

**A CASE STUDY OF THE VOLUNTARY ADOPTION OF SOX-INSPIRED REFORMS
AT THE UNIVERSITY OF PITTSBURGH**

by

Theresa Phipps

Bachelor of Science, Wheeling Jesuit University, 2001

Master of Business Administration, Wheeling Jesuit University, 2002

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This dissertation was presented

by

Theresa Phipps

It was defended on

June 21, 2018

and approved by

Dr. Cindy Tananis, Associate Professor, Department of Administrative and Policy Studies

Dr. John Weidman, Emeritus Professor, Higher and International Development Education

Mr. Thurman Wingrove, Controller, University of Pittsburgh

Dissertation Advisor: Dr. Maureen McClure, Associate Professor, Department of

Administrative and Policy Studies

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Theresa Phipps, EdD

University of Pittsburgh, 2018

In enacting the Sarbanes-Oxley Act of 2002 (SOX), Congress established sweeping auditing and financial regulations for public companies in order to prevent fraudulent accounting activities. While far-reaching in many respects, SOX also has limitations in its scope. Among those is that SOX applies only to publicly traded corporations. However, the accounting practices that SOX seeks to regulate are shared by nonprofit institutions of higher education, which are also highly susceptible to the damaging consequences of fraud. Much like publicly traded corporations, nonprofit institutions of higher education also confront issues of auditor independence, corporate responsibility, enhanced financial disclosure, and accountability for financial results. But because implementation of SOX reforms, particularly those contained in Section 404, which strengthens internal control procedures, is resource-intensive and very costly, many nonprofit colleges and universities have not voluntarily adopted the full slate of SOX requirements.

Utilizing a case study method, I gained the following insights into the results of voluntary implementation of SOX Sections 301 (requiring companies to set up procedures for employees' confidential, anonymous submission of concerns about questionable accounting and auditing), 302 (requiring the principal executive and financial officers of a public company to certify in their company's annual and quarterly reports that such reports are accurate and complete and that

they have established and maintained adequate internal controls for public disclosure), and 404 (requiring companies to annually test the effectiveness of internal controls over financial reporting and the external auditors to audit the internal controls) at the University of Pittsburgh. First, SOX-inspired reforms enhanced a culture of accountability and strong control environment. Second, the costs of implementing SOX decreased over time. After the initial implementation, maintenance and monitoring of the established internal controls does not require as many employees. Third, Pitt developed tools that allowed the University to gain assurance that internal controls were working properly by requiring department heads and central personnel to take ownership of their departments' internal controls.

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1.0 INTRODUCTION

1.1 PROBLEM STATEMENT

My problem of practice examines the value of enhanced anti-fraud measures, stronger internal controls, and more robust oversight at nonprofit colleges and universities. In 2015, the Government Accountability Office (GAO) issued a report recommending that the Department of Education strengthen oversight and enhance the accreditation process for higher education institutions (Government Accountability Office, 2015). Several recent instances of fraud at for-profit institutions of higher education, such as False Claims Act litigation brought by private parties, the United States, and several states against Education Management Corporation (EDMC) confirm the very real fraud risks at higher education institutions (Moore, 2015). Research suggests that nonprofit higher education institutions are also highly susceptible to the damaging consequences of fraud (NACUBO, 2003). Fraud at universities damages morale, jeopardizes the reputation of the university, and raises questions about its fiduciary duties regarding funds provided by donors, government agencies, students, and parents (ACFE, 2014).

The most significant modern anti-fraud reform is the Sarbanes-Oxley Act of 2002 (SOX), which imposes enhanced governance, accountability, and transparency requirements on publicly traded companies (Louwers et al., 2015). Formal penalties for non-compliance with SOX can include fines, removal from listings on public stock exchanges, and invalidation of D&O

insurance policies. Under the Act, CEOs and CFOs who willfully submit an incorrect certification to a SOX compliance audit can face fines of \$5 million and up to 20 years in jail (Louwers et al., 2015). Because they are not publicly traded companies, nonprofit institutions of higher education are not subject to SOX, and they are largely unregulated except for accreditation processes (Government Accountability Office, 2015). Despite being outside the legal reach of SOX, some nonprofit organizations have chosen to adopt several provisions of SOX voluntarily. For instance, some nonprofit organizations have chosen to implement requirements for independent and competent Audit Committees, codes of ethics, whistleblower provisions, certification of financial information, and audit of internal controls (Iyer & Watkins, 2008). An audit committee is an operating committee of the board of directors and is charged with oversight of financial reporting and disclosure (Phillips et al., 2016). A code of ethics comprises the standards necessary to promote "honest and ethical conduct; full, fair, accurate, timely and understandable disclosure in periodic reports"; and "compliance with applicable governmental rules and regulations" (SOX ACT). Internal controls are "actions taken to promote efficient and effective operations, protect assets, enhance accounting information, and adhere to laws and regulations" (Phillips et al., P. 211, 2016). By following the spirit of the law, even when the letter of the law does not formally apply, nonprofit institutions are implementing anti-fraud measures consistent with the intent of SOX, even if the specific statutory requirements for publicly traded institutions do not apply.

Three of the key SOX reforms – those found in SOX Sections 301, 302, and 404 (described in the following sections) – are broadly applicable and are not unique to publicly traded companies. The reforms in those three sections apply to, and could be implemented by, nonprofit colleges and universities with some modification and clarity.

The National Association of College and University Business Officers (NACUBO), in a November 2003 report on best practices for institutions of higher education, recommended that higher education institutions implement SOX. Specifically, NACUBO detailed how colleges and universities could address SOX-related issues, such as auditor independence, corporate responsibility, enhanced financial disclosures, accountability, and certification of financial results by senior management and Audit Committees. This general checklist outlined how nonprofit colleges and university could adopt SOX-inspired reforms. Because the SOX requirements were tied specifically to the organizational structure of publicly traded companies, the NACUBO recommendations were significant to Pitt's voluntary adoption of SOX Sections 301, 302, and 404.

1.1.1 Section 301: Whistleblower protection

Section 301 requires the establishment of a confidential complaint mechanism, such as a hotline for employee concerns about accounting, internal controls, or auditing matters (NACUBO, 2003). Nonprofit higher education institutions could, with relative ease, implement this reform. In fact, the National Association of College and University Business Officers (NACUBO) recommends that colleges and universities publicize the complaint mechanism and have the Audit Committee periodically review it (NACUBO, 2003). Common complaint mechanisms include anonymous telephone hot lines or anonymized email (NACUBO, 2003).

1.1.2 Section 302: Certification of financial statements

Section 302 requires the chief executive officer and the chief financial officer to assert that the financial statements have no material misstatements or omissions and that those officers have evaluated “disclosure controls and procedures” (NACUBO, 2003, p. 2). Specifically, Section 302 of the Act states that the key company officials must certify the financial statements. That is, the company CEO and CFO must sign a statement indicating the following: they have read the financial statements, they are not aware of any false or misleading statements (or any key omitted disclosures), and they believe that the financial statements present an accurate picture of the company’s financial condition (Louwers et al., 2015). This 302 requirement could also be implemented by colleges and universities. NACUBO suggests that large decentralized institutions should consider requiring Section 302 statements by business unit leaders responsible for financial results (NACUBO, 2003).

1.1.3 Section 404: Internal controls

SOX Section 404 seeks to enable organizations to identify and address financial disruptions in a timely manner. To that end, it mandates that all publicly traded companies establish internal controls and procedures for financial reporting and that they document, test, and maintain those controls and procedures to ensure their effectiveness (Louwers et al., 2015). The term “internal control” is commonly used in accounting but is also important in SOX contexts. Generally, the term “internal control” refers to a method or procedure that an organization implements to ensure the integrity of financial and accounting information (Louwers et al., 2015). Internal controls can be classified as *preventative* or *detective*. Preventative internal controls are proactive

policies and procedures that seek to ensure that certain events, such as fraud, do not occur (Louwers et al., 2015). An example is a policy that requires receipts for business travel expenses. Detective internal controls, in contrast, are designed to compensate for gaps in or limitations of the preventative internal controls; those are typically more targeted and more probing (Louwers et al., 2015).

1.2 SIGNIFICANCE OF THE STUDY

It is management's responsibility to ensure an organization complies with the requirements of Sections 302 and 404 and other requirements of the Act; this responsibility cannot be delegated or abdicated. Those sections are the most challenging because unlike other sections of SOX which translate readily from the context of publicly traded companies to non-profit colleges and universities, some sections of SOX were tailored more closely to the structure of publicly traded companies. This paper is a case study of Pitt's decision to take on implementation of those three sections of SOX that translate less clearly to the nonprofit university context.

In the context of SOX, which seeks primarily to prevent publicly traded companies from preparing fraudulent financial statements, the term internal control has a specific regulatory understanding that is expressly tied to financial reporting: Internal control is a process, effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in the following three categories: reliability of financial reporting, effectiveness and efficiency of operations, and compliance with applicable laws and regulations of company assets that could have a material effect on financial statements (Louwers et al., 2015).

Given the breadth of even the SOX-specific definition of the term “internal controls,” it is apparent that, by requiring the establishment of internal controls, Section 404 imposes a significant proactive obligation for publicly traded companies to prevent fraud in their financial statements. Section 404 further requires monitoring and maintenance of internal controls related to the company’s accounting and financial statements by imposing heightened standards for internal controls, for instance, by requiring documentation and testing of those controls (NACUBO, 2003). These stringent requirements are required of publicly traded companies as a means of protecting investors, enhancing transparency, and enhancing the control environment.

Section 404 is a dramatic, resource-intensive reform, and not one that can be implemented “on the cheap.” The process of documenting, testing, and maintaining internal controls requires a large amount of personnel and time. Nonetheless, it appears to be a potent anti-fraud measure. Although nonprofit colleges and universities do not have investors, as do publicly traded corporations, they certainly have stakeholders whose interests they need to protect by preventing fraud. The question presented for nonprofit colleges and universities is whether the voluntary application of Section 404, with its documentation and testing of the control environment, is worth the time and resource demands that it entails. Answering that question prompts several sub-inquiries, such as:

- Is the risk of fraud to colleges and universities as real as the risks that confront investors in publicly traded companies?
- Are the costs of implementing Section 404 more manageable in the context of higher education?
- Do the benefits of Section 404 reforms outweigh the costs for nonprofit colleges and universities?

