

BOARD APPROVED
FEBRUARY 9, 2018
JANICE INDRUTZ
CORPORATE SECRETARY

A&I 2/9/18
BT 2/9/18



INTERNAL AUDIT OFFICE

January 29, 2018

To: Members of the Board of Trustees
Fr: Peg Fish, Director of Audits
Re: Approval of 2017 Annual Report of the Director of Audits

On behalf of the Internal Audit Office, the calendar year 2017 annual report, reflecting the overall results of audit activities for the period, is enclosed. This report demonstrates accountability to the Board of Trustees and that the office is operating in accordance with the *Bylaws of the Trustees of Purdue University*.

Internal Audit is committed to the professional conduct and quality of its work, productive use of its resources, and the professional competence of its staff. Appendix A, the Internal Audit Charter, reflects these commitments.

Internal Audit has recognized stakeholders' expectations and priorities, and has adapted to changes in technology, legislation, and organizational strategic priorities. Institutional requests have been met and broad audit coverage provided.

The accomplishments would not have been possible without the dedication and professionalism of the staff. The Internal Audit Office also wishes to acknowledge the vision and direction of the Board of Trustees, the President, executive leadership, and the management teams throughout the University.

Enclosure

c: President Mitch Daniels
Treasurer Bill Sullivan
Provost Jay Akridge
Assistant Treasurer Jim Almond
Corporate Secretary Janice Indrutz
Legal Counsel Steve Schultz

A flexible program of work, spanning various institutional units and activities, was delivered identifying key internal controls that aid in risk mitigation. All audits were performed in accordance with the Institute of Internal Auditor's *International Standards for the Professional Practice of Internal Auditing (Standards)*. A risk-based approach was used to determine the scope of each audit, and all significant findings were reported. Cooperation was received from management in all audits conducted.

Audit Professionals

Eight staff are recognized for their contribution, dedication, and professionalism in providing quality audit services, flexibility, and maximum coverage of the 2017 audit plan.

- Audit Manager **Jeff Tatum**, CIA
 - Auditor **Alex Quinn**, CPA
 - Associate Auditor **Josh Sterrett**
- Information Systems Audit Manager **Robert Oxender**, MS in Computer and Information Science, CISA, CISSP, CPA
 - Audit Specialist **Julie Rieser**
 - Information Systems Auditor **Dan Vukobratovich** (hired August 2017)
- Principal Auditor, Data **Jane White**, MBA, CIA
- Principal Auditor, Special Projects **Wendi Johnston**, CRISC

Staff met all continuing education requirements per the *Standards*. Two individuals are pursuing professional designations.

Allocation of Professional Audit Resources

Staff delivered 12,099 hours (83%) of direct audit work, 807 hours (6%) in support of the anonymous reporting program, external audits, and enterprise risk management initiatives, and 1,630 hours (11%) in office initiatives, professional staff development, and research.

Audits Completed or In-Process

Seventy-two (72) audit reports were issued with 5 audits in-process at year-end. Nineteen (19) of these, totaling 1,517 hours, were not planned. The hours dedicated to follow-up are included in the total 12,099 hours of direct audit work; however, these activities do not typically result in an audit report so are not included in the audit report count.

Campus Coverage

Fort Wayne* Audit Coverage (1,152 hours, 9.5%, 7 reports issued)

- Academic and Student: scholarship processes
- Financial: gift operations and foundation financial statements
- Information Technology: web application vulnerability management
- Regulatory: child care operations and professional services contract
- Safety and Facilities: emergency communications infrastructure

Northwest* Audit Coverage (2,092 hours, 17.3%, 13 reports issued)

- Academic and Student: system application controls and processes for admissions, financial aid, and federal aid recipient withdrawals (classified as information technology based on application focus)
- Financial: general ledger account structure, program specific computer purchases, and student fees
- Information Technology: active directory, change management, data center and network physical security, web application vulnerability management
- Regulatory: child care operations
- Research: contract review
- Safety and Facilities: emergency communications infrastructure

