal year 2018-19 audit plan as amended. As noted previously, only three projects remain in progress and will be carried forward to the fiscal year 2019-20 audit plan.

Exhibit 3
FY 2018-19 Audit Plan Status

Audit Project	Risk Ranking	BOV Mtg
Risk-Based Audit		
Americans with Disabilities Act (ADA) Compliance	High	*Deferred*
Athletics*	High	Aug-19
Endowed Professorship Utilization	Medium	Nov-18
Human Resources: Benefits*	High	Aug-19
Hume Center	High	Jun-19
IT: Controlled Unclassified Information (CUI) and Secure Research Environment (SRE)	High	Jun-19
IT: Industrial Control Systems	Medium	Jun-19
IT: Third-Party Access to University Data	High	Mar-19
Maintenance Reserve	Medium	Mar-19
Office of the University Bursar	High	Aug-19
Research: Grant Management*	High	*Carry-Forward*

Audit Project	Risk Ranking	BOV Mtg
Research: Subrecipient Monitoring*	High	Aug-19
School of Public and International Affairs	Medium	*Carry-Forward*
Student Medical Insurance Reimbursement Program	Medium	Jun-19
Title IX Compliance	High	*Deferred*
University Building Official	Medium	Mar-19
University Registrar	High	Aug-19
University Scholarships and Financial Aid*	High	*Deferred*
Policy Compliance Reviews		
College of Agriculture and Life Sciences Policy Compliance Review		Aug-19
College of Liberal Arts and Human Sciences Policy Compliance Review		Aug-19
Vice President and Dean for Graduate Education Policy Compliance Review		Mar-19
Vice President for Student Affairs		*Carry-Forward*
* Annual Audit on Different Components		

Additionally, OARC responded to management's requests for advisory services and consultative guidance including the following areas:

- School of Plant and Environmental Sciences (SPES) – SPES, which resides within the College of Agriculture and Life Sciences, was created through the consolidation of three long-standing university departments: Crop and Soil Environmental Sciences; Horticulture; and Plant Pathology, Physiology, and Weed Science. SPES officially launched on July 1, 2018. The objective of this advisory review was to assess the initial control structure for the operations of the new school. OARC evaluated SPES business policies and procedures, and reviewed its organizational structure to assist in the continuing development of the school.

- Youth Protection Activities – University policy 4815, *Minors on Campus or Participating in University-Related Programs*, states, "[The university] is committed to the safety and welfare of its students, faculty, staff and visitors through the establishment of reasonable practices that support a safe and secure environment…as well as to promoting safety through policies and programs." The objective of this advisory review was to assess the university's policies, practices, and procedures in supporting a safe and secure environment when interacting with minors (i.e., persons under the age of 18). The review involved extensive surveying and a benchmarking analysis of youth protection policies from peer universities.

Management Corrective Actions (MCAs)

OARC conducts follow-up on management's implementation of agreed upon improvements for previously issued audit recommendations. Each audit recommendation – and its associated MCA – is given a rating of high, medium, or low priority by the auditors. This judgment is made in a local context, and items identified as high do

not necessarily convey material deficiencies or risks beyond the operating environment in which they were found.   A primary objective of this classification is to drive a greater sense of urgency in completing the corrective action and completion of audit follow-up.   The CAR Committee receives the higher priority recommendations and associated MCAs. However, OARC and management closely monitor all outstanding recommendations to ensure they are adequately addressed by the responsibleparties.

Of the 49 MCAs generated during audits issued in fiscal year 2018-19, OARC categorized two as high priority (4%). High-priority MCAs would include those that are systemic or have a broad impact; have contributed to a significant investigation finding; are reportable conditions under professional literature; create health or safety concerns; involve senior officials; create exposures to fines, penalties, or refunds; or are otherwise judged as significant control issues. Open MCAs at fiscal year-end have been outstanding an average of 310 days and are on track for completion. Audits for fiscal year 2018-19 resulted in recommendations with ratings of high, medium, or low MCAs asfollows:

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Exhibit 4
Inventory of MCAs

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Beginning # of MCAs	25
MCAs added	49
MCAs closed	<u>40</u>
Current open inventory of MCAs	34

Note: The open inventory above includes 11 open MCAs from the reports presented to the CAR Committee at the August 25, 2019 meeting.   In addition, 18 of the 34 open MCAs are categorized as either low-priority recommendations, recommendations resulting from advisory service reviews, or observations with university-wide impact or for central administration identified during audits that are excluded from status reports of previously issued recommendations shared with the CAR Committee.

Cost Containment and Revenue Enhancement Recommendations

OARC emphasized the identification of cost containment and revenue enhancement strategies in the performance of audit activities. OARC issued the following recommendations to management to assist with cost containment or revenue enhancement strategies:

- IT: Employee Access Life Cycle – A university-wide system for managing access to university applications and data was not fully implemented. Streamlining processes around the employee system access life cycle has the potential to increase operational efficiency by reducing employee downtime and to better secure university data. Timely provisioning of access requests will help support employee productivity. Prompt removal of access when no longer needed will help prevent unauthorized or inappropriate access to sensitive data.

- Endowed Professorship Utilization – There was no requirement in place to track the utilization of endowed funds nor was there a requirement to report on endowed professorship fund-utilization plans. While the Faculty Handbook addressed certain aspects of endowed professorships, it did not address any utilization requirements. Analysis of VTF reports indicated that the university-wide median utilization of funds for fiscal years 2013-14 through 2017-18 was approximately 30%, including funds that were not used but were instead withdrawn from available funds and returned to principal.

Recurring Audit Recommendations

The same or similar recommendations noted below were identified in multiple audit reports issued in fiscal year 2018-19. The data in Exhibit 5 will be shared with leadership in the appropriate administrative departments so that they can establish education and/or monitoring programs that will reduce the recurrence of these issues in future years.

Exhibit 5
Recurring Audit Recommendations

Recommendations	Occurrences	Audits
Logical and Physical Access Controls	6	College of Liberal Arts and Human Sciences (2) College of Agriculture and Life Sciences Hume Center IT: Industrial Control Systems University Registrar
Expenditures	4	Athletics College of Liberal Arts and Human Sciences College of Agriculture and Life Sciences Vice President and Dean for Graduate Education
Funds Handling	3	College of Liberal Arts and Human Sciences College of Agriculture and Life Sciences Vice President and Dean for Graduate Education

Results of Surveys for Evaluating OARC Services

Each audit and compliance review management contact is emailed a link to an online survey requesting their evaluation of the quality of audit services provided by OARC. Feedback from the surveys is used to enhance the overall quality of university audits. The survey responses are grouped into three categories focused on the following areas:

Audit Team   Demonstrated technical proficiency, approached audit with objective and professional manner, and conclusions and opinions were logical;

Audit Performance   Discussed the preliminary audit objectives, scope, and timing of the audit, management concerns and suggestions were solicited and considered in the audit, and disruption of daily activities was minimized as much as possible during the audit;

Audit Report   Written clearly and contained adequate explanations for the observations, and recommendations improved or added value to the department's operation.

Exhibit 6
Results of FY 2018-19 Surveys for Evaluating OARC Services
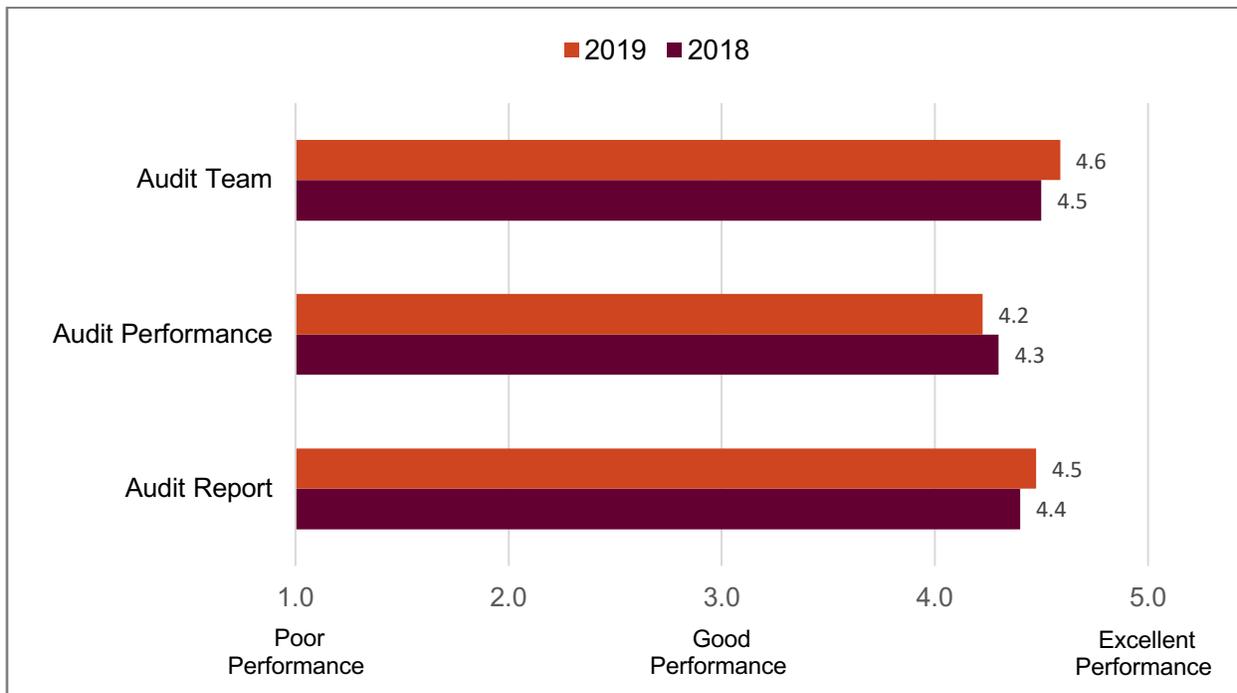
Overall, customer ratings were highly favorable as results ranged from good to excellent. Attaining a cumulative average score of 4.5 on a 5-point scale exceeded OARC's goal of a 4.0 rating on survey feedback. Comments provided by clients showed appreciation of the audit process and the courtesy, professionalism, flexibility, and thoroughness demonstrated by the audit team. One respondent commented that a better understanding of the control environment should have been obtained during the planning phase of the engagement. Another noted that enhanced communication for engagements could be improved to ensure adequate time for response to issues. Additional respondents expressed that auditors worked diligently, asked the appropriate questions along the way, and took the feedback provided seriously to draw reasonable conclusions based on evidence collected.

Fraud, Waste, and Abuse

OARC conducts reviews of all state hotline and internal complaints alleging fraud, waste, and abuse. During fiscal year 2018-19, OARC initiated 20 cases, including 11 state hotline and nine internal complaints. Sixteen cases from fiscal year 2018-19 were closed, along with 13 cases from prior fiscal years. For the 29 cases completed, three of 17 (18%) state hotline cases were substantiated, and 10 of 12 (83%) internally reported cases were substantiated. Since 2009-10, approximately 56 percent of internally reported allegations have been substantiated, and 20 percent of state hotline cases have historically been substantiated, for a combined weighted average of 38 percent.

OARC makes recommendations of improvements related to business practices, communication, and management that improve the overall operating environment of the university. Over the previous 10 years, OARC made recommendations in 51 percent of fraud, waste, and abuse cases.

Since fiscal year 2009-10, approximately 75 percent of the allegations investigated by OARC have fallen within five general categories: improper use of university resources; leave or time abuse; abuse of authority; misfeasance and waste; and conflict of interest.

Exhibit 7 displays the number of fraud, waste, and abuse reviews performed for hotline and internal complaints for fiscal years 2009-10 through 2018-19, the total number of cases, the number of substantiated cases, and the number of cases with recommendations for management.