The answers to these questions will determine the zeal with which nonprofit colleges and universities voluntarily implement Section 404 reforms. It is noteworthy that the National Association of College and University Business Officers (NACUBO) recommends that colleges and universities implement Section 404 by documenting and evaluating internal controls over a planned period of time (NACUBO, 2003). Against that backdrop, Section 404 crystallizes the real question for my problem of practice: In the context of nonprofit higher education, are the benefits of voluntarily implementing SOX worth the cost?

In assessing the burdens, it is important to recognize that not all SOX compliance costs will incur new costs for nonprofit colleges and universities. While compliance with SOX generally, and Sections 301, 302, and 404 specifically, is not required for nonprofit higher education institutions, many nonprofit colleges and universities already have foundational policies in place that demonstrate some degree of commitment to a *strong control environment*. A control environment embodies “the attitude that people in the organization hold regarding internal controls. It is influenced by the policies that a company’s board of directors and senior managers set, their demonstrated commitment to integrity and ethical values, the character of the people they hire, and how they evaluate others” (Phillips et al., 2016, p. 211). Specifically, control environments set the “tone at the top” of an organization, influencing the control consciousness of its people (Louwers et al., 2015). It is the foundation for all other components of internal controls (Louwers et al., 2015). For instance, nonprofit colleges and universities that receive federal funding must adhere to auditors’ independence, which is also a SOX requirement (NACUBO, 2003). Also, nonprofit colleges and universities usually have a Board of Directors/Audit Committee that provides a foundation for implementing certain SOX-like reforms that require each committee member to be a member of the board and to be independent

(i.e. not receiving compensation from the company) (Louwers et al., 2015). In addition, nonprofits are encouraged to require their CFOs to certify the organization's financial statements in order to comply with Section 302 of the Act (NACUBO, 2003).

From this context, this problem of practice explores the value in the potential voluntary adoption of the reforms contained in SOX Sections 301, 302, and 404 at nonprofit colleges and universities. To explore this question, this paper relies on case study methodology to describe the experience of Pitt's voluntarily implementing reforms inspired by SOX, specifically Sections 301, 302, and 404. By following the spirit of the SOX reforms, Pitt fulfills the intent of SOX while availing itself of some implementation flexibility by not necessarily adhering to every specific statutory requirement applicable to publicly traded institutions.

1.3 PURPOSE OF THE STUDY

Nonprofit colleges and universities are entrusted with great resources and equally great responsibilities for the discovery, dissemination, and preservation of knowledge. That trust extends to the point that there is little financial regulation of nonprofit institutions of higher education despite the fact that the risk of fraud applies universally to all organizations (Coates, 2007). Without any substantial regulatory requirements to minimize fraud risks, institutions of higher education still have incentives to prevent fraud, such as to avoid the reputational injury associated with fraud. The reforms in SOX could serve as a blueprint for enhanced internal control policies and procedures at nonprofit colleges and universities (NACUBO, 2003). However, the voluntary implementation of SOX-inspired reforms would not be effortless, and it may require resources or impose additional burdens on nonprofit colleges and universities that

outweigh the benefits of a strong control environment. The key question, then, is one of relative value: Do the benefits of implementing SOX-like reforms outweigh the burdens of doing so for nonprofit institutions of higher education? The purpose of this study is to begin answering that question by detailing the SOX-inspired reforms at Pitt, which voluntarily implemented SOX-like reforms modeled after the requirements of Sections 301, 302, and 404. Central to understanding Pitt's voluntary adoption of SOX-inspired reforms is Pitt's motivation for doing so: Was it to establish a strong control environment with a generalized aspiration of effectuate savings and preservation reputation, or did Pitt have a more targeted purpose, such as to avoid or reduce certain known or common types of fraud (such as asset misappropriation) or to minimize fraud of a certain magnitude? In the end, by examining both the reforms that Pitt voluntarily implemented as well as the reasons that Pitt selected those reforms, this paper seeks to identify and explain the key "lessons learned" from Pitt's experience.

By already having an internal audit department, Pitt was able to use the internal audit department's skill set to complete their voluntary adoption of SOX. This is advantageous because some universities that wanted to comply with SOX had to create an internal audit department to do the work for SOX compliance (Goins et al., 2009). According to Pitt's Internal Audit Department website, their mission is

to provide independent, objective assurance and consulting services designed to add value and improve the University's operations. Internal Audit helps the University to accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, internal control and governance processes. Internal Audit will assist University Management and the Audit Committee of the Board of Trustees in identifying, avoiding, and mitigating risks. The Internal Audit Department

provides valuable support in maintaining the public's confidence by performing independent and objective reviews, and reporting to the Audit Committee and responsible administrative and academic officers on their findings so that corrective actions or enhancements can be initiated. (Pitt's Internal Audit Website)

With respect to the anonymous hotline requirement in Section 301 for employees to report fraud concerns, Pitt contracted with a company to operate such a fraud hotline. The Internal Audit department manages the complaints, tips, and comments that the hotline receives. If necessary, the Internal Audit department follows up on the complaints or tips either themselves or by referring issues to the appropriate unit such as Human Resources or the General Counsel, depending on the nature of the complaint.

Pitt fulfills Section 302 through the SOX Project Management Department (SOX Department), which was created by the Controller's Office in January 2005 to implement SOX throughout the University. In furtherance of Section 302, the SOX Department coordinates and reviews the SOX Section 302 questionnaire each year by requiring each dean or senior level official to review and sign off on 25 internal control questions related to his or her department. Specifically, the SOX Department sends out 59 questionnaires for certification in total, 44 to decentralized responsibility centers and 15 to departments managed by the CFO's area. These certified responses are then reviewed by the Chancellor, CFO, and Controller for their approval and sign-off on the audit representation letter. Essentially the Chancellor, Controller, and CFO attest to the financial results of the institution in order to comply with Section 302. In sum, Pitt asks the deans and senior administrators (including any of the officers involved in non-academic areas) to review the key internal controls within their departments and to verify the internal control documentation and compliance with those policies and procedures.

Pitt has also adopted compliance measures inspired by the most far-reaching provision of SOX – the requirement under Section 404 that senior officers of public companies certify the adequacy of the internal control systems before those systems are subjected to external audit (NACUBO, 2003). Responsibility for implementing Section 404 rests primarily with the SOX Department, using a top-down process (see Figure 1) to identify the key controls (See Exhibit A) in coordination with other offices. Section 404 compliance began with the identification of key controls associated with the key central business processes the Controller’s Office early in the implementation of SOX. Next, the SOX Department documented these controls in each department and created flow charts to document the procedures for those key internal controls. Then, on a rotating basis the SOX Manager tests that the key controls are working properly. Finally, the Internal Audit reviews the testing done by the SOX manager and signs off on the adequacy of internal controls.

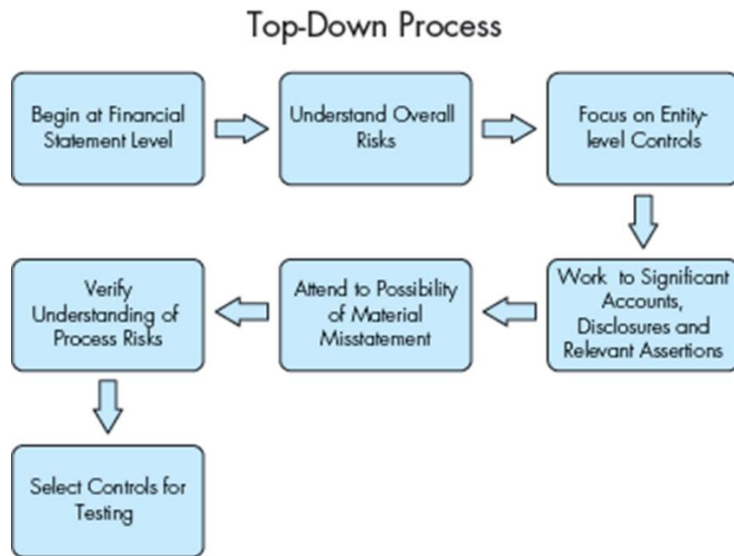


Figure 1. Top-Down Process for Identifying Key Controls (Louwers et al., 2015)

Pitt’s experience in voluntarily implementing Section 404 is particularly instructive regarding the assessment that a nonprofit college or university may make as to the benefits and

burdens of adopting SOX-like reforms. Pitt did not fully implement Section 404, which mandates an *external* audit of certified internal control systems; instead it requires Pitt's *Internal Audit* Department to test and certify the internal control system. Pitt implemented the audit process for internal controls, but it did so internally, as opposed to an external audit. The external audit of internal controls would require a major institutional and financial commitment to establish and document business processes that reinforce solid internal controls, plus the follow-up required to ensure that controls are working properly (NACUBO, 2003). Pitt's experience demonstrates the flexibility that nonprofit institutions of higher education have in tailoring an enhanced control environment based on their assessment of the burdens associated with the implementation of SOX.

Pitt's voluntary implementation of reforms inspired by SOX Sections 301, 302, and 404 could be useful for other nonprofit institutions of higher education who wish to bolster their control environments.

1.3.1 Inquiry questions

This quest for insight led to the following research questions.

1. Can a nonprofit university successfully apply SOX sections 301, 302, and 404?
2. What were the burdens associated with Pitt's voluntary implementation of those SOX-modeled reforms?
3. What benefits to the University does Pitt attribute to its voluntary implementation of reforms inspired by SOX Sections 301, 302, and 404?

1.4 IMPLICATIONS FOR POLICIES AND PROCEDURES

As an EdD student, I was charged with identifying a problem of practice related to my field of experience, and then with generating new and useful knowledge to address that problem (CPED, 2010). I chose to examine the need for anti-fraud measures, stronger internal controls, and more robust oversight at nonprofit colleges and universities for several reasons. As an accounting faculty member at Slippery Rock University (SRU) in the Pennsylvania State System of Higher Education (PASSHE), I am vested in the governance and success of SRU. With my background in both public- and private-sector accounting, along with my practical experience in aiding SOX compliance, I have a strong interest in studying Pitt's voluntary implementation of SOX-inspired reforms to offer as a guide for other nonprofit colleges and universities. My goals are to detail Pitt's experiences in this multi-year endeavor so that Pitt's experience may enlighten the decision-making of other nonprofit colleges and universities as they consider fraud prevention reforms.