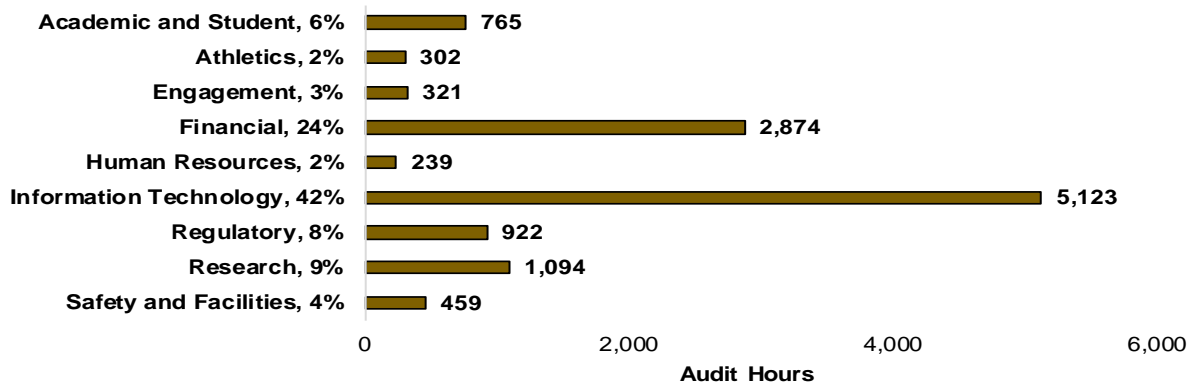
West Lafayette* Audit Coverage (8,855 hours, 73.2%, 52 reports issued and 5 audits in-process)

- Academic and Student: speech and audiology clinic operations, and federal aid recipient withdrawals (classified as regulatory based on primary focus)
- Athletics: ticketing system application controls, football ticket sales, and basketball ticket sales
- Engagement: extension offices (3 counties)
- Financial: cash and investment validations (3), contract administration (4), inventory valuation, room and board, information technology purchases, operational revenue (6), foundation financial statements (2), general ledger structure, student fees
- Human Resources: hiring, leave reporting, time recording, and recruitment roles and workflow
- Information Technology: administrative and research data center security, backup security, college of health and human sciences infrastructure, data analytics platform security, data integrity headcount, firewall security, enterprise asset management design and mobile interface controls (2), fax security, logging, network administration, restricted research data, secure storage, and SMARTcomputing configuration management
- Regulatory: conflict of interest (4), procurement delegations, and study abroad
- Research: cyber incident reporting requirements, and self-inspections(3)
- Safety and Facilities: emergency communications infrastructure

*Enterprise-wide systems and associated processes were reflected in West Lafayette coverage

In summary, for all locations and based on the primary objective of each audit, shown are the metrics based on higher education risk categories. Given new system implementations, and the focus of application controls, data security, and infrastructure, the Information Technology category continues to be the largest.

Audit Hours by Risk Category



Comparison of the 2017 Annual Report to the 2017 Audit Plan

Fifty-eight (58) of the 75 planned audits were completed or in-process at year-end. The disposition of the 17 audits planned, but not started, is as follows:

- Combined with other 2017 audits and modified scope accordingly: 4
- Evaluated, scope modifications made, and moved to the 2018 audit plan: 13

Anonymous Reporting Activity

Purdue is committed to providing an environment in which individuals may report suspected fraud, waste, or abuse of University assets, as well as regulatory noncompliance in a simple, anonymous way. An external firm manages the intake of information via telephone (866) 818-2620, or internet www.purdue.edu/hotline. This information is then provided to Internal Audit for appropriate action.