Exhibit 7
FWA Historical Case Volume Summary by Fiscal Year
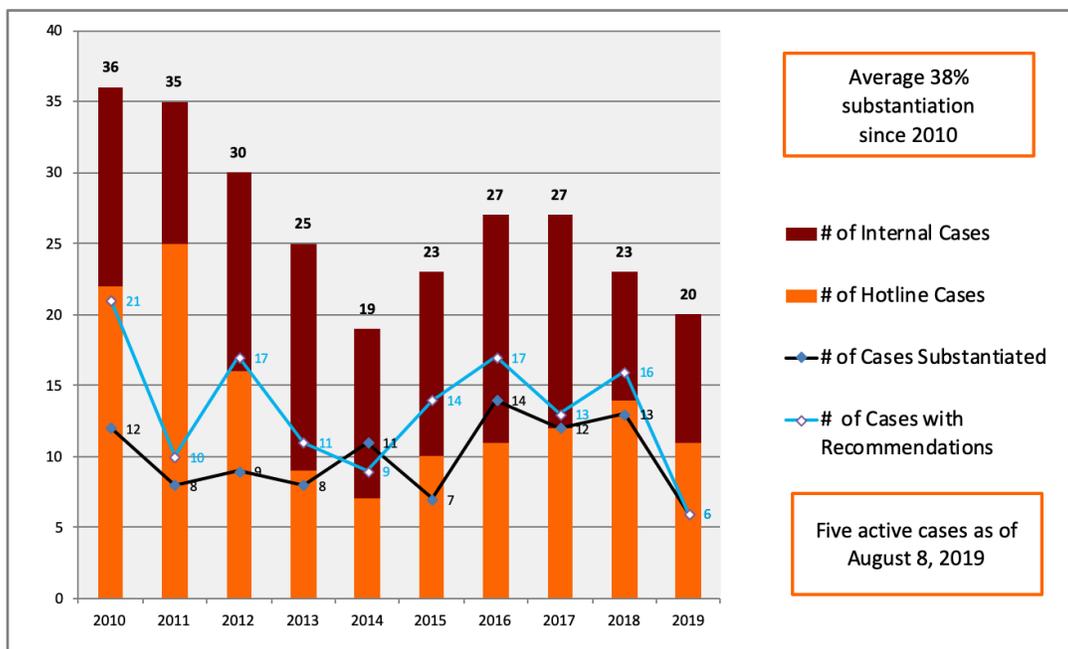
Quality Assurance and Improvement Program

A comprehensive Quality Assurance and Improvement Program of the university's internal audit function is maintained in accordance with requirements set forth by the Institute of Internal Auditors' (IIA) International Standards for the Professional Practice of Internal Auditing (Standards). This program includes ongoing monitoring, periodic self-assessments, and an independent external assessment that should be conducted at a minimum of every five years.

An external assessment was last completed during fiscal year 2015-16, when the internal audit function received the highest rating possible of "generally conforms." The next independent external assessment will be due in 2021. A formalized self-assessment is currently underway.

Enterprise Risk Management Program

OARC has coordinated Virginia Tech's Enterprise Risk Management (ERM) Program since its inception at the request of the Board of Visitors' CAR Committee in 2017. The ERM process, a key tool in setting strategic goals across the enterprise, is designed to identify potential events that may affect the entity, manage those risks within the entity's risk tolerance, and support the achievement of entity mission and objectives.

The ERM program strengthens the university's ability to achieve its mission and strategic objectives through effective management of key risks and seizure of opportunities related to the achievement of strategic objectives. In this context, risk encompasses both negative events ("downside risk") and opportunities ("upside risk"). Benefits of an effective ERM program include:

- holistic view of the most critical risks to achievement of entity's mission and objectives;
- risk-aware culture, including the management of risks to an appropriate level of risk tolerance;
- improved focus and perspective on both internal and external risks and opportunities, including emerging risks and value drivers;
- enhanced decision making and alignment with strategic goals; and
- improved efficiency and optimized allocation of resources through risk prioritization.

ERM is a collaborative effort at various levels of the organization as described below.

ERM Committee
The President's Executive Staff+ serves as the ERM Committee. Executive Staff help determine the university's risk appetite, contribute to the assessment of risks along with risk mitigation plans, and provide guidance on how to report key risks to the CAR Committee. Executive Staff incorporate information from the ERM program in strategic decision making and effective allocation of resources.

Risk Advisory Committee
The President's Leadership Team (PLT) serves as the Risk Advisory Committee. This group reviews the risks identified individually by senior leaders, further prioritizing and assessing the risks to identify the university's top strategic risks. Throughout the year, members seek to identify risks in their areas of operation and bring them to the PLT for evaluation in light of higher education or industry trends and national regulatory indicators. Also, this group ensures appropriate ownership and accountability of risks, including development of risk mitigation plans.

Office of Audit, Risk, and Compliance
OARC maintains the ERM framework and facilitates discussions between senior leaders and their management teams to identify, categorize, and assess risks. OARC promote communication and collaboration among risk management activities, including training risk owners on the ERM framework as necessary. OARC assists the

above committees in their duties and provide senior leaders with key information to make risk-informed decisions.

During fiscal year 2018-19, OARC built upon the initial identification of the enterprise risk landscape and assignment of risk owners during the previous year, focusing on development of risk snapshots with related action plans, as well as raising senior leadership awareness of particular risk areas. Through consultation with OARC, risk owners developed "snapshots" of their risks, capturing the sub-risks associated with it and identifying both process owner(s) and stakeholders for each. Owners evaluated existing mitigation efforts and created action plans to address the residual risk, assigning each a responsible party and due date. OARC staff is reviewing the submissions and will provide feedback to owners as appropriate. In addition, OARC facilitated two tabletop exercises using a case-based approach to focus on a specific enterprise risk area and foster cross-disciplinary examination of root causes and mitigation strategies, on the financial impact of an economic recession and the challenges of recruiting and retaining staff to meet the university's growth and diversity goals in the coming years. After each exercise, OARC captured the factors and opportunities associated with each risk area and worked with the risk owners to develop actionable plans to address various elements.

Through the quarterly meetings of the CAR Committee, OARC highlighted both the growth of the ERM program and specific areas of risk for the university. Subject-matter experts in enterprise risks associated with the socio-political environment, tuition dependency, and research presented directly to the committee. In addition, OARC facilitated a tabletop exercise with the President's Leadership Team on the topic of effective staff recruitment and retention.

Enterprise Risk Landscape

ACADEMIC	CAMPUS CULTURE AND CLIMATE	EXTERNAL ENVIRONMENT	FINANCIAL	RESEARCH	UNIVERSITY OPERATIONS
Faculty & Staff Recruitment & Retention	Leadership & Governance	Legal & Regulatory	Federal & State Funds	Research Compliance	Expanding Physical Footprint
Global Engagement	Athletics	Socio-Political Environment	Tuition Dependency	Competitive Growth	Safety & Security
Evolving Pedagogy & Delivery	Title IX	Partners	Resource Management	Integrity & Conflicts of Interest	IT Security & Operations
Enrollment Management	Diversity & Inclusion	Alumni & Friends	Advancement	Restricted Research	Infrastructure & Facilities
Academic Quality	Student Experience	Accreditation	Endowment Income	Intellectual Property	Disaster Recovery & Business Continuity

REPUTATIONAL / COMPLIANCE

Institutional Compliance Program

Virginia Tech is committed to integrity, a culture of compliance, and the promotion of the highest ethical standards for all employees. In 2017, OARC was charged with forming an Institutional Compliance Program (ICP) to promote and support a working environment that reflects the university's commitment to compliance with all relevant legal and regulatory requirements. The ICP is a resource for Virginia Tech in proactively meeting its compliance obligations and managing compliance risks.

The primary focus of compliance with applicable laws and regulations is in the academic and administrative units throughout the university, where the authority for policy development and the responsibility for implementation of compliance reside. Accordingly, the compliance

8 ELEMENTS OF AN EFFECTIVE COMPLIANCE PROGRAM

| High-level personnel exercising oversight | Written policies and procedures | Training and Education | Lines of Communication |
| Well publicized disciplinary guidelines | Internal compliance monitoring | Response to detected offenses | Perform periodic compliance risk assessments |

framework includes members of management with responsibility for key compliance areas and other appropriate officials. During fiscal year 2018-19, OARC built upon this framework to leverage existing structures (including audit, ERM, hotline administration, legal counsel, and the policy office) in support of compliance efforts.

Institutional Compliance Function (OARC)
OARC does not own any discrete compliance subject matter area. Instead, it assists in promoting a culture of compliance and ethical behavior by:

- maintaining a compliance matrix of applicable regulations and authoritative guidance with responsible parties;
- implementing the compliance risk assessment process as a component of the ERM program;
- facilitating the university compliance and ethics hotline;
- assisting the compliance committees in their various duties; and
- providing assistance in responding to external reviews and investigations.

Executive Compliance Committee (ECC)
The charge of the ECC is to promote excellence in our compliance efforts to assure compliance with our legal, regulatory, and ethical responsibilities. The ECC is responsible for approving the university's compliance priorities and has oversight responsibility for the university's compliance efforts, including fulfillment of these priorities.

Compliance Advisory Committee (CAC)

The charge of the CAC is to assist the ECC in promoting a culture and understanding of and adherence to applicable legal and regulatory requirements. The CAC provides compliance leadership in the university's academic and administrative units and ensure effective communication and collaboration among those responsible for compliance by:

- fostering communication across campus on issues related to compliance;
- maintaining a university compliance matrix;
- reviewing the results of the compliance risk assessment and proposing university priorities;
- ensuring the development and implementation of corrective action plans as developed by responsible parties and approved by senior management; and
- reporting results to the ECC, including progress on plans and risks being assumed.
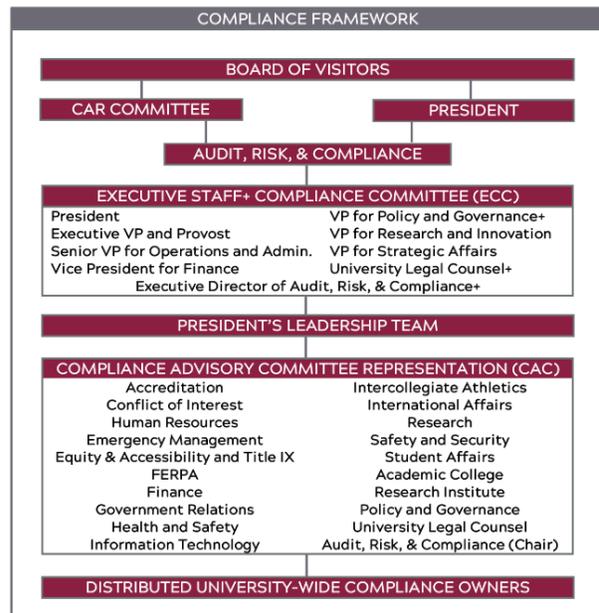
Much of the program's focus during fiscal year 2018-19 was on the creation and refinement of a comprehensive matrix of regulations with which the university must comply. Building on the results of an internal audit project, OARC coordinated a multi-phase approach to designing a tracking tool that accurately captured the hundreds of wide-ranging regulations applicable to the execution of Virginia Tech's mission. The initial list obtained through interviews with senior leadership was first reviewed through a series of CAC meetings and working group sessions. Using a purpose-built SharePoint site, the matrix was then released to the more than 75 university-wide compliance owners for more in-depth evaluation of each regulation, including its applicability to Virginia Tech and identification of key stakeholders.

The CAC members, in consultation with the university's senior leadership, gave significant consideration both to building a robust tool and its potential future application, while focusing on maintaining a streamlined user interface to maximize utility while minimizing burden on compliance owners. During the first quarter of fiscal year 2019-20, the owners will assess their areas of responsibility to determine the effectiveness of mitigation and control measures and identify the level of residual risk to the university.

In a broader effort to highlight the critical importance of compliance to the institution, OARC sponsored presentations by subject matter experts at the quarterly meetings of the Compliance, Audit, and Risk Committee. Topics presented during the fiscal year included accreditation and research compliance.

Staffing and Resources

Current OARC staffing includes the Executive Director of Audit, Risk, and Compliance; an Audit Manager for Special Projects; a Chief of Staff; eight audit professionals; a part-time wage Senior Fraud Specialist; an Office Manager; a graduate assistant; and two undergraduate student wage employees. The office is currently recruiting to fill the vacant Director of Internal Audit position. Exhibit 8 shows OARC's organizational chart as of July 2019.