1.5 DEMONSTRATION OF EXCELLENCE

The second section of the dissertation in practice is the demonstration of scholarly practice. For this requirement, I presented my case study at the Pennsylvania Economic Association (PEA) Conference at Pennsylvania State University-Altoona. The Pennsylvania Economics Association is a professional association of economists in Pennsylvania and neighboring states.

The annual meeting consisted of approximately 70 papers presented and discussed at the conference. The conference was organized by related business disciplines – accounting, finance,

law, management, and marketing. I gave a 30-minute presentation and received valuable feedback. It helped to present at an Economics conference because participants are aware of SOX but do not know the explicit details. I had to explain the concept to non-accountants, which shed light on issues that need more clarification in my dissertation.

1.6 METHODS

Through interviews, observation, and document review, I prepared a case study that outlines Pitt's process of implementing SOX-inspired requirements for Sections 301, 302, and 404. A case study is the in-depth investigation of one unit (Gay et al., 2012). It is the appropriate research technique here because I wanted to answer specific questions that would in themselves be useful to other nonprofit colleges and universities. Those inquiries included why and how Pitt implemented SOX Sections 301, 302, and 404. This case study focused on qualitative data collection techniques including observation, interviewing, written sources of data, and non-written sources of data (Gay et al., 2012). This case study is considered a descriptive case study because the end result consists of a narrative with thick description of how Pitt implemented SOX Sections 301, 302 and 404 (Gay et al., 2012).

I researched how and why Pitt implemented SOX as a potential model for voluntary adoption at other nonprofit colleges and universities. Data included interviews, observation of control testing, internal control document review, and analysis of the burdens and benefits of implementation. However, it could be too costly for many nonprofit colleges and universities to follow Pitt's lead, and the ultimate question is whether the benefits outweigh the burdens.

As a graduate student at Pitt, I learned through word of mouth that Pitt was voluntarily implementing SOX. I then contacted Pitt's Controller, who graciously agreed to meet with me to discuss my interest in Pitt's implementation of SOX requirements.

When researching Pitt's voluntary implementation of reforms modeled on Sections 301, 302, and 404, I wanted to know if it was possible to implement SOX at a nonprofit university and why an institution would choose to do so. For this reason, *it is important to understand Pitt's motivation – was it to avoid fraud, to establish a strong control environment, and/or to effectuate monetary savings. In addition, what were the costs or burdens associated with implementation?* Similarly, it was important to understand how Pitt implemented SOX, specifically the reforms it made that were inspired by Sections 301, 302, and 404. Then the process and method could serve as a concrete and specific example of how other nonprofit colleges and universities could voluntarily implement reforms based on Sections 301, 302, and 404. If nonprofit colleges and universities were to implement SOX-like reforms, it would prompt several questions:

- Could Pitt provide several potential benefits that would outweigh the resulting costs and burdens?
- Could losses associated with fraud and theft be reduced dramatically?
- Could financial reporting become more transparent and more reliable? Would accountability improve, especially in the areas of financial reporting and operations?
- Could universities' reputations and prestige be enhanced by avoiding embarrassing frauds?

Even if Pitt's experience was successful under this metric, other nonprofit colleges and universities might have to balance the need to maintain a strong control environment with budgetary constraints. Although an effective internal control system is vital to transparency and tight internal controls, the cost implications of documenting, testing, and evaluating key controls could make Section 404 too costly for nonprofit colleges or universities. Nonprofit colleges and universities should weigh the costs of implementing Section 404 against their potential direct and indirect benefits when creating and implementing a robust internal control system. However, Pitt's intent was not necessarily to create such a system since many controls were already in place and functioning properly. *One of Pitt's goals was simply to improve the documentation of such controls and provide a mechanism to test those controls on a routine basis.*

The most obvious cost implications are those for the budget. Direct costs, such as hiring additional employees to create a new office for SOX compliance and to achieve adequate separation of duties, are sometimes too expensive for nonprofit universities. As a result, nonprofit universities may want to substitute less costly and less effective controls but then make allowances to increase their effectiveness. For example, they may want to conduct unannounced Internal Audits and create clear, specific information security and storage procedures. When deciding how to allocate limited financial resources, nonprofit colleges and universities may need to come up with unique ways to comply with the SOX requirements in order to limit the costs.

Finally, to assess whether Pitt's experience could be scalable and applicable to other nonprofit colleges and universities, those institutions would have to conduct their own analyses on the feasibility of SOX implementation, which would be informed by Pitt's experience. In making that determination, those colleges and universities would want to consider alternatives to

the Pitt model. However, the more they know about the benefits and burdens of Pitt's model, the greater confidence they may have in selecting an approach best suited to their circumstances.

There is often a trade-off between the cost and the effectiveness of internal controls. The concept of reasonable assurance recognizes that the cost of an entity's internal control should not exceed the expected benefits (Louwers et al., 2015). The more that those nonprofit colleges and universities could assess how Pitt implemented its SOX-modeled reforms, the more that they would be able to assess the benefits of implementing an enhanced control environment. The costs and burdens associated with implementing SOX-like reforms are potentially very high and may be difficult to evaluate reliably against the unknown risk of fraud. Imposing SOX-like reforms as a matter of law may unduly burden smaller nonprofit colleges and universities. Implementation may need to be voluntary, with a federally funded or state-funded financial incentive, to induce compliance with SOX-like reforms. Such a financial incentive might tilt the balance of the cost-benefit analysis in favor of reform and could protect nonprofit colleges and universities from fraud.

1.7 STUDY SITE

To implement SOX-inspired measures, including the requirements in Sections 301, 302, and 404, Pitt recruited an experienced SOX department consisting of a director and two staff members. The department has been reduced to one staff member after the initial resource-intensive documentation was completed.

Since 2003, Pitt's controller's office and Internal Audit Department have worked to implement *voluntarily* SOX-inspired reforms that could be applicable to nonprofit higher

education institutions. Pitt's Audit Committee and its external auditors recommended the voluntary implementation of those SOX-like reforms as best practices of corporate governance and accountability. SOX had been praised for nurturing an ethical culture as it forced top management to be transparent and employees to be responsible for their acts while also protecting whistleblowers (Louwers et al., 2015). Consistent with those recommendations, Pitt voluntarily implemented, in phases, SOX standards for internal control documentation and testing, independent auditors, senior management, and Audit Committee.

1.8 SIGNIFICANCE OF THE STUDY

Implementing SOX at nonprofit colleges and universities involves several key stakeholders. Within the institution, stakeholders include university officers such as the Chancellor, Chief Financial Officer, Controller, vice presidents, department chairs, and other faculty and staff. Other stakeholders include the board of trustees, in addition to students and alumni, as well as the federal and state governments.

The university Chancellor, CFO, Controller, senior management, trustees, and the Audit Committee want to ensure that the institution has addressed accountability and governance issues on their campus. These stakeholders are directly linked to the organization both actively and reactively – they can influence the organization's actions, objectives, and policies, and at the same time, they are directly affected by the organization's actions, objectives, and policies (Heifetz et al., 2009). Not all stakeholders are equal; nor do their interests always coincide.

1.9 LIMITATIONS

The primary limitation lies in focusing on one nonprofit university's disclosures about its successful efforts to implement SOX. I did not review implementation of these requirements at any other institution of higher education except at the University of Pittsburgh. Also, my study does not address all requirements of SOX. It is limited to the Sections 301, 302, and 404 requirements.

1.10 CONCLUSION

By chronicling Pitt's experience in voluntarily implementing three key SOX-inspired reforms, this inquiry may assist other colleges and universities by suggesting factors to be considered in making the choice to voluntarily adopt SOX-like reforms as well.

2.0 LITERATURE REVIEW

This chapter provides a thorough background on salient concepts to this study, including fraud, nonprofit fraud, and the Sarbanes-Oxley Act. The concluding Section presents guidelines of the cost benefit analysis (CBA) and requirements of Sarbanes-Oxley Act. This is the lens through which the proposal for the study was documented.

2.1 FRAUD SCHOLARSHIP

The foundation of contemporary fraud scholarship is the work of a criminologist, Donald Cressey, who, in 1950, studied incarcerated criminals to learn why they committed fraud. To learn the motivations of those who violate the trust of others, he interviewed 250 fraud offenders over a period of five months whose behavior met two criteria: (1) the person must have accepted a position of trust originally in good faith, and (2) the person must have later violated the trust.

Cressey found that three factors predominated in that scenario: pressure, opportunity, and rationalization (Cressey, 1950). Cressey explained that pressure often occurs as a non-shareable financial problem. The opportunity factor occurs from a lack of internal controls within a company, leading the violator to perceive that he/she can exploit the situation without reprisal (Cressey, 1950). As for the final factor, Cressey found that many violators did not view themselves as criminals because they had rationalized the misdeed (Cressey, 1950). In fact,

many of the violators Cressey interviewed felt that they were justified and that the fraudulent act was part of a general irresponsibility for which they were not completely accountable. These three factors have been referred to as “the fraud triangle” of opportunity, motivation and rationalization. This theory helps explain why a person commits a fraudulent act, and it can be beneficial in assessing fraud risk in an organization.

2.2 NONPROFIT FRAUD

Beyond this organic understanding of fraud, several studies have examined fraud in nonprofit organizations. For instance, in *An Investigation of Fraud in Nonprofit Organizations: Occurrences and Deterrents*, Greenlee et al. (2006) sought to identify common types of fraud in nonprofits, as well as the amount of the fraud and its duration. The authors analyzed 58 fraud cases from the Association of Certified Fraud Examiners (ACFE) reports of fraud for nonprofit organizations. They determined that nonprofit organizations experienced huge losses due to fraud; they were no less susceptible to fraud than for-profit corporations (Greenlee et al., 2006). As far as the type of fraud, *asset misappropriations* comprise the majority of reported nonprofit frauds. Their findings are corroborated by a more recent example from 2013, when two Harvard administrators were accused of embezzling \$110,000 meant for disabled students and spending it on items for themselves, friends, and family. The theft was detected by Internal Audit (Greenlee et al., 2006). According to Greenlee et al. (2006), losses due to fraudulent activities are very troublesome for nonprofits because they directly reduced resources available to address tax-exempt purposes. The ensuing negative publicity also greatly imperils nonprofits by jeopardizing future donations and grants (Greenlee et al., 2006).