One hundred and thirty (130) reports were received via the program during calendar year 2017, with 23 duplicated. Of those, 124 were referred to other University departments for action, five were analyzed by the Internal Audit Office, and one was not sufficiently detailed to allow for review. Twenty-three percent (23%) were referred to Human Resources, while 19% went to Ethics and Compliance. Eighty percent (80%) of the contacts were received via the internet and 20% by phone.

Appendix A Internal Audit Charter

Mission

The Internal Audit Office is dedicated to aiding the University in accomplishing its strategic and operational initiatives by providing independent, objective assurance, and consulting services with respect to evaluating risk management, control, and governance processes.

Role

The Internal Audit Office serves as a resource to examine and evaluate University activities in service to the Board of Trustees and management. Internal Audit has no direct operating responsibility or authority for management processes, internal controls, or any of the activities or operations it reviews; thereby, maintaining its independence and objectivity.

Purpose and Responsibilities

The purpose of the Internal Audit Office is to determine whether the University's control, risk management, and governance processes, as designed and implemented by management, are adequate and functioning to ensure that:

- Strategic objectives and plans are achieved
- Risks are appropriately identified and managed
- Interaction with various governance groups occurs as needed
- Quality and continuous improvement are promoted in the University's control processes
- Resources are acquired economically, used efficiently, and are adequately protected
- Financial, managerial, and operational information is accurate, reliable, and available
- Actions are in compliance with University policies and standards, and applicable laws and regulations
- Significant legislative and regulatory issues impacting the University are recognized and appropriately addressed
- Information technologies are integrated and aid in accomplishing University objectives

Responsibilities include:

- Developing a flexible audit plan utilizing both a risk-based methodology (risk-centric approach) and an institutional objective methodology (objective-centric approach)
- Ensuring inclusion of resources for unplanned audits when developing the audit plan
- Allocating resources, setting timelines, determining scope of work, and applying the techniques required to accomplish the audit objectives
- Communicating audit results, assessing management responses, and conducting follow-up accordingly
- Maintaining sufficient knowledge, skills, and other competencies to achieve the engagement objectives
- Administering the anonymous reporting program
- Considering the scope of work of the external auditors or regulators for purposes of providing optimal audit coverage to the institution
- Monitoring, on an ongoing basis, the performance of the internal audit activity

All audit activity is governed by the mandatory guidance of the Institute of Internal Auditor's (IIA) *International Professional Practices Framework*, which includes the definition of Internal Auditing, the Code of Ethics, and the *International Standards for Professional Practice of Internal Auditing*.

Reporting

The Internal Audit Office is structured in accordance with *The Bylaws of the Trustees Article IV, Section 6*:

"The Treasurer of the Corporation shall maintain an internal audit office independent of any other office of the Corporation or of the University. The Director of Audits shall submit to the Board annually a written report on the work of the internal audit office for the preceding

calendar year. In addition, the Director of Audits, prior to the presentation of the written annual report, shall make an annual oral presentation concerning the work of the internal audit office to the Audit and Insurance Committee, which shall be made in the presence of the Treasurer. Immediately following the completion of each oral presentation, the Director of Audits shall confer with the Audit and Insurance Committee, outside the presence of the Treasurer or any other officer of the University on any subject germane to the area of responsibility of the internal audit office. The written annual report to the Board shall be made at a stated meeting selected by the Audit and Insurance Committee, but in no event shall it be deferred beyond July 1 of each year without the consent of the Chairman. In addition, at any time when in the judgment of the Director of Audits circumstances warrant or in response to a request from the Chairman of the Audit and Insurance Committee, the Director of Audits shall make a written or oral report to the Chairman of the Audit and Insurance Committee without informing the Treasurer or any other University officer. Subject to the foregoing, the Treasurer shall attend the meetings of the Audit and Insurance Committee and serve as its Secretary and keep a record of its proceedings.”

Authority

The Internal Audit Office provides system-wide audit coverage and has unrestricted access to all University functions, records, property, and personnel, subject to state and federal law.