Exhibit 8
OARC Organizational Chart
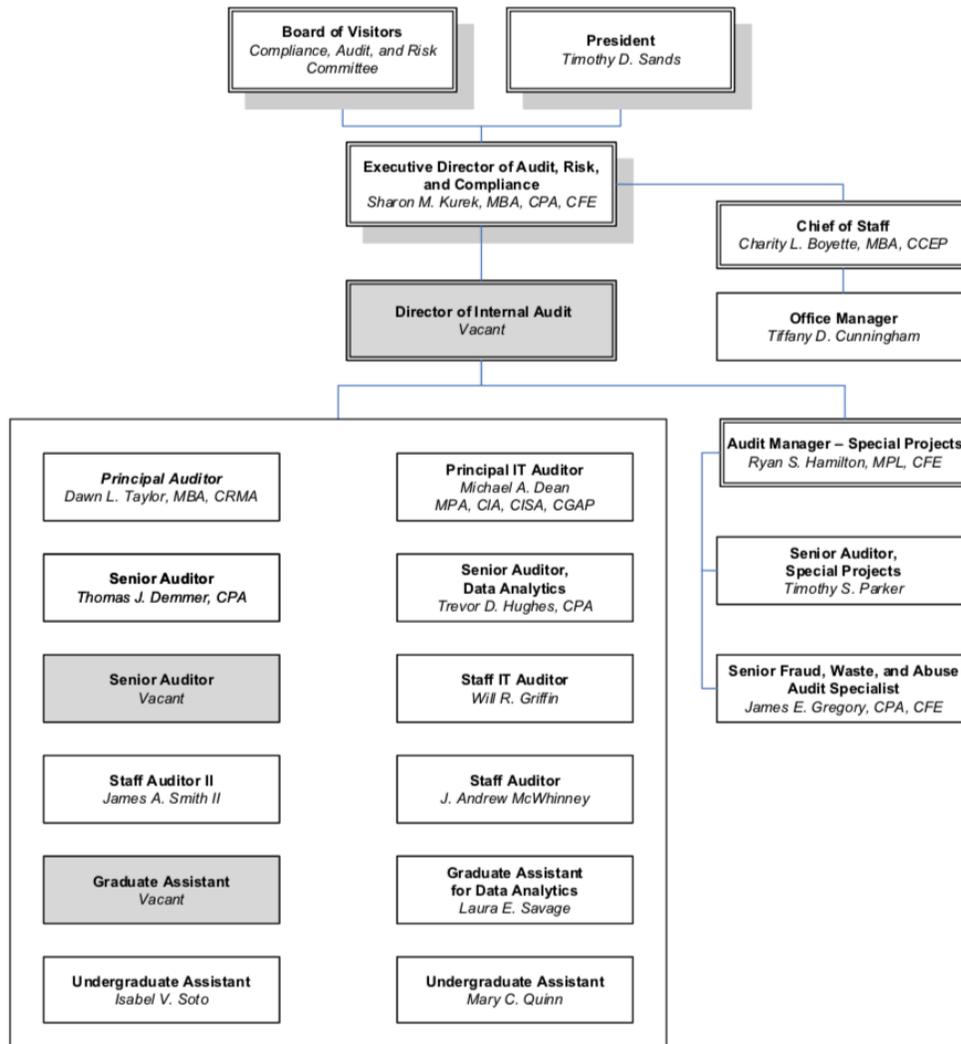
Credential Legend:
CPA – Certified Public Accountant
CIA – Certified Internal Auditor
CISA – Certified Information Systems Auditor
CFE – Certified Fraud Examiner
GCFA – GIAC Forensic Analyst
CGAP – Certified Government Auditing Professional
CRMA – Certification in Risk Management Assurance
CCEP - Certified Compliance and Ethics Professional
MBA – Master's of Business Administration
MPA – Master's of Public Administration
MPL - Master's of Policy Leadership

Organizational Structure
July 2019

Executive Director Sharon M. Kurek served as the Association of College and University Auditors (ACUA) Immediate Past President, the chair of the ACUA Ambassador Committee and Nominating Committee, and as a liaison to the ACUA AuditCon Program Committee for the Professional Education Committee. She remained a member of the ACUA Faculty Program, which is a resource to other associations or universities looking for talented speakers on topics such as risk, internal controls, auditing, compliance, and fraud. Additionally, Ms. Kurek collaborated with national peers from other institutions of higher education while participating on an external quality assessment team for the University of North Carolina at Chapel Hill internal audit function.

OARC leadership continued to actively participate within the College and University Auditors of Virginia (CUAV) organization, attending meetings with peer chief audit executives through the CUAV group to discuss best practices or issues. The Executive Director is a member of the CUAV Legislative Committee, which is proactively involved in the state legislative process with respect to laws and regulations pertinent to higher education internal audit and effective communication, thereof, to stakeholders. Staff continues to join with peer institutions through the Virginia Alliance for Secure Computing and Networking (VASCAN) group in an effort to plan and organize the annual fall conference aimed at improving information security in the higher education arena within the commonwealth. Additionally, several staff volunteer with the IIA Southwest Virginia Chapter. Reflecting the growth of the Institutional Compliance Program, both the Executive Director and the Chief of Staff joined the Society for Corporate Compliance and Ethics (SCCE); in addition, the Chief of Staff successfully completed the requirements for certification as a compliance and ethics professional (CCEP).

OARC staff has more than 225 years of combined professional experience in accounting, auditing, compliance, and IT, and nearly 70 years of service to Virginia Tech. The staff offers an extensive background with expertise in such functional areas as IT; fraud and forensics; environmental, health, and safety; NCAA bylaws; financial aid; research regulations; and general financial, compliance, and operational auditing. Additional expertise is growing related to ERM and ICP. Exhibit 9 lists the certifications and advanced degrees held by OARC staff at year's end.

Exhibit 9
Certification and Advanced Degrees held by OARC

Certification and Advanced Degrees			
Professional Certifications			
4	Certified Public Accountants (CPA)	1	Certified Government Auditing Professional (CGAP)
3	Certified Fraud Examiners (CFE)	1	Certified Forensics Analyst (GCFA)
2	Certified Information Systems Auditor (CISA)	1	Project Management Professional (PMP)
2	Certified Internal Auditor (CIA)	1	Certification in Risk Management Assurance (CRMA)
1 Certified Compliance and Ethics Professional (CCEP)			
Advanced Degrees			
5	Master of Business Administration (MBA)	1	Master of Policy Leadership (MPL)
1	Master of Policy Leadership (MPL)	4	Master of Science (Business Analytics, Environmental Natural Resources, Sociology, Sports Administration)

OARC ensures each staff member annually receives a minimum of 40 hours of continuing professional education (CPEs) to meet professional certification requirements and professional development. General training topics included auditing practices and techniques, fraud detection techniques, data analytics, and regulatory items, such as Title IX and payment card industry standards.

Resources

Exhibit 10 compares OARC's expenditures from fiscal year 2018-19 with expenditures for fiscal year 2017-18. The expenditures for salaries and benefits increased as the office filled several vacancies among staff members; similarly, training expenses increased by more than 60 percent, reflecting the office's investment in staff members new to higher education or internal audit work. In addition, due to the lingering effects of the previous year's vacancies, the decision was made to engage an external audit firm to complete two planned audit projects, resulting in a significant increase in that expense. The increased recruitment expenses were associated with relocation costs for two key hires. Costs continue to rise for software necessary to carry out OARC responsibilities in an effective and efficient manner, including electronic workpapers, data analysis tools, and the new Hokie Hotline.

Exhibit 10
Analysis of Expenditures

	FY2018	FY2019
Salaries and Benefits	$ 1,480,551	$ 1,568,657
Equipment	0	3,235
External Audit Firm Engagement	4,812	22,130
Operating Expenses	38,394	40,447
Training	30,018	50,825
Personnel Expenses & Recruitment	1,593	22,663
Audit Software	18,699	28,592
Total	**$ 1,574,067**	**$ 1,736,549**

Exhibit 11, on the following page, shows an analysis of operating expenses. Approximately 66 percent of operating expenses resulted from basic costs to support the department, including telecommunications, computer support, office supplies, and printing. Similarly, membership dues and publication expenses remains an ongoing cost as leadership encourages and sponsors professional certification and organizational participation.

Exhibit 11
Analysis of Operating Expenses

Travel - Audits
9%

Travel - Administrative
4%

Telecommunications
21%

Dues/Publications
21%

Computer Support
25%

Printing
12%

Office Supplies
8%
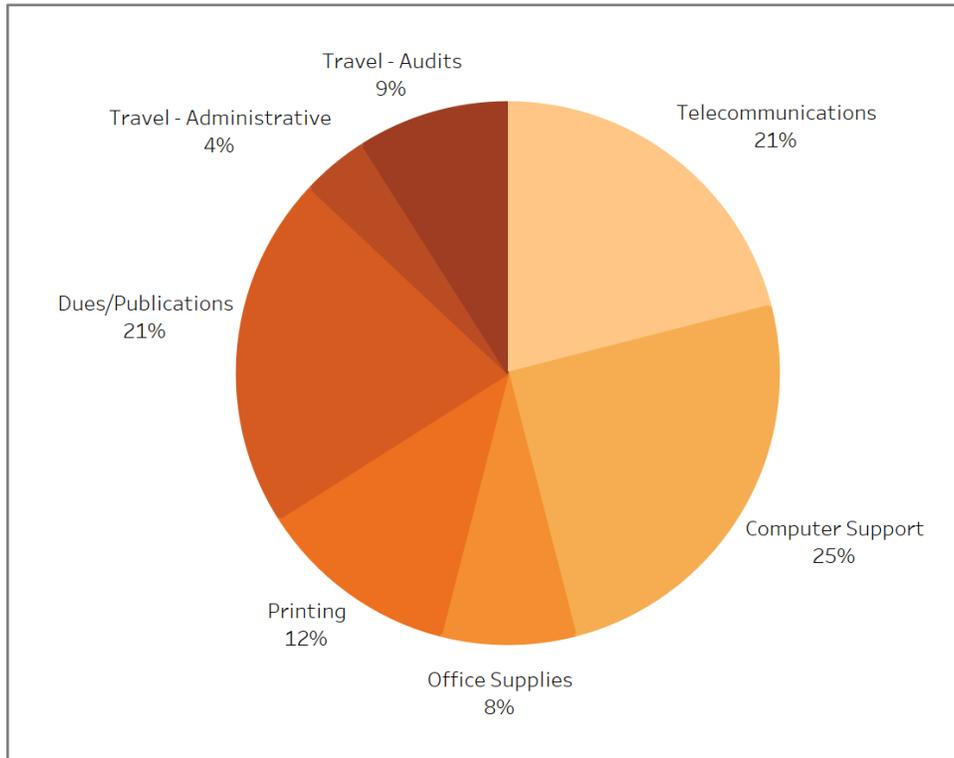
Review of 2018-19 Goals & Objectives

GOAL	DETAIL
1	Oversee the timely completion of the annual audit plan, investigations, and advisory services while identifying significant risks and deficiencies for management.
2	Procure and implement a fraud, waste, and abuse hotline service to offer an easy, safe, secure, and anonymous platform to accept tips and complaints from all sources about potential fraud, waste, and abuse at the university, as well as potentially other reporting matters.
3	Provide administrative support to the Compliance, Audit, and Risk Committee of the Board of Visitors.
4	Facilitating continued progress of the university's Enterprise Risk Management (ERM) program to review and assess the university's risk environment holistically.
5	Promote enhanced compliance coordination with periodic collaboration with compliance owners and other senior management officials as appropriate to identify and prioritize top compliance risks within the university's risk universe.
6	Support employee professional development and participation in professional activities.

Goal 1:   Oversee the timely completion of the annual audit plan, investigations, and advisory services while identifying significant risks and deficiencies for management.

Achievement Summary/Analysis:

Audits were performed in accordance with the fiscal year 2018-19 annual audit plan at a level consistent with the resources of the Office of Audit, Risk, and Compliance (OARC). For fiscal year 2018-19, OARC completed 86 percent of its amended audit plan, as 18 audit projects on the audit plan were completed including two carry forwards from the previous year.

OARC had 22 projects on the audit plan for the year, three of which we deferred to the 2019-20 plan due to staffing limitations. Projects regarding the School of Public and International Affairs and Research: Grants Management, as well as a policy compliance review of the Vice President for Student Affairs, are underway and will be carried forward into fiscal year 2019-20.

Action Plan:

The results reflect expectations. This is an annual recurring goal and the outcome will be measured again next year.

Goal 2: Procure and implement a fraud, waste, and abuse hotline service to offer an easy, safe, secure, and anonymous platform to accept tips and complaints from all sources about potential fraud, waste, and abuse at the university, as well as potentially other reporting matters.

Achievement Summary/Analysis:

Procurement and contracting processing was completed in early 2019 in coordination with three central offices (University Legal Counsel, IT Procurement and Licensing Solutions, and Procurement). OARC staff worked closely with the vendor to configure the system to serve as an external, anonymous, and confidential system to receive reports of potential fraud, waste, and abuse. The system launch is scheduled for late summer 2019.

Action Plan:

The new hotline will incorporate reporting opportunities related to perceived non-compliance as well as matters that may be considered representative of fraud, waste, or abuse; as well as other matters around the university as appropriate. OARC has worked with Business and Management Services to create an easily navigable website in support of the hotline, and planning is underway for a cross-campus awareness campus during the Fall 2019 academic term and beyond. OARC will facilitate the creation of a standing committee to monitor hotline submissions and identify trends.

Goal 3: Provide administrative support to the Compliance, Audit, and Risk (CAR) Committee of the Board of Visitors (BOV).

Achievement Summary/Analysis:

Starting with the September 2017 BOV meeting cycle, OARC has been primarily responsible for staffing all CAR Committee meetings.

Action Plan:

OARC leadership will continue to engage with university and BOV leadership in honing the most effective and efficient meeting structure for the CAR Committee and other BOV participation. OARC hired a Chief of Staff with dedicated responsibilities related to successful staffing of the CAR Committee.

Goal 4: Facilitate the university's Enterprise Risk Management (ERM) program to review and assess the university's risk environment holistically.

Achievement Summary/Analysis:

The program was undertaken by the university's executive leadership and developed within OARC in fiscal year 2017-18. During fiscal year 2018-19, OARC built upon the initial definition of the enterprise risk landscape and identification of risk owners during the previous year, focusing on development of risk snapshots with related action plans, as well as raising senior leadership awareness of particular risk areas. In addition, OARC facilitated two tabletop exercises using a case-based approach to focus on a specific enterprise risk area and foster cross-disciplinary examination of root causes and mitigation strategies. In August 2018, the Board of Visitors examined the risks to the university associated with the impact on university finances of an economic recession. At the June 2019 exercise, the President's Leadership Team discussed the challenges of recruiting and retaining staff to meet the university's growth and diversity goals in the coming years. After each exercise, OARC captured the factors and opportunities associated with each risk area and worked with the risk owners to develop actionable plans to address various elements.