More recently, the ACFE Report to the Nations (2014) reports that nonprofit fraud had increased over the last four years from 9.6 percent to 10.8 percent of all reported fraud, with a median loss of about \$108,000 per incident (ACFE, 2014). ACFE's Report to the Nations contains data compiled from a study of occupational fraud cases across the world. Since the inception of the first Report to the Nation in 1998, the ACFE has released six updated editions — in 2002, 2004, 2006, 2008, 2010, 2012, and 2014. The 2014 Report to the Nations on Occupational Fraud and Abuse is based on the results of an online survey distributed to 22,927 Certified Fraud Examiners (CFEs) in October 2013 (ACFE, 2014). As part of the survey, respondents were asked to provide a detailed narrative of the single largest fraud case they had investigated that met the following four explicit criteria: “1. the case must have involved occupational fraud (defined as internal fraud, or fraud committed by a person against the organization for which he or she works). 2. The investigation must have occurred between January 2014 and the time of survey participation. 3. The investigation must have been complete at the time of survey participation. 4. the respondent must have been reasonably sure the perpetrator(s) was (were) identified” (ACFE RTN, 2016, p. 26)”. Each report was based on detailed case information provided by CFEs, the professionals who investigated those cases.

Other literature has postulated that fraud may be easier to perpetrate in nonprofit organizations. For example, Douglas and Mills (2000) argue that several factors allow fraud to occur more easily at nonprofits, such as the following: 1) an atmosphere of trust, 2) the difficulty in verifying certain revenue streams, 3) weaker internal controls, 4) lack of business and financial expertise, and 5) reliance on volunteer boards. More empirically, Petrovits et al. (2011) studied a sample of 27,495 public charities with reported internal control deficiencies from 1999-2007 and concluded that nonprofit organizations have relatively weak regulations oversight.

Specifically, they found that nonprofit organizations that are complex, growing, and in poor financial health were more likely to report internal control problems, which, in turn, undermines public support and government contributions (Petrovits et al., 2011). An initial federal response occurred in 1990, which required nonprofit organizations that receive federal funding to have reviews of their internal controls (Petrovits et al., 2011).

Several studies have also evaluated the effectiveness of anti-fraud reforms at nonprofit institutions. In the article, “The Effectiveness of Fraud Detection Instruments in Nonprofit Organizations,” Kummer et al. (2015) investigated the effectiveness of fraud detection instruments in nonprofit organizations. The researchers relied on data from a nonprofit fraud survey conducted in Australia and New Zealand, and, using a set of contingency tables, hypothesized a relationship between the existence of specific fraud detection instruments and actual detection of fraud (Kummer et al., 2015). The authors explored the relationship between organizational size and fraud detection strategy. According to the authors, most fraud detection measures may not be successful in leading to the detection of more fraud. However, *three highly effective instruments did emerge for fraud prevention: 1) fraud control policies, 2) whistleblower policies, and 3) fraud risk registers* (Kummer et al., 2015). Notably it was those three methods, and not more commonly used fraud detection instruments, such as external financial statement audits, that appeared to be the most effective in preventing fraud.

Similarly, in “The Impact of Regulation on the U.S. Nonprofit Sector: Initial Evidence from the Nonprofit Integrity Act of 2004,” Neely (2011) sought to understand the initial impact of an act passed in California, the Nonprofit Integrity Act, on the nonprofit sector. The article has a particular focus on whether the Act led to a change in financial reporting quality and commercial fundraising activity of nonprofits. Neely analyzed the new reporting forms (known

as 990 Forms) that the Act required nonprofits to complete in 2005 (after the Act was passed) and compared those with the financial statements of the same organizations from 2003 (before the Act was passed). After California implemented the Act, Neely found that the financial reporting quality was improved in a limited fashion and that accounting fees increased (Neely, 2011). The greatest impact of the Act on financial statement quality was on the nonprofits that were not audited prior to the implementation of the Act.

2.3 THE SARBANES-OXLEY ACT (SOX)

Following the enactment of SOX, researchers began to explore more seriously the value of greater internal controls in the nonprofit sector (Coates, 2007). In the wake of several high-profile fraud schemes, such as Enron and WorldCom, Congress passed SOX in 2002 to protect investors and restore investor confidence by imposing a number of anti-fraud measures and enhanced internal controls on publicly traded companies. Designed as a mandate for publicly traded companies, SOX imposed greater oversight, new disclosure rules, auditing standards, and penalties for noncompliance (Coates, 2007). Specifically, SOX required that public companies evaluate and openly disclose in their financial reporting that: a) CEOs and CFOs certify their company's financial reports, b) auditor independence be increased, c) independent Audit Committees provide oversight to the company and the auditor, d) transparency be enhanced through more comprehensive financial disclosures, and e) the entity not make personal loans to CEOs and other executive officers (Coates, 2007).

Those mandates for publicly traded companies are not hollow words. SOX also imposes additional criminal penalties for securities fraud, enhances civil penalties for securities fraud,

extends whistleblower protections, and establishes an oversight organization, the Public Company Accounting Oversight Board (PCAOB) (Coates, 2007). SOX is limited in scope in that it applies only to publicly traded companies (Coates, 2007). Given the reform climate during which it was enacted, SOX took another step and created a unique, quasi-public institution, the Public Company Accounting Oversight Board (PCAOB), to regulate public company auditing (Coates, 2007). The PCAOB publishes a great deal of guidance on the integrity of financial statements, internal controls, and fraud prevention methods, much of which could be extended to entities that are not directly within SOX's coverage (Coates, 2007).

2.3.1 SOX and the nonprofit higher education sector

With respect to the efficacy of SOX-like reforms in the nonprofit sector, Nezhina and Brudney (2010) surveyed nonprofit organizations to assess their implementation of SOX. The survey results indicated that the adoption of SOX by nonprofits was directly linked to those organizations' transparency and accountability structure prior to SOX. Therefore, the level of voluntary implementation of SOX-like reforms was modest. Also, the survey results showed that other variables such as the CEOs' familiarity with SOX, attitudes of nonprofit CEOs toward SOX, and organization size had a direct link to the likelihood of SOX implementation (Nezhina & Brudney, 2010).

Like other nonprofits, nonprofit colleges and universities are not required by law to have the same fraud prevention and detection processes as publicly traded corporations, which must adhere to the heightened SOX standards for internal control external audits and fraud prevention (Louwers et al., 2015). In this respect, the research by Maatman (2006) is particularly noteworthy as it suggests that organizations not required to implement the corporate governance

standards required by SOX may see benefits from doing so voluntarily. Specifically, Maatman posits that SOX standards could help a) address any problems with corporate culture issues, b) establish enhanced governance and oversight over controls, c) create better responsiveness by the board members and senior management, and d) allow the company to adopt reporting and risk assessments practices for continuous focus on compliance issues (Maatman, 2006). Thus, the theory is that by implementing SOX, the corporation reviews the adequacy and operation of its internal accounting and financial controls and practices. And by so doing, any entity – whether it is formally bound by SOX or not – deters fraud.

Before analyzing the applicability of SOX standards to U.S. nonprofit institutions of higher education, it is useful to describe the accreditation process through which external non-governmental entities review compliance with academic and financial standards (Government Accountability Office, 2015). The accreditation process is one of the only oversight mechanisms for nonprofit colleges and universities. While accreditation is primarily voluntary, there is a funding incentive: The Department of Education will only provide federal student aid funds to accredited institutions (Government Accountability Office, 2015). A GAO analysis found that from October 2009 through March 2014, accreditors issued at least 984 sanctions to 621 schools and terminated the accreditation of 66 schools (Government Accountability Office, 2015). For this time period, the most common type of sanction was financial rather than academic (Government Accountability Office, 2015).

Some research recognizes that not every provision of SOX would readily apply to nonprofits, with Mead (2007) identifying three SOX rules that will provide a net benefit to the nonprofit sector with minimal costs while increasing donor confidence. The three reforms are: a) requiring nonprofit officers to certify financial statements, b) mandating audits of nonprofits'

financial statements, and c) imposing independent Audit Committees on nonprofit boards of directors (Mead, 2007). Mead argues that those reforms should be mandatory because, although voluntary reform would prevent mismanagement, it would not be effective in boosting donor confidence or preventing fraud. The three reforms suggested by Mead would improve the accuracy of financial disclosure and appease the concerns of donors without imposing impossible burdens on the nonprofit sector.

Privately held companies are outside the scope of SOX, as are nonprofit institutions; consequently, they are not required by law to have SOX fraud prevention and detection processes (Louwers et al., 2015). The risk of fraud increases when an organization – any organization – fails to engage in fraud prevention efforts through internal controls and other anti-fraud mechanisms. Fraud damages morale, jeopardizes the reputation of the university, and raises questions about its fiduciary duties regarding funds provided by donors, government agencies, students, and parents (Louwers et al., 2015). Fraud research states that the key method for deterring fraud is through proactive efforts to prevent it (Louwers et al., 2015). If implemented, in whole or in part, SOX could help to deter fraud at nonprofit institutions of higher education. Nonprofit colleges and universities might face a lower risk of losses from fraud and theft, as well as benefit from more reliable financial reporting, greater transparency, and accountability (Louwers et al., 2015). Those benefits have secondary benefits as well in that they can ensure that a university's reputation is not sullied by allegations of fraud.

Iyer and Watkins (2008) surveyed 215 nonprofit organizations to assess the degree that those organizations have voluntarily adopted SOX provisions. The researchers found that many of the nonprofits in the survey had adopted measures similar to SOX or were in the process of doing so. Iyer and Watkins identified SOX provisions applicable to nonprofit organizations,

such as independent and competent Audit Committees, codes of conduct and ethics, whistleblower provisions, certification of financial information, and audit of internal controls (Mead, 2007). Based on the survey results, Iyer and Watkins found that many nonprofits have similar governance measures in place that are similar to SOX; the nonprofits with larger annual budgets were familiar with t SOX and had Audit Committees and whistleblower protection policies (Iyer & Watkins, 2008). In addition, when nonprofits had external/internal auditors, the organization was more than likely to have implemented SOX provisions (Iyer & Watkins, 2008). Finally, larger boards and boards with independent members were more likely to create an Audit Committee and adopt a code of ethics (Iyer & Watkins, 2008). While other nonprofits have adopted certain aspects of SOX, very few have formally adopted Sections 302 or 404, the most resource-intensive.

Goins et al. (2009) surveyed auditors at colleges and universities to determine their degree of SOX implementation, which provisions they implemented, and their opinions on the usefulness of SOX (Goins et al., 2009). The researchers found that private and public colleges and universities are beginning to implement certain provisions of SOX that are cost-effective. Overall, 63 percent of the universities had implemented some component of SOX. Three of the SOX sections were most frequently implemented: 201, which prohibits the practice of auditing firms providing consulting services to their clients (85 percent); 204, which requires that the external auditors report to the audit committee (80 percent); and 401, which requires that the financial statements that are published by issuers be accurate and presented in a manner that does not contain incorrect statements (85 percent) (Goins et al., 2009). These choices make sense because they can apply to any organization and are not too costly to implement. Three sections were least likely to be implemented: 206, 406, and 407. Section 206 states that an accounting

firm cannot conduct a company audit if the CEO, CFO, or other high-ranking executives worked for the auditor within the last year. Sections 406 and 407 state that a company must disclose whether it has at least one "Audit Committee financial expert" serving on its Audit Committee, and the rules require a company to disclose whether it has adopted a code of ethics that applies to the company's principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions (SEC, 2002). Goins et al. assert that certain provisions of SOX are critical to all organizations, not just publicly traded ones, such as a whistleblower policy, a code of ethics, and auditor independence (Goins et al., 2009).

The threat of institutional fraud in higher education supports the incentive to implement SOX reforms. There are several examples of fraud in universities and colleges, such as the following.

Bethany College caught a cashier's office employee stealing more than \$500,000. A Harrisburg community college vice president plead guilty to using college funds to pay for personal purchases totaling \$228,000. At Georgetown University, an administrator embezzled \$390,000. The ACFE reports that education is now one of the top five industries for reported cases of occupational fraud (ACFE, 2018). The primary reason that nonprofit higher education institutions struggle with relatively high occupation fraud rates is the perception that is the education sector is immune. ACFE reports that the five most common types of fraud schemes in higher education involve payroll, billing, skimming, expense reimbursements, and corruption (ACFE, 2018).

2.3.2 Criticism of SOX

Even though SOX legislation was created to combat financial statement fraud in the early 2000s to help protect the public's financial interests, SOX does have its critics. Pautz and Washington (2009) argued that SOX does not meet its objective of improving accountability in both the private and government sectors. Pautz and Washington argued that SOX was created as emergency legislation amid a free-falling stock market and media frenzy over corporate scandals shortly before a midterm election. The authors further contend that the creation of the PCAOB actually hinders accountability due to lack of oversight of the PCAOB and transparency of the quasi-government nonprofit organization. According to Pautz and Washington, SOX increased costs for publicly traded companies and was poorly implemented. For example, increased audit costs and legal fees forced a number of small companies to go private. Even a sponsor of SOX, former U.S. Congressman Michael Oxley, stated that SOX was adopted from a banking statute and was superimposed on publicly traded companies, resulting in financial and operational nightmares (Pautz & Washington, 2009). Other critiques of SOX include some corporations spending considerable additional time and money on implementing SOX reporting requirements and making significant changes to their internal compliance programs (Leuz, 2007). These burdens in implementation could also affect any nonprofit college or university's willingness to implement SOX reforms. Several research studies have shown that the larger the company, the greater the SOX compliance costs. For instance, the external audit fees are very expensive. In addition, the first round of internal control audits can be cost-prohibitive (Leuz, 2007). Thus, there is a school of thought that at least certain SOX-modeled reforms cannot be justified under a cost-benefit analysis.

2.4 CONCLUSION AND RESEARCH APPROACH

Fraud is inherently challenging to research because it unmistakably involves deception, not merely an inaccuracy or an inadvertent misrepresentation; at the core of every financial fraud scheme lies the desire to deceive and conceal the fraudster's true intention. As the literature review demonstrates, a common research approach is to study fraud after the fact. This was done by Cressy (1950) in his interviews with convicted fraudsters, by the ACFE Report to the Nations (2016, 2014, 2010, 2008, 2006, and 2004) in their review of 58 fraud cases to determine commonalities, and by Petrovits et al. (2011) in reviewing 27,495 incidents of fraud. While this research is certainly informative, it differs from my research focus, which is not so much on the causes of fraud or even the effectiveness of specific fraud prevention measures but rather on the feasibility of SOX-inspired fraud prevention reforms in the context of higher education.

Studying incidents of fraud is not the only research method in this field. Another common research method in fraud research is the use of surveys to understand how institutions have experienced and confronted fraud. Research by the ACFE in its Report to the Nations, as well as the articles by Kummer (2015), Brudney (2009), and Iyer and Watkins (2008) have all relied on surveys as the key means of gathering information to study fraud. Finally, much of the fraud scholarship is theoretical -- it predicts outcomes based on the expected consequences of institutional responses to fraud. The articles by Maatman (2006) and Mead (2007) follow that approach.

While each of those research methods has value, my focus required that I build from prior research by providing greater depth but narrower breadth than has been provided previously. I looked at how one institution of higher education, when motivated to enhance its internal control environment and prevent fraud, can do so without undue burden. To achieve that goal, a case

study is the best research method because it allows me to study in-depth one institution's effort to tighten its control environment to ascertain the feasibility of different fraud prevention efforts. This case study is important because it provides a realistic perspective for nonprofit colleges or universities that seek to implement SOX-inspired reforms.

The risk with any case study comes with the issue of scalability: Are the results so tied to the unique circumstances of the specific case that they will be esoteric and without broader applicability? In other words, just because a given policy is successful in one instance may prove nothing beyond the fact that it was successful in that one instance. Therefore, for a case study to have broader applicability, it should involve similar issues to those that many entities confront. With that perspective, that is what my case study attempts to do: identify the issues that Pitt considered in determining whether and how to implement SOX-inspired internal control measures.

As the literature makes clear, however, the study of fraud does not always lend itself to the most straightforward research method. Here Pitt could approximate the costs of the SOX-inspired reforms, but it would be nearly impossible to evaluate the benefits of Pitt's reforms: Potential fraudsters do not report when an organization's internal controls disrupt their fraud schemes. Without the ready ability to meaningfully account for, much less monetize, the value of fraud prevention methods, it is not realistic to undertake a CBA of fraud prevention measures. That does not mean that there is no value in researching fraud prevention approaches. To the contrary, this case study examines the feasibility and burdens associated with implementing SOX-inspired reforms. And because there is no ultimate comparison between costs and benefits, it is not necessary to quantify the overall costs of implementing SOX-inspired reforms. Thus, this case study is largely qualitative.

Even without specific quantitative findings, this case study can contribute to the existing body of literature, which makes clear that fraud risks exist for nonprofit colleges and universities, and that SOX-like reforms can assist in creating a strong control environment, while also recognizing that SOX itself was an imperfect solution, enacted under exigent circumstances. Thus a study of Pitt's experience in voluntarily implementing SOX-inspired reforms could provide insights into the feasibility of nonprofit colleges and universities adopting three of the more stringent SOX reforms, Sections 301, 302, and 404.

3.0 RESEARCH QUESTIONS AND METHODOLOGY

This chapter outlines the research questions and gives details for their reasoning. In addition, this chapter provides an in-depth explanation of the research methodology and its limitations.

3.1 RESEARCH QUESTIONS

3.1.1 Can a nonprofit university successfully apply SOX Sections 301, 302, and 404?

The central question is whether a nonprofit college or university can apply SOX sections 301, 302, and 404. It would be unsuitable for colleges and universities to comply with the entire act, but implementing best practices among the SOX provisions allows colleges and universities to improve their financial reporting, corporate governance, and internal controls. According to Goins et al. (2009), an increasing number of nonpublic companies and nonprofit organizations are implementing sections of SOX because they believe it will benefit their organizations without dramatically increasing their costs. The problem is that sections 302 and 404 of SOX are not directly applicable to nonprofit universities. Those sections do have value in the context of non-profit institutions of higher education, but the challenge is figuring out how to implement them in the nonprofit context. The value of this case study is to present a model for other nonprofit colleges and universities that wish to implement the more demanding key sections of

SOX but have not done so due to uncertainty and burdens of implementing those reforms. The Pitt model provides a benchmark for those institutions so that they will have the benefit of Pitt's implementation processes as they contemplate the potential voluntary implementation of some of the more challenging provisions of SOX.

3.1.2 What were the burdens associated with Pitt's voluntary implementation of those SOX-modeled reforms?

There are several known challenges associated with implementing the SOX requirements. One of the key challenges is cost of implementation. Nonprofit colleges and universities may not have the resources to implement SOX voluntarily (Beaver & Weinbaum, 2012). For example, some corporations reported spending considerable additional time and money on implementing SOX reporting requirements and making significant changes to their internal compliance programs (Leuz, 2007). Specifically, in 2009 the SEC conducted a survey to analyze the compliance costs associated with implementing SOX (SEC, 2009). The analysis of the survey data revealed that compliance costs vary with company size (increasing with size), compliance history (decreasing with increased compliance experience), and compliance regime (lower after the 2007 reforms) (SEC, 2009). Although larger companies incurred higher compliance costs, smaller companies incurred higher scaled costs (i.e., relative to their assets) on average (SEC, 2009). This finding is consistent with the idea that annual Section 404 compliance involves a fixed cost that is unrelated to the size of the reporting company (SEC, 2009). This could affect any nonprofit university or college not only in its decision to voluntarily implement SOX, but also in addressing the high compliance costs with such an endeavor.

In addition, this question builds off of the first set of inquiries by engaging in a “lessons learned” analysis. *It focuses on what worked and did not work well for Pitt.* This line of questions is also intended to balance the inquiry process to ensure that this paper does not implicitly suggest a bias in favor of regulation over de-regulation. It is crucial to understand that this problem of practice does not suppose that the burdens associated with implementing SOX will justify their utility; it merely strives to follow the experience of one university that chose to implement such policies. Learning from that university’s experience may reduce the implementation burdens for other nonprofit colleges and universities and thus provide them more data as they weigh the value of voluntary adoption of SOX.

3.1.3 What benefits to the University does Pitt attribute to its voluntary implementation of SOX Sections 301, 302, and 404?

This set of questions attempts to drill down to the benefit side of the analysis for the voluntary adoption of SOX-like reforms. Thus, questions that attempt to evaluate the magnitude of the benefits are very important. A key sub-inquiry involves the question of whether the benefits are quantifiable, and, if so, how. Understanding any measurable benefits that Pitt has experienced could be very helpful to other higher education institutions that wish to consider voluntary adoption of SOX-like reforms.