Action Plan:

The ERM program at the university continues to grow and evolve, and OARC will continue to engage the BOV and Executive Leadership in assessing enterprise risk and development of mitigation strategies. OARC engaged senior leadership throughout the year and communicated with established risk owners regarding risk mitigation strategies. During FY 2020, OARC will lead risk owners and university leaders through a complete reassessment of the enterprise risk landscape. Continual assessment of the ERM program will continue.

Goal 5: Promote enhanced compliance coordination with periodic collaboration with compliance owners and other senior management officials as appropriate to identify and prioritize top compliance risks within the university's risk universe.

Achievement Summary/Analysis:

The program continues to emerge and evolve. The Compliance Advisory Committee (CAC) met multiple times in support of development of a complete database of the various compliance requirements faced by the university. Distributed university-wide compliance owners completed reviews of the regulations

assigned to them, and OARC worked with Business and Management Services to develop a risk assessment tool to launch in early fiscal year 2019-20.

Action Plan:

The ICP program at the university continues to emerge, and OARC will assist in promoting a culture of compliance and ethical behavior by:

- maintaining the compliance matrix of applicable regulations and authoritative guidance with responsible parties;
- implementing the compliance risk assessment process as a component of the ERM Program;
- facilitating the university compliance and ethics hotline; and
- providing assistance in responding to external reviews and investigations.

Goal 6: Support employee professional development and participation in professional activities.

Achievement Summary/Analysis:

Staff development was heavily emphasized. As of June 30, 2019, OARC held and maintained 16 active professional certifications across varying organizations, and all staff exceeded 40 hours of CPE in line with professional standards and departmental goals. The Executive Director served as the Immediate Past President of the Association of College and University Auditors, and the former Director of Internal Audit served on the governing board of the same organization. Continued emphasis will be placed on diversity training and awareness with employees new to the department or university.

Action Plan:

The results reflect expectations. This is an annual recurring goal, and the outcome will be measured again next year.

Per Charter:

The internal audit function will conduct its activities in accordance with the Institute of Internal Auditors' International Professional Practices Framework including the Core Principles for the Professional Practice of Internal Auditing, Definition of Internal Auditing, Code of Ethics, and *International Standards for the Professional Practice of Internal Auditing*.

MANDATORY GUIDANCE	
Core Principles	- Demonstrates integrity. - Demonstrates competence and due professional care. - Is objective and free from undue influence (independent). - Aligns with the strategies, objectives, and risks of the organization. - Is appropriately positioned and adequately resourced. - Demonstrates quality and continuous improvement. - Communicates effectively. - Provides risk-based assurance. - Is insightful, proactive, and future-focused. - Promotes organizational improvement.
Definition of Internal Auditing	Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.
Code of Ethics	Internal auditors are expected to apply and uphold the following principles: - Integrity – The integrity of internal auditors establishes trust and thus provides the basis for reliance on their judgment. - Objectivity – Internal auditors exhibit the highest level of professional objectivity in gathering, evaluating, and communicating information about the activity or process being examined. Internal auditors make a balanced assessment of all the relevant circumstances and are not unduly influenced by their own interests or by others in forming judgments. - Confidentiality – Internal auditors respect the value and ownership of information they receive and do not disclose information without appropriate authority unless there is a legal or professional obligation to do so. - Competency – Internal auditors apply the knowledge, skills, and experience needed in the performance of internal audit services.
International Standards for the Professional Practice of Internal Auditing	**Attribute Standards (1000 through 1300)** 1000 Purpose, Authority, and Responsibility 1100 Independence and Objectivity 1200 Proficiency and Due Professional Care 1300 Quality Assurance and Improvement Program **Performance Standards (2000 through 2600)** 2000 Managing the Internal Audit Activity 2100 Nature of Work 2200 Engagement Planning 2300 Performing the Engagement 2400 Communicating Results 2500 Monitoring Progress 2600 Communicating the Acceptance of Risks

August 25, 2019

OFFICE OF AUDIT, RISK, AND COMPLIANCE

ANNUAL STATUS REPORT

Sharon M. Kurek, CPA, CFE, MBA
Executive Director of Audit, Risk, and Compliance
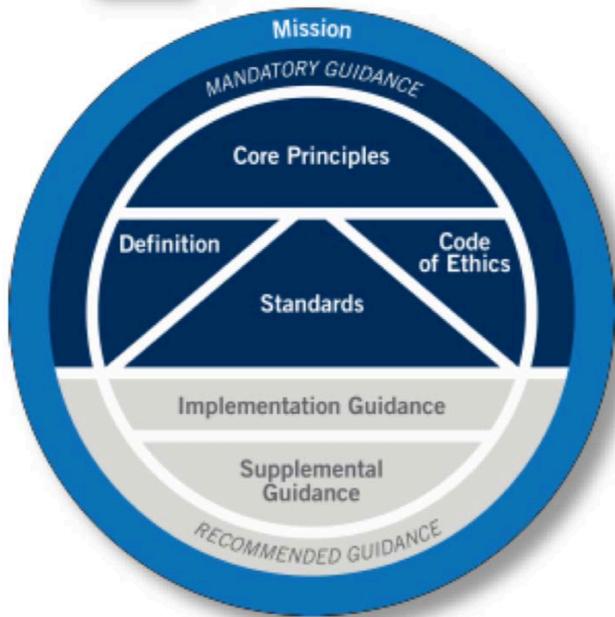
The chief audit executive's reporting and communication to senior management and the board must include information about:

- The audit charter, including internal audit activity's purpose, authority, and responsibility.

- Independence of the internal audit activity.

- The audit plan and progress against the plan.

- Resource requirements.

- Results of audit activities.

- Conformance with the Code of Ethics and the Standards, and action plans to address any significant conformance issues (Quality Assurance & Improvement Program).

- Management's response to risk that, in the chief audit executive's judgment, may be unacceptable to the organization.

2

OARC Mission

- *The Office of Audit, Risk, and Compliance (OARC) performs independent internal audits, plans and oversees the university risk management process, and oversees the institutional compliance program. OARC's mission is to enhance and protect organizational value by providing risk-based and objective assurance, advice, and insight as follows:*

- *AUDIT - Provide independent, objective assurance and advisory activity designed to add value and improve university operations. Audits help the university accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.*

- *ENTERPRISE RISK MANAGEMENT - Provide oversight of the enterprise risk management program by creating and maintaining the framework to effectively identify, assess, and manage risk.*

- *COMPLIANCE - Provide oversight of the institutional compliance program and the distributed processes that support compliance across the university.*

3

STATE OF UNIVERSITY'S CONTROL ENVIRONMENT

- *Management accepts their responsibility for internal control and is supportive of audit efforts*

- *Management generally accepts audit recommendations and responds by developing action plans to address concerns*

- *No material control weaknesses were identified; however, a number of areas requiring improvement were noted*

- *Work was not limited by management, and independence/objectivity was not impaired*

- *No areas identified where management decided to accept a level of risk believed to be unacceptable*

VIRGINIA TECH

FY 2018-19 Completion of Audit Plan

Audits	
Total # of **Audits** Planned	22
Total # of Supplemental **Audits**	0
Total # of Carry Forwards	2
Total # of Planned **Audits** Deferred and/or Canceled	3
Total Audits in Plan as Amended	21
Total **Audits** Completed	18
Audits - Percentage Complete	86%
Audits - Percentage Complete or Underway	100%
Note: Includes Policy Compliance Reviews and Advisory Services	

Results of FY 2018-19 Surveys for Evaluating OARC Services
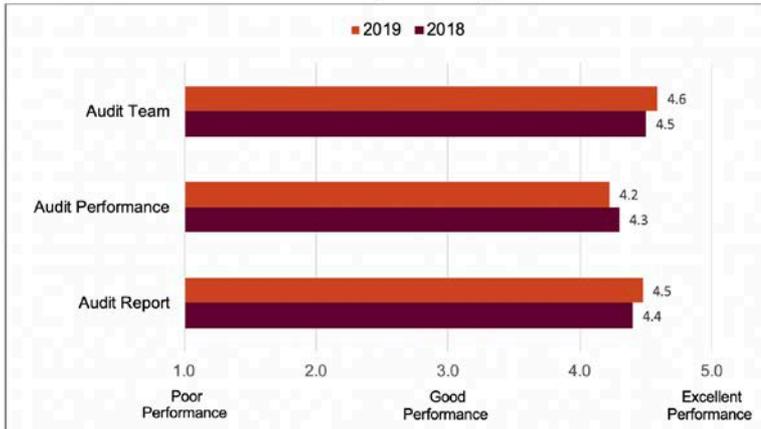
FY 2018-19 Distribution of Direct Audit Hours
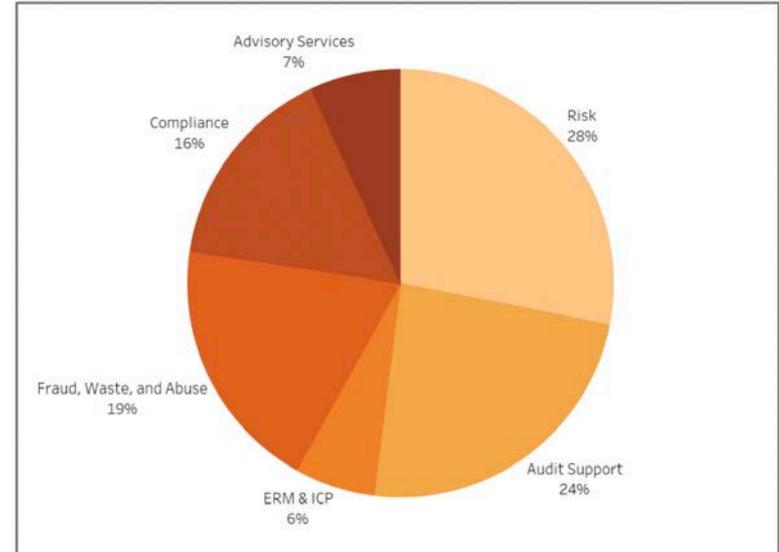
- Advisory Services 7%
- Risk 28%
- Compliance 16%
- Audit Support 24%
- Fraud, Waste, and Abuse 19%
- ERM & ICP 6%

Inventory of MCAs

Beginning # of MCAs	25
MCAs added	49
MCAs closed	40
Current open inventory of MCAs	34

5

FRAUD, WASTE, AND ABUSE (FWA)

Institutional Compliance Program (ICP)

COMPLIANCE FRAMEWORK

BOARD OF VISITORS

CAR COMMITTEE

PRESIDENT

AUDIT, RISK, & COMPLIANCE

EXECUTIVE STAFF+ COMPLIANCE COMMITTEE (ECC)

President
Executive VP and Provost
Senior VP for Operations and Admin.
Vice President for Finance
Executive Director of Audit, Risk, & Compliance+

VP for Policy and Governance+
VP for Research and Innovation
VP for Strategic Affairs
University Legal Counsel+

PRESIDENT'S LEADERSHIP TEAM

COMPLIANCE ADVISORY COMMITTEE REPRESENTATION (CAC)

Accreditation
Conflict of Interest
Human Resources
Emergency Management
Equity & Accessibility and Title IX
FERPA
Finance
Government Relations
Health and Safety
Information Technology

Intercollegiate Athletics
International Affairs
Research
Safety and Security
Student Affairs
Academic College
Research Institute
Policy and Governance
University Legal Counsel
Audit, Risk, & Compliance (Chair)

DISTRIBUTED UNIVERSITY-WIDE COMPLIANCE OWNERS

STATISTICS

- *CAC – 20 Members*

- *75+ Distributed Compliance Owners*

- *450+ Regulations in Compliance Matrix*

8
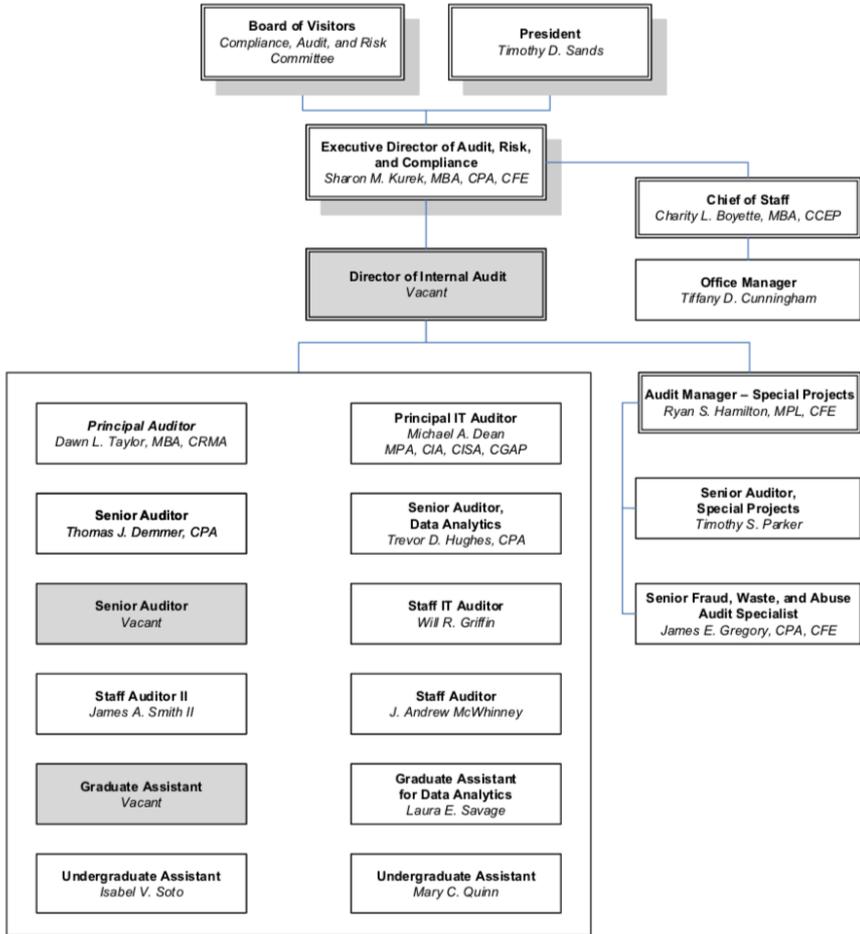
Certification and Advanced Degrees held by OARC Staff