3.2 SETTING

The University of Pittsburgh is a public institution that was founded in 1787 with a total undergraduate enrollment of 19,123 (U.S. News, 2017). In 2017, Pitt, which ranked 75th overall nationally, jumped to the number one spot for public schools in the Northeast region (U.S. News, 2017). Pitt is considered a pioneer in many respects for research and innovation. The university earns national accolades for its highly ranked School of Medicine, School of Education, and Swanson School of Engineering (U.S. News, 2017). It is no surprise that Pitt has a culture of setting a high standard. Pitt's decision, therefore, to voluntarily implement SOX is not surprising. From 2003 to May 2011, the controller's office and the Internal Audit department at Pitt worked to implement *voluntarily* the SOX reforms that could be applicable to nonprofit higher education institutions. It is also telling that Pitt's Audit Committee and its external auditors recommended the voluntary implementation of those SOX-like reforms as best practices of corporate governance and accountability. Consistent with those recommendations, Pitt voluntarily implemented, in phases, SOX standards for independent auditors, senior management, and its Audit Committee.

3.3 RESEARCHER'S EPISTEMOLOGY

This research rests on two epistemological assumptions. First, because this is a case-study designed to understand Pitt's approach to implementing SOX, relevant knowledge and information is assumed to come from Pitt itself – as opposed to any outside entity (such as an outside auditor or an independent regulatory body). Second, to acquire information from within

Pitt, the focus has been to identify the key decision-makers and/or persons with knowledge of the decision-making process to understand why and how Pitt adopted and implemented SOX. That information was learned through document review, responses to written questions, in-person interviews, and on-site observations.

3.4 RESEARCHER'S REFLEXIVITY

I am an Associate Professor of Accounting at a local public, nonprofit University (Slippery Rock University). I have a background in accounting, with a strong interest in preserving the integrity of educational institutions. My experience began when I was working as a private-sector accountant at the time SOX was passed, and I remember the impact it had on the businesses generally and the accounting profession specifically. For example, as an auditor at Ernst and Young, after SOX passed we not only had to audit our clients' financial statements but also needed to audit their internal controls. Some of our clients did not even have documentation of their key internal control processes and procedures, let alone have a testing schedule to examine if the controls worked properly. Therefore, we had to start from scratch to identify the key internal controls and document the process and procedures in a narrative and a flow chart. I also worked at the U.S. Government Accountability Office (GAO) in Washington, D.C. on financial statement audits and fraud prevention. The GAO ingrained two values in me: a commitment to impartiality and an earnest desire to detect and prevent fraud. Ironically, those two GAO-instilled values are a bit in tension in this research project: I want to be as impartial as possible, but I recognize that I inherently favor the voluntary adoption of enhanced fraud prevention methods and a strong control environment.

3.5 INQUIRY APPROACH

As a research method, case study methodology is well established in the social sciences. It is a type of research inquiry that examines a real-life contemporary phenomenon (Yin, 2014). The case study method often involves observing and documenting what happens to, or reconstructing “the case history” of a single participant or group of individuals, in this case a university (Yin, 2014). When researching Pitt’s implementation of Sections 301, 302, and 404, I needed to seek corroborating evidence and documentation to ensure that the evidence is defensible and thus reportable. It is typical, then, for multiple sources of evidence to be used (Yin, 2009).

I used snowball sampling to determine participants to interview. Snowball sampling is a nonprobability sampling technique in which a few people are strategically selected based on the research needs (Coleman, 1958). Then, those participants identify additional participants and so on until a sufficient number of participants and enough information is collected (Gay et al., 2012). The sample of participants I used could be likened to a rolling snowball. As the sample builds up, enough data was gathered to be useful for research.

To begin, I first interviewed Pitt’s Controller and Internal Audit director. Both are in charge of their respective departments, which led the SOX implementation. I documented those interviews in Word files and asked follow-up questions as needed. It is important to understand how Pitt implemented SOX, specifically the reforms it made that were inspired by Sections 301, 302, and 404, so that that process and method could serve as a concrete and specific example of how other nonprofit colleges and universities could implement SOX Sections 301, 302, and 404. Those two men told me whom I needed to interview next to gain more data for my research. Figure 2 below demonstrates the order of the interviews that I conducted.

To document how Pitt implemented Section 301, 302, and 404, I interviewed several people to understand their roles and experience in implementing SOX. Through these interviews, I was able to gather data to document an outline of the procedures used. In addition, I reviewed documents for the documentation and testing of key internal controls within Pitt's SOX Department and the Controller's office.

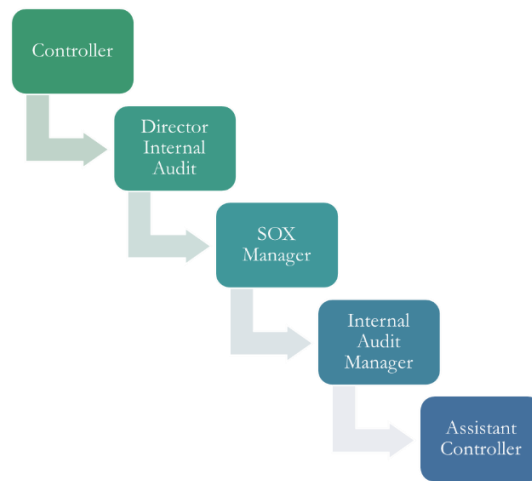


Figure 2. Order of Participant Interviews

Also, I interviewed the Internal Audit department director to understand his role in testing the internal controls and how his department followed up if any weaknesses were identified. In addition, the Internal Audit director gave me information about the implementation and governance of the anonymous hotline the Internal Audit department manages. The Internal Audit director gave me a lot of information about the overall approach when implementing SOX Sections 301 and 404. Next, he suggested I interview the internal audit manager in charge of SOX implementation for Sections 301 and 404. In addition, he gave me information about the process for testing the SOX department's work for the internal control testing related to Section 404.

Finally, I interviewed the assistant controller, who is the 404 process owner for the financial statement process, to gain her perspective on determining the impact that SOX implementation had on highlighting the importance of maintaining adequate internal controls for the financial statement process. The Controller recommended I interview the Assistant Controller to gain her perspective on the SOX work related to her department, Financial Reporting. (Please see Appendix A for the specific questions.)

3.6 METHOD OF ANALYSIS

For this inquiry, I am a qualitative researcher studying Pitt's implementation of SOX. The specific qualitative method I used was a single case study with purposeful selection (Stake, 1995) at the University of Pittsburgh. Since I used a single unit of analysis, it is a holistic case study, which uses a research framework that draws from an array of stakeholders (Yin, 2014). The design, implementation, and analysis should facilitate a synergistic combination of various aspects or elements of the case study (Yin, 2014).

This case study was conducted for research purposes; therefore, I included the program, the steps of program implementation, the context, and the lessons learned by using suggestions from Lincoln and Guba's case study structure (Lincoln & Guba, 1985). In addition, to encourage transferability, I included thick description of the case (Geertz, 2008). According to Holloway (1997), thick description refers to the detailed account of field experiences in which the researcher makes explicit the patterns of cultural and social relationships and puts them in context (Holloway, 1997). Such description enhances the value of this case study as a guide for other nonprofit colleges and universities.

I had the Controller review the draft of my case study report to ensure construct validity (Yin, 2014). For reliability, I used a database to organize my direct observations, field notes, documents, interview notes, and transcripts (Yin, 2014). The field notes consisted of jottings, notes from interviews, documents produced by Pitt, notes from observations, and documentary evidence. According to Yin, a case study researcher conducts fieldwork through interviews, collection of document evidence, and direct observations in a real-world setting (2014, p. 239). For key interviews I documented the meetings and took detailed notes to ensure I captured the necessary data to document the case study. Once I collected the data, I organized the data by categorically referencing units of texts with codes and labels to indicate patterns and meaning into qualitative data (Gay et al., 2012, p. 624).

3.7 CASE SETTING

The University of Pittsburgh is the case that I documented and analyzed. The higher education environment is diverse, decentralized, and expansive. For example, the University of Pittsburgh, an undergraduate and graduate degree granting institution, has the following characteristics that create a challenging fraud prevention environment: expansive population (28,664 students and 12,646 staff and faculty), widespread operating area (132 acres), and a large amount of funds (2.2 million in annual revenue). Pitt has a decentralized system with 17 colleges and schools as well as four undergraduate regional campuses located in Bradford, Greensburg, Johnstown, and Titusville. In sum, the University of Pittsburgh is a complex nonprofit institution of higher education environment with many opportunities for people to make decentralized choices, which places Pitt's resources at risk.

According to Kranacher (2005), fraud, waste, and abuse can occur at nonprofit colleges and universities; this public domain provides greater pressures and incentives to commit fraud in comparison with the private sector. Some examples of fraud occurring at nonprofit universities and colleges include but are not limited to the following: stealing funds through unauthorized use of purchasing cards, filing false expense reports, and appropriating university property. Deans and chairpersons could create phony positions (e.g., “assistant dean for retention”) and hire friends and relatives to fill them. Department heads could use department funds to purchase goods and services for their personal use (Kranacher, 2005). In 2013, two female administrators at Harvard Law were accused of stealing \$110,000 meant for students with disabilities. These women purchased laptops, iPads, purses, jewelry, clothing, and X-rated items. The internal financial audit team identified the fraud and pressed criminal charges. The remedy was to impose additional layers of internal control, which can be accomplished through the implementation of SOX Section 404.

3.8 DATA

I interviewed Pitt’s Controller to understand the university’s motivations for implementing SOX. Through the interview, I learned why and how Pitt implemented SOX. This information allowed me to create a story documenting the process Pitt took to implement SOX (see Chapter 4). Pitt’s Controller, who has worked at Pitt for 28 years, was an instrumental figure in implementing SOX because of his knowledge of the University’s history. He took the lead role in creating the SOX steering committee and the SOX department. His knowledge and experience was pivotal to

my research. I asked the Controller who I should interview next to gain more data about the SOX implementation, and he referred me to the Internal Audit Director.

SOX states that it is management's responsibility for establishing and maintaining adequate internal control over financial reporting (Louwers et al., 2015). Internal Audit assesses and reports on the effectiveness of internal control over financial reporting. Therefore, the Internal Audit Director, who for 26 years has worked in various roles in the department, was a key participant in my study. I interviewed the director of Internal Audit and the Controller to find out what recommendations they have for other nonprofit colleges and universities to implement SOX.

Next, I interviewed the key central business processes owner for Financial Reporting, the Assistant Controller, who has worked at Pitt for 24 years in various positions such as Operating Budget Director; Director of Budget and Financial Reporting; and Assistant Controller, Budget and Financial Reporting. Finally, I interviewed the SOX department manager, who has worked at the University for 11 years. His current responsibilities are to perform risk assessments on the processes identified every two years, manage the Control Self-Assessment and 302 certification processes, and maintain and track control deficiencies. The interviews with Pitt personnel gave me information that I would not be able to obtain from observation alone. Therefore, I paired observation with interviews to provide valuable complementary data.

3.9 DATA ANALYSIS

A case study is a research approach that is used to generate an in-depth, multi-faceted understanding of a complex issue in its real-life context (Yin, 2014). Data in a case study should

be in-depth data from multiple sources of information (Creswell, 1998). The strategy for data analysis that Yin suggests is to focus on the relevant data collected and ignore other irrelevant data (2014). This approach helped to organize my case study. In addition, I checked the findings with the case study participants, which was a valuable part of the analysis and enhanced validity (Hartley, 2004, p.330). I organized the data based on the following categories: background of the interviewee, strategic vision, implementation of SOX-inspired reforms, and lessons learned.

The background section consists of data related to the participants' years worked, experience at the university, positions at the university, and involvement with SOX. The strategic vision category was limited to the Controller and Internal Audit director since they were on the SOX steering committee. The implementation of SOX-inspired reforms had three main categories: the planning phase, testing phase, and reporting phase, all of which related to the specifics of how each participant completed the SOX compliance respective to his or her role. A "lessons learned" section summarizes each participant's findings. Hindsight is said to be 20/20. Pitt's Controller was able to highlight any errors that occurred during the implementation and pinpoint things that could have been done better. In any new endeavor or program, some people will do a better job than others in implementing the new program. Finally, analysis of the data was enhanced by reference to the existing literature and using this information to verify whether my findings were consistent with or different from extant research. The following table (Table 1) summarizes the research questions with relevant methods to answer the question. The next two columns outline the evidence and how I interpreted the evidence.

Table 1. Research Questions and Method to Answer and Interpretation

Question	Method(s)	Evidence/Access	Interpretations
<p>Can a nonprofit university successfully apply SOX sections 301, 302, and 404?</p>	<p>Interviewed Pitt Controller, Internal Audit manager and their staffs. Requested decisional documents from the Controller’s office.</p>	<p>The case study’s unique strength is “its ability to deal with a full variety of evidence— documents, artifacts, interviews, and observations” (Yin, 2003a, p.8). The interviews, coupled with the decisional documents, will provide in-depth data about Pitt’s experiences and reasoning for implementing SOX.</p>	<p>I sorted the data based on common themes. Then the data was organized around key themes or central questions, and finally the data was examined to see how far they fit or fail to fit the expected categories based on SOX research. (Neuman, 1997, p.426).</p>
<p>What were the burdens associated with Pitt’s voluntary implementation of those SOX-modeled reforms?</p>	<p>Interviewed the Pitt Controller, the Internal Audit manager and their staffs. Requested documents from the Controller’s office.</p>	<p>The evidence consisted of the costs to hire additional staff, the costs to create a department dedicated to implement SOX 404, the cost of outsourcing the anonymous hotline, and other costs associated with implementing SOX.</p>	<p>Summarized the burdens needed to implement SOX, specifically Sections 301, 302, and 404. Documented the time it took to complete the requirements in a timeline. The specific costs were not available for the SOX implementation.</p>
<p>What benefits does Pitt attribute to its voluntary implementation of SOX Sections 301, 302, and 404?</p>	<p>Interviewed the Pitt Controller and the manager of Internal Audit. Observed department’s internal controls.</p>	<p>Evidence consisted of documentation of internal controls and providing insights into mechanisms to test those controls on a routine basis. In addition, several new tools were created to implement SOX.</p>	<p>Documented the benefits associated with the implementation by checking the findings with the case study participants to enhance validity. Reviewed new tools created, such as the web-based SOX Control Self-Assessment.</p>

3.10 LIMITATIONS OF THE METHODS

This is a single case study. There are no other universities being researched; therefore, I do not have another perspective to compare with Pitt's SOX implementation. I did not review implementation of these requirements at any other institution of higher education except the University of Pittsburgh. Also, my study does not address all requirements of SOX. It is limited to the Sections 301, 302, and 404 requirements.

3.11 CONCLUSION

Under the case study research approach used here, I relied on several techniques to gain an in-depth, multi-faceted understanding of how and why Pitt implemented SOX Sections 301, 302 and 404. Those research techniques included onsite observations, document review, responses to written questions, and in-person interviews.

4.0 RESEARCH FINDINGS

This case study examines Pitt's experience by tracing its decision-making with respect to its voluntary implementation of SOX-inspired reforms. Much of this research has come from interviews with the Controller, the Director of Internal Audit, the Manager of Internal Audit, the Manager of the Sarbanes-Oxley Department, and the Assistant Controller, who is the process manager over financial reporting. This case study provides a realistic perspective for other nonprofit colleges or universities that seek to adopt SOX-inspired reforms, especially those articulated in Sections 301, 302, and 404, which do not lend themselves to ready implementation in the context of nonprofit higher education. To adopt those three sections requires changes in governance practices and additional resources. Although it was not effortless, Pitt found efficient and strategic approaches to implement those three time- and resource-intensive reforms.

4.1 PITT'S EXPERIENCE

Pitt began its voluntary adoption of SOX-inspired standards in September 2002, shortly after the passage of SOX. The University's Board of Trustees (Board), through its Audit Committee, was

the driving force behind the SOX implementation at Pitt.¹ Many members of the Board at the time were familiar with SOX-compliance obligations because they also served on public company boards or the UPMC Board of Directors. Shortly after SOX's enactment, the Board's Audit Committee requested that Pitt's Director of Internal Audit analyze SOX and select which sections of SOX Pitt should implement as best practices.

The Audit Committee had several motivations for requesting that Pitt adopt SOX: to strengthen internal controls; to apply best practices; to get ahead in case SOX applied to large nonprofits, and to follow the lead of University of Pittsburgh Medical Center (UPMC), which was preparing to voluntarily comply with SOX. (UPMC started voluntarily adopting SOX in 2004 and became the first nonprofit to fully comply with SOX in 2006.)

The Audit Committee was not alone in encouraging Pitt to look for ways to voluntarily implement SOX-inspired reforms. In addition, senior management such as the CFO, Controller,

¹ The Board consists of 36 voting members, including 12 who are appointed by Commonwealth of Pennsylvania officials, and it oversees all charitable, scientific and academic activities at Pitt. Its responsibilities include advancing Pitt's purposes; promoting and protecting its independence, academic freedom, and integrity; and enhancing and preserving its assets for the benefit of future generations of students and society at large. The Board delegates general administrative, academic, and management authority to the Chancellor of the University. The Board retains ultimate responsibility for all University affairs, however, and reserves its authority directly in at least three areas: selection of a Chancellor; approval of major institutional policies, particularly those related to the fiduciary responsibilities of the Board; and definition of the mission and goals of the University.

The Board established the Audit Committee before SOX, through an original charter in 2000, as recommended by a 1999 blue ribbon panel of the New York Stock Exchange. The Audit Committee acts as liaison and communicator among the Internal Auditing department, the independent auditors, financial management and the Board of Trustees. "The Board of Trustees conferred upon the Audit Committee the power and authority to act on its behalf to appoint, compensate, and oversee the University's independent auditor and the retention of other external professionals as needed; to approve the University's financial statements and the Office of the Auditor General's annual audit; and to perform other duties as delineated in the Audit Committee Charter (University of Pittsburgh)." The Audit Committee periodically reports to the Board of Trustees on its activities. The Audit Committee has members with financial expertise, which complies with SOX.

Internal Audit Director, and the Audit Committee agreed to pursue adoption of some SOX reforms – even if just in the spirit of the law. The University’s external auditors at that time, the Deloitte & Touch accounting firm, also recommended SOX compliance and served in an advisory capacity.

Those recommendations, which were tailored to Pitt’s specific circumstances, were echoed at a general level by guidance issued from the National Association of College and University Business Officers (NACUBO). In a November 2003 report for best practices for institutions of higher education to implement SOX, NACUBO detailed how colleges and universities could address SOX-related issues, such as auditor independence, corporate responsibility, enhanced financial disclosures, accountability, certification of financial results by senior management, and Audit Committees. In addition to providing a general checklist of SOX-inspired reforms, NACUBO recommended that the governing boards of colleges and universities should carefully consider SOX to decide which reforms, if any, suit their situation.

In light of the recommendations from multiple sources and the general guidance provided by NACUBO, the Board embarked on a course of voluntary SOX compliance. At the June 24, 2004, meeting, the Board adopted certain “best practices” for auditing based on SOX and enhanced governance. The Audit Committee refers to the governance body that is charged with oversight of the organization’s audit and control functions. According to SOX, corporate governance is a system used to direct and control an organization. It includes relationships between, and accountability of, the organization’s stakeholders, as well as the laws, policies, procedures, practices, standards, and principles that may affect the organization’s direction and control (Committee on the Financial Aspects of Corporate Governance, 1992).

The Board modified its Audit Committee charter to conform to SOX requirements (which were not binding on Pitt). In addition, the Board made reforms with respect to its practices regarding the independent or external auditor. Going forward, Pitt would insist on pre-approval of all audit fees to conform to SOX. This decision triggered additional reforms -- for instance, because the Audit Committee was responsible for the appointment, compensation, and oversight of the external auditor, it would henceforth have the ability to engage an independent counsel as needed to review audits. In addition, to augment the Audit Committee's responsibility for reviewing internal complaints regarding audit problems, Pitt contracted with an independent company to operate a hotline for anonymous reporting of fraudulent activities. As far as the motivation for these reforms, John Elliott, Pitt's Internal Audit Director explained that "Technically, [SOX] does not apply to the University. So, why are we doing this? The primary reason is that there are certain relevant sections within the act that any organization would want to look at for potential improvements." There was also a forward-looking motivation to the implementation efforts: The process of complying with SOX took time, and, by starting early, Pitt could have a head start in case Congress extended SOX or modified SOX so that it applied to nonprofits.