Professional Certifications	
4	Certified Public Accountants (CPA)
3	Certified Fraud Examiners (CFE)
2	Certified Information Systems Auditor (CISA)
2	Certified Internal Auditor (CIA)
1	Certified Government Auditing Professional (CGAP)
1	Certified Forensics Analyst (GCFA)
1	Project Management Professional (PMP)
1	Certification in Risk Management Assurance (CRMA)
1	Certified Compliance and Ethics Professional (CCEP)
Advanced Degrees	
5	Master of Business Administration (MBA)
1	Master of Policy Leadership (MPL)
1	Master of Public Affairs (MPA)
4	Master of Science (Business Analytics, Environmental Natural Resources, Sociology, Sports Administration)

9

OARC Resources

Analysis of Expenditures

	FY2018	FY2019
Salaries and Benefits	$ 1,480,551	$ 1,568,657
Equipment	0	3,235
External Audit Firm Engagement	4,812	22,130
Operating Expenses	38,394	40,447
Training	30,018	50,825
Personnel Expenses & Recruitment	1,593	22,663
Audit Software	18,699	28,592
Total	**$ 1,574,067**	**$ 1,736,549**

QUESTIONS?

Office of Audit, Risk, and Compliance
Fiscal Year 2019-20 Audit Plan
August 1, 2019

OVERVIEW

The Office of Audit, Risk, and Compliance (OARC) conducts risk-based assurance engagements, policy compliance reviews, management advisory services, and investigations. The risk-based assurance engagement is an objective examination of evidence to provide an independent assessment of governance, risk management, and the control systems within the university. The objective of the policy compliance review is to ensure all senior management areas (even low risk) receive periodic reviews from OARC every five years to perform tests of compliance with major university business policies. The nature and scope of management advisory service activities, developed through agreement with the client, add value and improve the university's governance, risk management, and control processes without the internal auditor assuming management responsibility.

RISK ASSESSMENT PROCESS

Enterprise Risk Assessment (ERM)
The university instituted an Enterprise Risk Management (ERM) initiative during fiscal year 2017-18 to provide enhanced visibility into the university's risks and to align strategic planning with the resulting risk awareness. OARC facilitates the ERM program by working with university leadership to establish and maintain the framework for collectively identifying and assessing risks across the enterprise. The ERM program intends to strengthen the university's ability to achieve its mission and strategic objectives by:

- Obtaining a holistic view of the most critical risks to the achievement of Virginia Tech's mission and objectives;
- Creating a risk-aware culture, including the management of risks to an appropriate level of risk tolerance;
- Improving focus and perspective on both internal and external risks and opportunities, including emerging risks and value drivers;
- Enhancing decision making and alignment with strategic goals; and
- Improving efficiency and optimizing allocation of resources through risk prioritization.

University leadership provided feedback for the initial ERM process by assessing the risks in terms of likelihood of occurrence, significance of impact, and velocity of onset, all grouped by the categories depicted below:

ERM RISK CATEGORIES	ALTITUDES OF RISK
Strategic	Systemic and Existential
Financial	Institutional
Compliance	Unit-Level
Operational	
Reputational	

In order to maximize efficiency and engagement from university senior leadership, OARC leveraged this complimentary process as an element of the traditional annual risk assessment in support of audit plan development.

OARC Audit Planning Risk Assessment

University departments and administrative operations were grouped into approximately 175 auditable entities or responsibility centers based on common missions and the existing organizational structure. For each auditable entity, OARC reviewed financial data, including expenditures, revenues, cash receipts, federal contracts and grants, and total employees.

Auditable Entities Risk Ranking

■ HIGH   ■ MEDIUM   ■ LOW
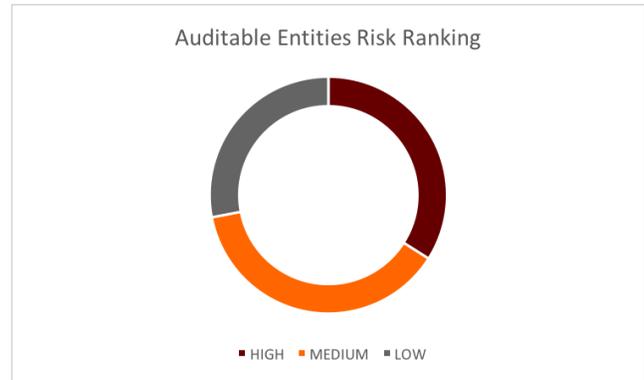
The relative risk was assessed on a judgmental basis for the following qualitative and quantitative factors.

RISK FACTORS
Quality and Stability of Control Environment
Business Exposure (Materiality and Liquidity of Operational Resources)
Public and Political Sensitivity
Compliance Requirements
Information Technology and Management Reporting

Elements considered within these factors included:

- Management's awareness of internal controls;
- Stability and expertise of management;
- Interval since the last audit review;
- Complexity of operations and technology applications;
- Materiality or financial impact to the university;
- Potential impact to reputation;
- Impact of noncompliance with internal and external policy, procedure, regulatory, and statutory requirements; and
- Reliance on information and management reporting for operating decisions, monitoring performance, providing services, and allocating resources.

The chart depicts the results of the risk assessment classifications. The risk assessment results were consistent with previous risk assessments conducted by OARC.

IT Risk Assessment

OARC has also created a university-wide information technology (IT) risk-based audit plan mapped to the ISO 27002 standard, a best practice for developing and maintaining enterprise-wide IT security that is also referenced by university policies. OARC consulted with key IT personnel to ensure that audit coverage is maximized and properly targeted.

The assessment of IT and business operations at the university identified four high-level risk domains intended to encapsulate the vast majority of the systems and computing environments within the university as follows:

- Student Systems;
- Finance and Administrative Systems;
- Human Resources Systems; and
- Research Systems.

The IT audit approach includes a variety of topical audits to gain a better understanding of the university-wide environment instead of narrowly focusing on the performance of individual departments. This approach also allows OARC to maintain current knowledge of the IT security and operating conditions in a dynamic industry through the constant evaluation and reassessment of planned audit engagements.

CORE AUDIT PLAN

OARC has identified certain critical areas for inclusion in the core audit plan to ensure that adequate coverage is provided over a reasonable time. To obtain additional insight and to validate the plan, OARC management conducted one-on-one discussions with senior leadership to identify reputation factors, regulatory changes, organization shifts, new initiatives, and deployment of new systems or technology tools.

The critical areas for core audit plan inclusion are:

- Academic Units
- Auxiliary Enterprises and Athletics
- Campus Safety and Security
- Enrollment Services
- Facilities and Operations
- Financial Management
- Human Resources
- Information Technology
- Off-Campus Locations
- Research
- Student Services

The core audit plan includes several multi-year audits that will allow for annual reviews of selected components of areas with high external compliance risk and complex operations. These areas are University Scholarships and Financial Aid, Research, Human Resources, and Intercollegiate Athletics.

FISCAL YEAR 2019-20 AUDIT PLAN

The audit plan focuses on delivering value to Virginia Tech with an emphasis on the following risk areas: strategic, operational, financial, compliance, and IT. If new topics emerge during the audit plan period that require more immediate attention, reconfiguration of the plan can be undertaken to accommodate these changes. OARC's goal is to complete 85 percent of the audit plan. As each audit is undertaken, risks will be re-evaluated to ensure proper audit coverage with consideration of confidentiality, integrity, and availability. Annual expenditures and revenues referenced below reflect fiscal year 2017-18 data unless otherwise noted.

Risk-Based Assurance

Planned Engagement	Overview	Risk Area
Admissions	The admissions process in higher education has become a hot topic on the national stage, particularly with the media attention regarding recent scandals and law enforcement efforts. Admissions for prospective students is handled in a distributed manner, with freshman, transfer, and international admissions handled by Undergraduate Admissions within Enrollment Management at the university, and graduate admissions through the Graduate School. For the 2018 fall semester, Virginia Tech's Undergraduate Admissions and Graduate School received applications from approximately 32,000 and 7,500 students, respectively. Although this review will examine operations across the university, admissions activity was last reviewed for the Graduate School in 2016 and for Undergraduate Admissions in 2017.	Operational – Enrollment Services
Athletics *	The Department of Athletics (Athletics), with 22 varsity sports at the NCAA Division I level, monitors and supports more than 550 student-athletes each academic year. Athletics had operating revenues of approximately $98 million and total operating expenses of approximately $93 million. Different components of Athletics are reviewed annually so that a comprehensive audit of high-risk activities is conducted on an on-going basis.	Compliance – Athletics
Americans with Disabilities Act (ADA) Compliance	Virginia Tech is committed to equal opportunity in employment and education for individuals with disabilities and complies with the ADA, as amended, and Section 504 of the Rehabilitation Act of 1973. ADA and Accessibility Services consults with colleges and departments both on and off campus to ensure equal opportunity for individuals with disabilities. Employees with disabilities may be entitled to reasonable accommodations under Title 1 of the ADA. Given the applicability to students, the Services for Students with Disabilities office also has a role in helping to ensure reasonable accommodations and ADA compliance. ADA compliance has not previously received a focused review.	Compliance – Human Resources and Student Services
Center for International Research, Education and Development (CIRED)	As part of Virginia Tech's Outreach and International Affairs, CIRED is a university-wide center. It supports the university's international mission by identifying and pursuing partnerships and funding opportunities for Virginia Tech to become involved in research, teaching, and development across the world. Working with colleges, institutes, departments, and other centers, CIRED identifies areas where the university has distinct expertise and comparative advantages and matches them to specific funding opportunities. The center also strengthens faculty and student capabilities for high-quality, multidisciplinary international engagement.	Operational – Off-Campus Locations and Research

Planned Engagement	Overview	Risk Area
	Total expenditures were approximately $7.9 million, including approximately $6.2 million in research. This area last received a dedicated review in 2013.	
Center for the Arts	Virginia Tech's Moss Arts Center presents renowned artists from around the globe and from close to home, with a special focus on experiences that expand cultural awareness and deepen understanding. Uniquely partnered with the Institute for Creativity, Arts, and Technology, the Moss Arts Center houses the Street and Davis Performance Hall and its Anne and Ellen Fife Theatre, visual art galleries, experimental venue the Cube, and research studios. The Moss Arts center had approximately $9.4 million in revenue and has not previously received a dedicated review.	Operational – Auxiliaries
Chemical Engineering	The Chemical Engineering department is addressing the challenges of the 21st century and preparing students to be tomorrow's leaders in industry and academia. Faculty and students do research in areas including energy and water sustainability, the environment, health technologies, and materials and manufacturing. Areas of expertise include biomedical engineering, polymer science and engineering, colloids and interfaces, process design and systems engineering, catalysis and surface science, supercritical fluids, and membranes and advanced separation techniques. Total expenditures were approximately $8.9 million, including approximately $3 million in research. Although previously included in college-wide audits, the department has not previously received a dedicated review,	Operational – Academic
Facilities: Site and Infrastructure Development	Site and Infrastructure Development is primarily responsible for the administration, compliance, and enforcement of Virginia Tech's stormwater management programs. The office is charged with managing, implementing, evaluating, and improving the university's municipal separate storm sewer system program and the standards and specifications for erosion and sediment control and stormwater management. Additionally, the office is charged with educating the university and surrounding community about stormwater impacts, including reporting illicit discharges, controlling stormwater runoff at construction sites, and working to prevent pollution from municipal operations. This area has not previously received a dedicated audit.	Compliance – Facilities and Operations
Graduate Education	The Virginia Tech Graduate School is responsible for the development, administration, and evaluation of graduate education throughout the University and administers all graduate degrees. The Graduate School currently offers more than 150 master's and doctoral programs for over 6,000 students at multiple locations throughout the Commonwealth of Virginia, through partnerships with the University of Maryland and Wake Forest University, and at several international sites. The last dedicated review was in 2013.	Operational – Enrollment Services
Human Resources (HR): Payroll	The Payroll Office is responsible for paying all 13,000 University employees on time and correctly. They also make all payroll related tax deposits and reports, process retroactive funding changes, reconcile health care billings, make retroactive pay adjustments, pay all third party payroll vendors, as well as collect and disburse all garnishments, tax liens, and child support orders. In addition, they are responsible for obtaining and maintaining all I-9's and are charged with determining the taxability and employability of all non-resident alien employees. Different components of HR and payroll activities are reviewed annually so that a	Operational – Human Resources

Planned Engagement	Overview	Risk Area
	comprehensive audit is conducted on an on-going basis. This area last received a dedicated review in 2012.	
IT: Banner Applications	The applications within Banner (the university's Enterprise Resource Planning system); including modules for Student, Finance, Human Resources, and Financial Aid; serve as the primary system of record for comprehensive data related to students, employees, and alumni. This review will focus on the effectiveness of the university's enterprise system environment and ensuring its critical information is securely accessible while safeguarding against loss, abuse, and corruption. The last dedicated review in this area was in 2014.	Information Technology
IT: Data Privacy	Institutions of higher education use, collect, store, and transmit a wide array of data routinely. This data may include research data, academic records, medical information, financial data, and the personally identifiable data of faculty, staff, students, alumni, and any other person that comes into contact with the institution. Some of the ongoing federal or external regulations governing data privacy and its dissemination include: FERPA, HIPAA, GLBA, and more recently GDPR from the European Union. Many states have introduced additional privacy legislation that may impact the way the university operates. Individual privacy elements have been previously reviewed, but the broader topic has not received a dedicated audit.	Information Technology
IT: Log Management	According to the Center for Internet Security, deficiencies in security logging and analysis allow attackers to hide their location, malicious software, and activities on victim machines. Even if the victims know that their systems have been compromised, without protected and complete logging records they are blind to the details of the attack and to subsequent actions taken by the attackers. Without solid audit logs, an attack may go unnoticed indefinitely and the particular damages done may be irreversible. The five parameters of a complete log management process include collection, storage, search, correlation, and output. This topic has not previously received a dedicated audit.	Information Technology
IT: Windows Server Security	Servers are used widely to perform a variety of tasks, from network attached file storage or collaborative database hosting to processing email or print requests. As such, servers often present significant risks when not properly secured. A large percentage of the university's servers operate on the Windows platform. Focus will be on Windows Server security across the university, including distributed locations, in various administrative, academic, and research departments. Windows Server security was last audited in 2014.	Information Technology
Parking and Transportation	Virginia Tech has more than 16,400 parking spaces, a motorist assistance program, a fleet of approximately 300 vehicles, and a robust and award-winning alternative transportation program that includes daily shuttles from the Blacksburg campus to the facilities in Roanoke as well as to the National Capital Region. In addition to the 33,000 students and more than 13,000 employees, an estimated 60,000 alumni, parents, and community members visit the campus each year. This area had in excess of $14 million in revenue and last received a dedicated review in 2014.	Operational – Auxiliary Enterprise
Physical Security	For a large decentralized university, physical security of people, equipment, and property always presents a significant challenge. Safety is a key priority for a variety of offices through the use of mechanisms including access control, security cameras, intrusion alarms, and notification systems. While physical keys are still heavily relied upon, more than 6,000 interior and exterior campus doors are now	Operational - Campus Safety and Security

Planned Engagement	Overview	Risk Area
	secured as part of the Hokie Passport Services (HPS) Electronic Door Access Program. Most of the university's card based access is centralized through HPS, but there are a few remaining standalone systems in use at the university. Various elements of physical security have been reviewed historically, but an over-arching review of this nature has not been performed.	
Research: Continuity of Operations *	As a global top 50 research institution with over $530 million in research expenditures, Virginia Tech has a tremendous amount of field and laboratory-based research being conducted at all times. These activities are dependent on many operational elements, including continued electricity, heating and/or refrigeration, humidity control, fire detection/suppression, lighting, network or Internet connectivity, among others. As a result, various university divisions inside and outside the academic enterprise all play a pivotal role in ensuring the continuity of research operations in support of achieving the university's strategic goals and operations. Various elements of operations continuity have been reviewed previously, but a targeted review of these activities as they relate to research has not been previously conducted.	Operational – Research
Research: Human Subject Safety *	The Human Research Protections Program (HRPP) at Virginia Tech is designed to support researchers in meeting their ethical and regulatory responsibilities to human research participants. The HRPP protocol coordinators are highly trained subject matter experts in the regulatory requirements for research that involves people. Federal regulations require that all research involving human participants undergo review by a board of scientific and faculty peers, called an Institutional Review Board, or IRB. This topic was last reviewed in 2012.	Compliance – Research
Title IX Compliance	Maintaining a campus free of sex discrimination, including sexual misconduct and sexual harassment, is important for all students and employees. Title IX of the Education Amendments (1972) prohibits discrimination on the basis of sex in any educational program or activity that receives federal financial assistance. Failure to comply with Title IX can include the termination of all or part of a university's federal funding. This includes grants, subsidies, and other program funds from the federal government. In addition to the loss of federal funds, universities may be sued by those seeking redress for violations of Title IX. It is essential that institutions receiving federal financial assistance operate in a nondiscriminatory manner. Although external reviews have occurred, this topic has not previously received a dedicated review.	Compliance – Campus Safety and Security
University Scholarships and Financial Aid*	The Office of University Scholarships and Financial Aid (USFA) supports the university's student access, enrollment, and retention goals by providing the financial means to encourage economic, social, cultural, and academic diversity in the student body. USFA provided or monitored approximately $486 million in student financial assistance. A complete audit of the various activities within USFA is performed over a four-year period.	Compliance – Enrollment Services
Veterinary Teaching Hospital and Equine Medical Center	The Veterinary Teaching Hospital provides primary and specialized medical care and large animal ambulatory field services to animals residing in the Blacksburg area and referred by practitioners in the region. The Marion duPont Scott Equine Medical Center in Leesburg, Virginia is a full-service equine hospital which offers advanced specialty care, 24-hour emergency treatment, and diagnostic services. The hospitals and large animal field services treat a combined 79,000 animals annually.	Operational - Academic

Planned Engagement	Overview	Risk Area
	The hospitals had $15.7 million in combined revenue. The last review of these areas was in 2012.	
VCE – Northern District	Virginia Cooperative Extension (VCE) is an educational outreach program of Virginia's land-grant universities: Virginia Tech and Virginia State University. VCE – Northern District is made up of approximately 28 county and city offices and had $6.9 million in expenditures and $1.5 million in revenue, which was almost entirely in the form of cash receipts. A review focused specifically on the Northern District has not been conducted before; however, other districts have been reviewed previously.	Operational – Off-Campus Locations
Virginia Tech Transportation Institute (VTTI)	VTTI has grown from approximately 15 faculty, staff, and students to become the second largest university-level transportation institute in the U.S. with more than 500 employees. VTTI has effected significant change in public policies for driver, passenger, and pedestrian safety and is advancing the design of vehicles and infrastructure to increase safety and reduce environmental impacts. VTTI had nearly $49 million in expenditures, including more than $35 million in sponsored research, and last received a dedicated review in 2013.	Operational – Research

* Entity receives an annual audit on different components of their operation.

University Policy Compliance Reviews

OARC will continue its program of limited scope reviews of senior management areas. These reviews evaluate major aspects of a department's administrative processes using internal control questionnaires and limited testing that provides broad audit coverage ensuring compliance with university policies on campus.

Planned Engagement	Overview	Risk Area
College of Natural Resources and Environment	The College of Natural Resources and Environment (CNRE) is comprised of four academic departments containing eight undergraduate majors and is the only college specializing in natural resource education, research, and outreach in Virginia. CNRE had expenditures of $37.8 million, including $16.3 million in sponsored research. The last policy compliance audit of this area was in 2014.	Operational
College of Science	The College of Science (COS) is reimagining the role of science and education. COS students immerse themselves in hands-on learning and undergraduate research to help solve complex issues locally, regionally, and globally alongside our world-class faculty and research staff. COS had expenditures of nearly $107.5 million, including $26.3 million in sponsored research. The last policy compliance audit of this area was in 2015.	Operational
Vice President for Diversity, Inclusion, and Strategic Affairs	The Vice President for Diversity, Inclusion, and Strategic Affairs oversees the Office for Inclusion and Diversity, which is responsible for providing leadership on InclusiveVT, and the Office for Strategic Affairs, which collaborates with the Virginia Tech community to understand challenges and opportunities, guide strategic and continuous planning, and help advance the university through feasible, measurable, and sustainable objectives. There has not yet been a policy compliance review in this area.	Operational
Vice President for Operations	The Vice President for Operations oversees the Division of Operations, which is responsible for providing essential operations functions in support of the university's mission. These include ensuring proper management of university	Operational

Planned Engagement	Overview	Risk Area
	physical assets; planning, design, construction, maintenance, and operation of the physical plant; managing real estate activities; complying with governmental, environmental, health, and safety regulations; assuring a safe and supportive campus environment; and others. The last policy compliance review in this area was in 2015.	
Vice President for Information Technology	The Vice President for Information Technology and Chief Information Officer oversees a division responsible for enhancing and supporting teaching and learning; participating in, supporting, and enhancing research; fostering outreach, developing partnerships with communities, and promoting the capabilities of advanced networking and communications; and providing, securing, and maintaining information systems allowing the university to accomplish its missions. The last policy compliance review in this area was in 2015.	Operational
Virginia Tech Carilion School of Medicine	Through a unique public-private partnership between a cutting edge-research university and a major health care institution, the Virginia Tech Carilion School of Medicine (VTCSOM) educates physician thought leaders through inquiry, research, and discovery. The college has four value domains that drive its educational goals and objectives and that are interwoven throughout the four-year curriculum: basic science, clinical science, research, and interprofessionalism. Newly established as part of the university in 2018, there has not yet been a policy compliance review in this area.	Operational

Management Advisory Services

Planned Engagement	Overview	Risk Area
Research Institutes – Operational Alignment	The Office of the Vice President for Research and Innovation bolsters the research enterprise at Virginia Tech through services and support that help faculty, staff, and students plan, perform, and commercialize groundbreaking research. The research institutes of Virginia Tech enhance the university's ability to address large-scale research opportunities by crossing traditional disciplinary and college lines. This review is intended to assess the organizational structure, personnel reporting, and budget authority for Virginia Tech's university-level research institutes and university/institute-level centers in an effort to minimize risk.	Operational – Research
International Dependencies	Virginia Tech's mission is to be a leading global university; one that has a worldwide perspective, empowers graduates to solve world challenges, and is a top destination for global talent and innovation. Among the tremendous benefits, this global viewpoint introduces an element of risk in the form of dependency on international populations, governments, and infrastructure. This review is in follow-up to an Enterprise Risk Management tabletop exercise focused on potential impacts of reduced international student enrollment and will focus on specific and general takeaways regarding the identification of opportunities in this space.	Operational – Enrollment Services and Research
Honors College	The mission of the Virginia Tech Honors College is to inspire and facilitate an extraordinary undergraduate education for students of exceptional motivation with a variety of life experiences. Honors students seek to be active learners and strive to apply their knowledge and skills to tackling critical real-world problems. Academic and professional requirements maximize the disciplinary depth, transdisciplinary capabilities, inclusive perspectives, and purpose-driven engagement that are the hallmarks of the VT-Shaped student experience. This	Operational – Academic Units

Planned Engagement	Overview	Risk Area
	review is intended to assist management of this relatively new college in assessing its operational practices.	

Special Projects and Annual Audit Activities

Activity	Overview
Special Projects	Investigate fraud, waste, and abuse allegations.
Annual Audit Activities (Follow-up, Inventory)	Conduct follow-up audit procedures to ensure that management is implementing controls as described within their responses to audit report recommendations. Assist management with year-end inventory counts for financial statement verifications.
External Audit Coordination	Manage and serve as the liaison for all external audit services, including contracted and regulatory-imposed audits.
Quality Assurance	OARC will undergo a mid-cycle review of its Quality Assurance and Improvement program to assess operations and practices with applicable standards. Additional effort will go into internal assessment to ensure the most effective and efficient procedures are in place and to identify means of improving overall performance.

AUDIT RESOURCES

The audit plan for fiscal year 2019-20 is based on professional staffing of 13 full-time equivalents (FTEs). Staffing will continue to be augmented by the continuation of the student internship program in which 3-4 Virginia Tech students are employed. Approximately 75 percent of OARC's available resources are committed to the completion of planned audit projects, management advisory reviews, and investigations. The annual audit plan is designed to provide appropriate coverage utilizing a variety of audit methodologies, including audits of individual units, functional and process audits, university-wide reviews, and information system projects. OARC conducts follow-up audit procedures throughout the year to ensure that management is implementing controls as described within their responses to audit report recommendations.

Audit resources are allocated as follows:
- 59 percent of OARC's available resources are committed to the completion of planned audit projects and follow-up audit procedures.
- 10 percent to accommodate requests from management and consultations with university departments.
- 7 percent to conduct investigations into fraud, waste, and abuse allegations.
- 11 percent for employee professional development, internal quality improvement projects, and other internal administrative functions.
- 13 percent for compensated absences such as annual, sick, and holiday leave.

AUDIT PLAN MAPPED TO ERM

As part of the ERM program, university leadership recently identified key residual risks across six thematic areas. The graphic below depicts how planned projects will provide audit coverage of enterprise risks.

ENTERPRISE RISK LANDSCAPE

ACADEMIC	CAMPUS CULTURE AND CLIMATE	EXTERNAL ENVIRONMENT	FINANCIAL	RESEARCH	UNIVERSITY OPERATIONS
Faculty & Staff Recruitment & Retention	Leadership & Governance	Legal & Regulatory	Federal & State Funds	Research Compliance	Expanding Physical Footprint
Global Engagement	Athletics	Socio-Political Environment	Tuition Dependency	Competitive Growth	Safety & Security
Evolving Pedagogy & Delivery	Title IX	Partners	Resource Management	Integrity & Conflicts of Interest	IT Security & Operations
Enrollment Management	Diversity & Inclusion	Alumni & Friends	Advancement	Restricted Research	Infrastructure & Facilities
Academic Quality	Student Experience	Accreditation	Endowment Income	Intellectual Property	Disaster Recovery & Business Continuity

REPUTATIONAL / COMPLIANCE

OFFICE OF AUDIT, RISK, AND COMPLIANCE
AUDIT PLAN
Fiscal Year 2019-20

August 25, 2019

Sharon M. Kurek, CPA, CFE, MBA
Executive Director of Audit, Risk, and Compliance

VIRGINIA TECH.

OVERVIEW – ANNUAL AUDIT PLAN

The Office of Audit, Risk, and Compliance (OARC) conducts:

- Risk-Based Assurance Engagements
- Policy Compliance Reviews
- Management Advisory Services
- Investigations

Annual risk assessment process informs and guides the development of the audit plan for the next fiscal year

RISK ASSESSMENT PROCESS

Components of the annual risk assessment process included:

- **ERM**
  - Separate but related university initiative
  - Incorporates perspective of university leadership

- **OARC Audit Planning Risk Assessment**
  - Approximately 175 auditable entities
  - Control Environment, Business Exposure, Public Sensitivity, Compliance Requirements, Information Technology & Management Reporting

Auditable Entities Risk Ranking

■ HIGH ■ MEDIUM ■ LOW

- **IT Risk Assessment**
  - Variety of systems and technologies to include emerging topics
  - Mapped to ISO 27002 standard
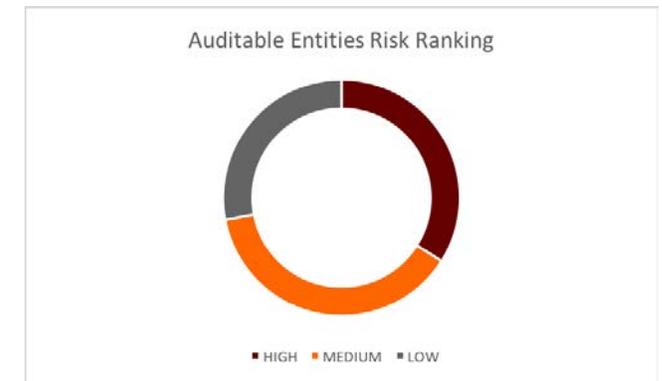
OVERVIEW – ANNUAL AUDIT PLAN

OARC has identified certain critical areas for inclusion in the core audit plan to ensure that adequate coverage is provided over a reasonable time. The critical areas for core audit plan inclusion are:

• Academic Units	• Human Resources
• Auxiliary Enterprises and Athletics	• Information Technology
• Campus Safety and Security	• Off-Campus Locations
• Enrollment Services	• Research
• Facilities and Operations	• Student Services
• Financial Management	

RISK-BASED AUDIT PROJECTS

The audit plan focuses on strategic, operational, financial, compliance, and IT risks. The audit plan will be reconfigured as needed when new topics requiring more immediate attention emerge.

Admissions	IT: Log Management
Athletics *	IT: Windows Server Security
ADA Compliance	Parking and Transportation
Center for the Arts	Physical Security
Center for International Research, Educ., & Development	Research: Continuity of Operations *
Chemical Engineering	Research: Human Subject Safety *
Facilities: Site and Infrastructure Development	Title IX Compliance
Graduate Education	University Scholarships and Financial Aid *
HR: Payroll *	Veterinary Teaching Hospital and Equine Medical Center
IT: Banner Applications	VCE Northern District
IT: Data Privacy (FERPA, GDPR, HIPAA, Domestic, etc.)	Virginia Tech Transportation Institute
	* Entity receives an annual audit on different operational components

POLICY COMPLIANCE AUDITS

OARC will continue its program of limited scope reviews of senior management areas. These surveys review major aspects of a department's administrative processes using internal control questionnaires and limited testing that provides broad audit coverage ensuring compliance with university policies on campus.

College of Natural Resources and Environment
College of Science
VTC School of Medicine (VTCSOM)
Vice President for Operations
Vice President for Diversity, Inclusion, and Strategic Affairs
Vice President for Information Technology

MANAGEMENT ADVISORY SERVICES

The nature and scope of management advisory service activities, developed through agreement with the client, add value and improve the university's governance, risk management, and control processes without the internal auditor assuming management responsibility.

Alignment of University-Level Research Institutes and Centers
Foreign Influence
Honors College

AUDIT RESOURCES

- Audit Plan – professional staffing of 13 FTEs
  - Relative seniority for audit staff prioritized when filling positions at the urging of the audit committee
  - New Director of Internal Audit – onboarding Fall of 2019

- Student employee program – hire 3-4 Virginia Tech students

- OARC's available resources are allocated as follows:
  - 59% - completion of audit projects and follow-up
  - 10% - accommodate management requests
  - 7% - conduct investigations into fraud, waste, and abuse allegations
  - 11% - professional development, internal quality improvement, and administration
  - 13% - compensated absences such as annual, sick, and holiday leave

ENTERPRISE RISK LANDSCAPE

ACADEMIC	CAMPUS CULTURE AND CLIMATE	EXTERNAL ENVIRONMENT	FINANCIAL	RESEARCH	UNIVERSITY OPERATIONS
Faculty & Staff Recruitment & Retention	Leadership & Governance	Legal & Regulatory	Federal & State Funds	Research Compliance	Expanding Physical Footprint
Global Engagement	Athletics	Socio-Political Environment	Tuition Dependency	Competitive Growth	Safety & Security
Evolving Pedagogy & Delivery	Title IX	Partners	Resource Management	Integrity & Conflicts of Interest	IT Security & Operations
Enrollment Management	Diversity & Inclusion	Alumni & Friends	Advancement	Restricted Research	Infrastructure & Facilities
Academic Quality	Student Experience	Accreditation	Endowment Income	Intellectual Property	Disaster Recovery & Business Continuity

REPUTATIONAL / COMPLIANCE

QUESTIONS?

VIRGINIA TECH

August 25, 2019

ERM & ICP
Program Updates

Sharon M. Kurek, CPA, CFE, MBA
Executive Director of Audit, Risk, and Compliance
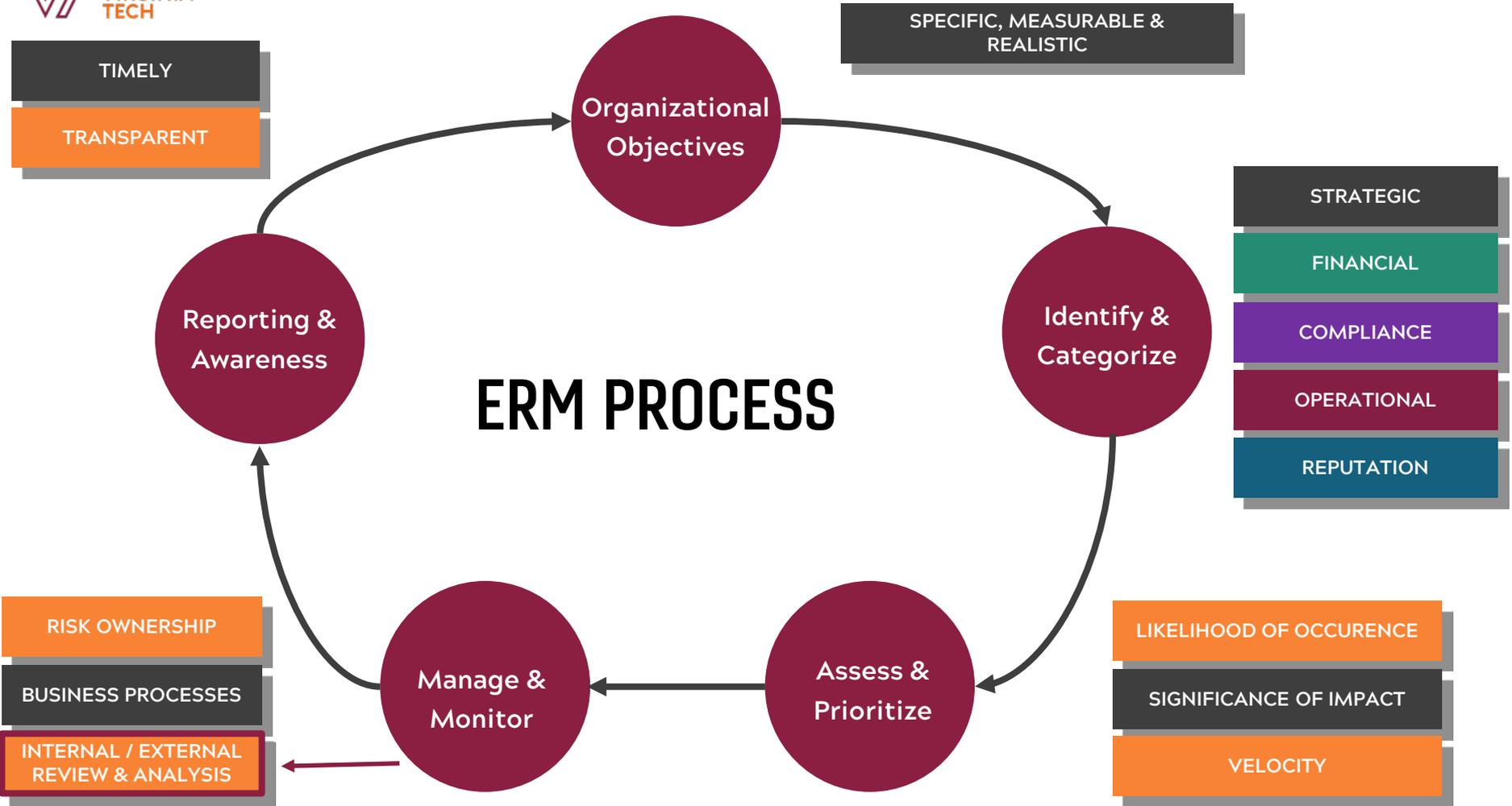
ERM SUMMARY

Update since June

- *Tabletop Exercise held June 18*
  - *Topic – Succession Planning*
  - *Risk Owner – Human Resources*
- *Planning next iteration of ERM for FY 2020*
- *Continuing to review Risk Snapshots with risk owners*

Going Forward

- *Update Risk Snapshots for each enterprise risk as needed*
- *Periodic Tabletop Exercises*
- *OARC Deep Dive of Risk Snapshots with Risk Owners*
- *Periodic Reporting to OARC and ERM Committees*
- *Risk Owners Periodically Brief BOV*
- *Refresh Enterprise Risk Landscape & Heat Map in 2020*

8 Elements of an Effective Compliance Program

High-level personnel exercising oversight

Written policies and procedures

Training and Education

Lines of Communication

Well publicized disciplinary guidelines

Internal compliance monitoring

Response to detected offenses

Perform periodic compliance risk assessments

ICP SUMMARY

Update since June

- The Compliance Advisory Committee (CAC) has shifted to quarterly meetings; the committee last met in mid-July

- OARC adjudicated over 400 recommended edits to the compliance matrix

- Distributed university-wide compliance owners began the compliance risk assessments process

- The external "Hokie Hotline" launched

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ICP SUMMARY

In Progress and Going Forward

- Distributed university-wide compliance owners will continue the risk assessment process in through September

- CAC meetings will continue quarterly as members focus on oversight of the ICP

- OARC and CAC exploring outreach opportunities for FY 2019-20

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QUESTIONS?

Enterprise Risk Landscape

ACADEMIC	CAMPUS CULTURE AND CLIMATE	EXTERNAL ENVIRONMENT	FINANCIAL	RESEARCH	UNIVERSITY OPERATIONS
Faculty & Staff Recruitment & Retention	Leadership & Governance	Legal & Regulatory	Federal & State Funds	Research Compliance	Expanding Physical Footprint
Global Engagement	Athletics	Socio-Political Environment	Tuition Dependency	Competitive Growth	Safety & Security
Evolving Pedagogy & Delivery	Title IX	Partners	Resource Management	Integrity & Conflicts of Interest	IT Security & Operations
Enrollment Management	Diversity & Inclusion	Alumni & Friends	Advancement	Restricted Research	Infrastructure & Facilities
Academic Quality	Student Experience	Accreditation	Endowment Income	Intellectual Property	Disaster Recovery & Business Continuity

REPUTATIONAL / COMPLIANCE

Enterprise Risk Heat Map
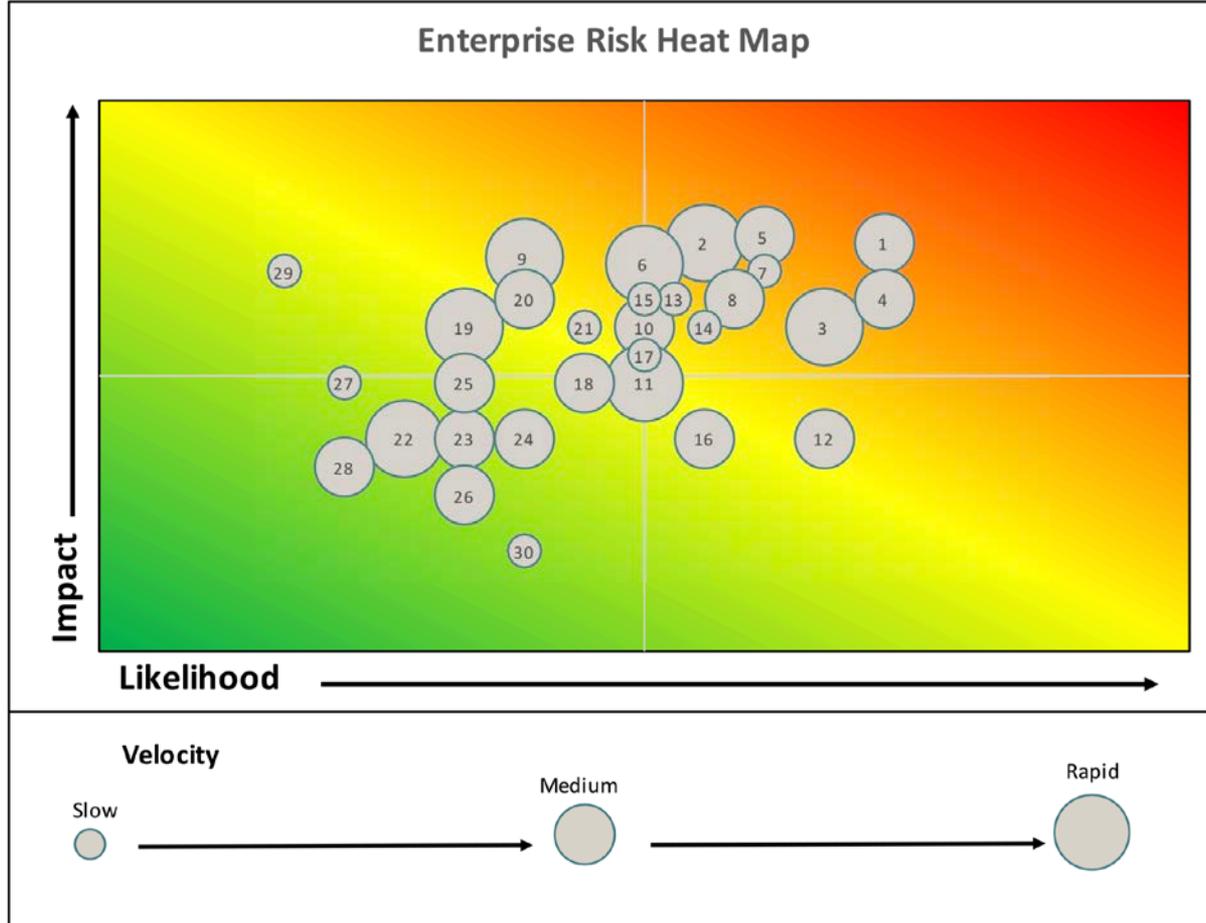
Graph Legend

Number	Risk
1	Federal & State Funds
2	Legal & Regulatory
3	Socio-Political Environment
4	Tuition Dependency
5	Leadership & Governance
6	Athletics
7	Expanding Physical Footprint
8	Faculty & Staff Recruitment & Retention
9	Safety & Security
10	Research Compliance
11	IT Security & Operations
12	Global Engagement
13	Resource Management
14	Competitive Growth
15	Advancement
16	Title IX
17	Infrastructure & Facilities
18	Partners
19	Integrity & Conflicts of Interest
20	Evolving Pedagogy & Delivery
21	Diversity & Inclusion
22	Disaster Recovery & Business Continuity
23	Enrollment Management
24	Restricted Research
25	Endowment Income
26	Student Experience
27	Academic Quality
28	Alumni & Friends
29	Accreditation
30	Intellectual Property

Feedback on ERM Program After Year 1

Discussion on ERM Program

- *Enterprise Risk Landscape - Top 30 Risks*

  - *Risk Identification and Assessment*

- *Periodic Tabletop Exercises*

- *Risk Snapshots developed by Risk Owners*

- *Periodic Reporting to OARC and ERM Committees*

- *Risk Owners Periodically Brief BOV*

- *Periodic Evaluations of ERM Program for Continuous Improvement*

Compliance, Audit, and Risk Committee Report

Faculty and Staff Recruitment and Retention

- Bryan Garey, Vice President for Human Resources

  August 2019 Board of Visitors Meeting

VT | HUMAN RESOURCES
VIRGINIA TECH.

Key takeaways

- Highlight faculty and staff recruitment/retention as a risk area for Virginia Tech.

- Review tabletop exercise and key themes.

- Share Human Resources actions to address risk.

- Discuss longer term challenges that Virginia Tech will face to source and retain much-needed talent to meet bold vision and strategy.

HUMAN RESOURCES
VIRGINIA TECH.

Risk statement: The university must be able to recruit, develop, and retain high performing faculty and staff to meet projected attrition and growth in the workforce accounting for changes in economic and demographic changes affecting the availability of new employees.

Why does the risk exist?
- Increasing retirements
- Low unemployment rate
- Demographic changes
- University growth vs. talent gaps/recruiting challenges

VT | HUMAN RESOURCES
VIRGINIA TECH

Snapshot of retirement increase

Employee Group		2013	2014	2015	2016	2017
AP/Staff	% of active	1.6%	1.5%	1.9%	2.0%	2.9%
	Number	81	74	94	101	146
TR Faculty	% of active	0.9%	1.1%	0.9%	1.7%	1.5%
	Number	23	28	23	43	39
Total	**% of active**	**1.4%**	**1.3%**	**1.5%**	**1.9%**	**2.4%**
	Number	**104**	**102**	**117**	**144**	**185**

- Over the last five years, there has been a steady increase in the number of employees who retired, specifically within the Baby Boomer population.

- Over the next five years, as many as 1,100 current university employees may retire.

- This increase plus turnover for other reasons could result in significant workforce shortages.

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VIRGINIA TECH.

Areas of workforce risk

- Academics:
  - Engineering
  - Computer science
  - Basic sciences
- Other occupations:
  - Finance
  - Information Technology
  - Administration
  - Trades
  - Lab support

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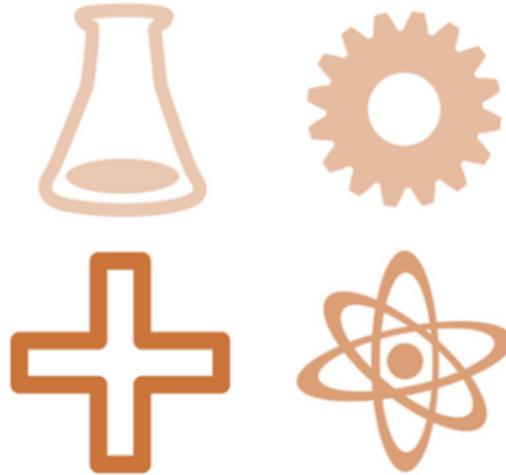
Tabletop exercise – June 18, 2019

- Cross-functional leaders discussed area of risk.
- Key themes that emerged:
  - Recruitment
    - Need for strong university employment brand.
    - Potential to leverage all locations to support the enterprise (remote work, as needed).
    - Focused effort around hard-to-fill positions (IT, Finance, Engineering, etc.).
  - Retention
    - Career development ladders/pathways needed.
    - Development opportunities though learning and experiences (OTJ).
    - Compensation review important.
  - Generational Turnover
    - How to adapt to millennial majority with transitioning boomer generation.

HUMAN RESOURCES
VIRGINIA TECH

Human Resources is focused on addressing these needs

Recruitment priorities:

- New Talent Acquisition and Onboarding team is emerging.
- New recruiting and onboarding system – PageUp.
  - Went live July 22.
  - Fully integrated experience from position posting through onboarding.
  - Improves applicant/candidate experience.
  - Adaptive design makes system mobile friendly.
  - Enhances brand management.
  - Focuses on creating consistent onboarding experience; provides a quick path to productivity for new faculty/staff.

HUMAN RESOURCES
VIRGINIA TECH

PageUp workflow – Fully integrated hiring and onboarding system

Banner
Integrated with PageUp

Position Description
- Specific job information
- Banner fields will be updated overnight
- Position available for posting within 24 hrs

Job Posting
- Collects candidate information
- Approval process with notifications and alerts

Recruitment
- Applicants can express interest in career types
- Disposition applicants throughout recruitment
- Book interviews through the system

Offer Card
- Information captured to merge into offer letter
- Information needed for reporting
- Requires an approval process

Offer Letter
- Delivered electronically
- Applicant logs into applicant portal to view and accept offer
- Following offer acceptance, applicant moves to onboarding portal

Onboarding Portal
- Hiring information/pre-employment checks completed in system
- VT ID number created
- Key onboarding processes done in system.

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HUMAN RESOURCES
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Human Resources is focused on addressing these needs

Compensation and Talent Development priorities:

- New directors and teams
- Minimum pay initiative, supplement – announced May 2019
- Market analysis and pay structure (IT and HR, to start)
- Job structure project, comp review and career ladders

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Challenges will continue face the university

- Cultural

- Environmental

- Generational

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Compliance, Audit, and Risk Committee Report

Faculty and Staff Recruitment and Retention

- Bryan Garey, Vice President for Human Resources

  August 2019 Board of Visitors Meeting

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Virginia Tech

August 25, 2019

The Athletics Compliance Landscape

Angie Littlejohn

Senior Associate Athletic Director, Internal Operations

CHANGES TO THE DIVISION 1 INFRACTION PROCESS

Independent Accountability Resolution

✓ Balances expertise necessary to efficiently and effectively evaluate and process select complex infractions cases.

✓ Independence and separation from standard infractions process.

Effective Aug. 1, 2019

CASE

A school, the NCAA vice president of enforcement, or the Committee on Infractions chair requests that a case be referred for independent review.

INDEPENDENT INVESTIGATORS AND DECISION-MAKERS

Independent Accountability Oversight Committee

OVERSEES THE PROCESS

Infractions Referral Committee

Reviews and confirms complexity of case

Complex Case Unit

Investigates if/as warranted

Independent Resolution Panel

Reviews case to determine outcome

CHANGES TO THE DIVISION 1 INFRACTION PROCESS

Stronger Accountability, Penalties

The increased penalties apply to both the COI process and the new independent process.

5 YEAR BAN
Maximum postseason ban (five years).

! LIFETIME
Maximum show-cause order (lifetime).

>1 SEASON
Head coach restrictions that span more than one season.

OFFICIAL AND UNOFFICIAL VISITS
Full year of restrictions on unofficial and official visits.

REVENUE
Loss of revenue sharing in postseason competition.*

*May also determine equivalent fine under current authority.

OUTSIDE INCOME IN NCAA DIVISION I MEN'S BASKETBALL

Effective Immediately

Outside Income

Athletics Staff Member

President/Chancellor

>$600

REPORTING OUTSIDE INCOME

OUTSIDE INCOME IN NCAA DIVISION I MEN'S BASKETBALL

REPORTING OUTSIDE INCOME

Examples of athletics-related income or benefits include:

Income from endorsements	Consultation contracts with apparel companies	Equipment manufacturers	Television and radio programs	Employment by or ownership of sports	Payment for guest speaking engagements	Housing or transportation benefits	Control or management of a foundation

REQUIREMENT TO REPORT

All full-time or part-time athletics staff members who receive greater than $600 in athletics-related income from an outside source must report the earnings to the president or chancellor on an annual basis.

VIRGINIA TECH COMPLIANCE STAFF

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BRIDGET BRUGGER-McSORLEY

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MEGAN GRIESEMER

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WE ARE HERE TO HELP YOU!!