Responsibility for further implementation of SOX-inspired reforms rested with the CFO (Controller)'s Office and the Internal Audit Department. Together, they took the lead in recommending an implementation plan. In February 2003, the Controller and the SOX Director, Vince Gavin, created the SOX Steering Committee, which sought to implement SOX-inspired reforms as a means of assessing and improving upon the University's financial controls and, in the process, minimizing financial risks. Five university officials were selected for the SOX Steering Committee based on their experience and expertise: Arthur Ramicone, CFO; Thurman

Wingrove, Controller; Vince Gavin, SOX Department Director; John Elliott, Director of Internal Audit; and Richard Korey, Manager of Internal Audit. The SOX Steering Committee used the NACUBO checklist as a general guide and then began to tailor the reforms to the specific circumstances at Pitt.

Strategically, the SOX Steering Committee sought to build upon pre-existing governance, controls, and practices to voluntarily implement SOX-inspired reforms. The SOX Steering Committee began by evaluating whether any aspects of the SOX reforms were already in place. According to the Director of Internal Audit, many of the requirements imposed by SOX were already largely in place and any incremental costs in modifying those pre-existing requirements to be SOX-compliant were not significant. For example, Pitt had pre-existing practices in place related to reporting. Specifically, Pitt already had an internal audit department that could help in the implementation and ongoing support of SOX programs. Section 301 requires Audit Committees to create a channel, through whistleblower hotlines, for employees to submit confidential, anonymous concerns regarding questionable accounting or auditing matters (NACUBO, 2003). While Pitt previously had a hotline for reporting fraud, waste and abuse, that hotline was monitored and run by the Internal Audit Department. As another example of leveraging its pre-existing practices, SOX 301 requires a public company's board of directors to have an Audit Committee that exercises direct control over the external auditors (NACUBO, 2003). Pitt already had an Audit Committee of independent directors; the Board created the Audit Committee in 2000 to ensure the effectiveness of Pitt's accounting, internal controls, and audit functions (Phillips et al., 2016). Also, the Audit Committee has a few financial experts; another requirement of SOX is to have one financial expert on the Audit Committee (Louwers et al., 2015).

Another instance in which Pitt had pre-existing practices in place relates to the requirement in Section 404 for an annual report of internal controls. Because Pitt is a recipient of federal grant awards, the institution had already received an external audit on the financial statements and review of internal controls through the Single Audit Act. The Single Audit is a rigorous organization-wide audit or examination of an entity that expends \$750,000 or more of federal assistance (commonly known as federal funds, federal grants, or federal awards) received for its operations (Reck et al., 2016). The University's Single Audit provides assurance to the federal government that an independent external source (the CPA) reports on Pitt's financial reporting.

After leveraging the pre-existing structure, the SOX Steering Committee evaluated the remaining sections of SOX that were not in place in order to ascertain whether Pitt should implement any of those requirements. After lengthy discussion and analysis, the SOX Steering Committee initiated a project in 2004 to comply more fully with three additional key components of SOX: Sections 301, 302 and 404. To achieve that goal, Pitt had to take several additional steps, including to review key financial reporting governance areas, to develop an entity-wide project plan to comply with SOX, to review entity-level controls that impact internal controls over financial reporting (ICOFR), and to initiate the ICOFR evaluation program required by Section 404. Because Pitt's decision to implement SOX was voluntary, there were certain components of these three key critical sections of SOX that Pitt chose not to implement fully. Because those three key sections are some of the most substantive, and least readily adaptable to the context of nonprofit higher education, Pitt's decision-making and implementation process for each of these three key sections is quite insightful.

As far as the division of labor for implementing reforms inspired by Sections 301, 302, and 404, that fell to the Internal Audit Department and the Controller's Office due to their pre-existing responsibilities for assessing and attesting to key financial controls and ensuring their implementation. The Internal Audit Department was responsible for implementing Section 301, and the Controller's Office took the lead in implementing Sections 302 and 404. In addition, within Internal Audit, one manager was responsible for the assessments of the SOX work done in compliance with 404, and he had a staff of three to four people dedicated to that effort.

In January 2005, the SOX Steering Committee created a new office, the Sarbanes-Oxley Project Management Department (SOX Department), which reported to the Controller (see Figure 3). The SOX Department initially consisted of three people, a director and two staff. The director was a long-time University employee with experience in financial reporting, taxes, and purchasing. He was selected due to his extensive background and knowledge of the University. The two staff were recruited from outside the University, and each had SOX implementation experience with their previous employers. The total resources to implement Sections 302 and 404 consisted of a manager and two staff, as noted above, along with a small supply and expense budget. The three members of the SOX Department were tasked with developing an approach to implement Sections 302 and 404 and following through with that implementation. The following figure (Figure 3) outlines the hierarchical structure of SOX work. The Board of Trustees oversees the Chancellor and the Audit Committee. The Audit Committee is an independent subcommittee created out of the Board of Trustees, which oversees the Internal Audit Department and the external auditors. The Chancellor is in charge of the Controller's office and the Internal Audit department, which implemented SOX Sections 301, 302 and, 404. The Internal Audit Department reviews the work of the SOX department, including SOX

Sections 301 and 404. Finally, the Internal Audit Department attests to the internal control reporting for the University in compliance with SOX Section 404.

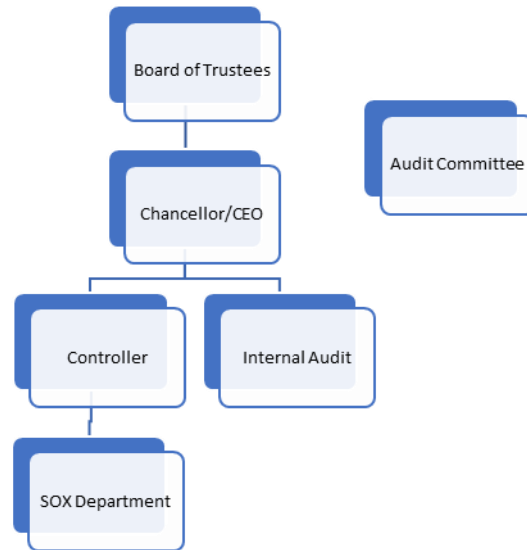


Figure 3. Hierarchy of University of Pittsburgh SOX work (University of Pittsburgh, 2018)

The SOX Department staff attended workshops and conferences and reviewed research on the subject in order to become experts on implementing SOX. In addition, they consulted with the external auditors, Deloitte & Touché (D&T), including half-day sessions in which the SOX department shared their draft documentation and asked for D&T’s feedback. D&T was used as a sounding board early in the process to ensure that the SOX department’s approach was sufficient. D&T reviewed Pitt’s documentation for procedures and processes and gave feedback on where they thought the institution was going too far or not far enough.

The SOX department developed a novel scoring system to evaluate the internal controls and determine which of them should be considered key controls. Identification of a key control is a matter of professional judgement. Usually a key control is an internal control that is required to provide reasonable assurance that material errors will be prevented or quickly detected; it covers a risk of material misstatement or error. The SOX department also looked into several

documentation tools and ultimately elected to use Microsoft Office tools such as Word, Excel, and Visio to create flow charts and risk control matrices.

The SOX Department reviewed employees' access to data via Pitt's financial management systems, known as ORACLE. This was one of the key areas that benefited through the tightening of controls around access to financial statement files as well as access to the Oracle general ledger (PRISM). ORACLE access is surveyed every year, resulting in the removal of any unnecessary access to the system or related functionality.

The Audit Committee has been kept apprised of the SOX implementation project since its inception, including all of the reforms that Pitt has implemented to date. The implementation decisions made with respect to those three key SOX Sections are detailed below.

4.1.1 Additional reforms inspired by SOX Section 301

Section 301 requires the establishment of a confidential complaint mechanism. This approach is commonly implemented through a fraud hotline for employee concerns about accounting, internal controls, or auditing matters (NACUBO, 2003). The Audit Committee strongly encouraged the creation of an anonymous hotline and tasked Internal Audit with implementation. Pitt previously had an internal hotline mechanism through the Internal Audit website, but it was not anonymous. The Audit Committee determined that it was important that the hotline be anonymous as SOX required, but the Audit Committee also wanted the hotline to be independently managed by a third party. To carry out that vision, which went above and beyond the requirements of Section 301, Internal Audit conducted extensive research and received demonstrations by several vendors that could provide an anonymous hotline. Ultimately, as the result of a competitive bid, Internal Audit contracted with Global Compliance to implement the

University's "AlertLine" in 2004. Under the terms of the contract, the cost of AlertLine cannot be disclosed, but the cost is minimal. The most costly part of the anonymous line involves the resources and personnel required year round to follow up on the tips received through the hotline.

All University employees have access to AlertLine; it is available 24 hours a day, seven days a week. AlertLine is not a replacement for, but rather a supplement to traditional channels for grievances such as Human Resources and other departments, according to Pitt's Director of Internal Audit. Employees are encouraged to report financial discrepancies, inappropriate behavior, research compliance issues, and other problems through AlertLine, and callers have the option of remaining anonymous. AlertLine reports are handled by communication specialists employed by Global Compliance, an independent, third party vendor. The specialists ensure that reports are turned over to the appropriate University officials for follow-up, investigation, and resolution.

All AlertLine reports are received and addressed by the Internal Audit department. Depending on the nature of the issue, another department may be assigned to investigate a report. Those departments include the Office of Human Resources, Office of Research Conduct and Compliance, and the Office of University Counsel. For example, if the report deals with human resources related matters, then Human Resources will investigate and report back to Internal Audit. Regular reports of AlertLine activity are made to the Audit Committee by the Internal Audit director.

Internal Audit promotes AlertLine through email, posters, training, and newspaper advertisements. New employees are taught about fraud and AlertLine during their orientation training. In addition, Internal Audit publishes advertisements in the University Times faculty

and staff newspaper. Finally, posters to promote AlertLine are placed in common areas at Pitt. To further maintain the confidentiality of AlertLine reports, Internal Audit attempts to manage reports to facilitate compliance with the Pennsylvania whistleblower law, so that those protections would apply to any whistleblowers.

By setting up AlertLine, Pitt, although not obligated under SOX, nonetheless complied with Section 301. It did so because upon review, Pitt officials and trustees determined that Section 301 was a sound reform, and therefore Pitt modified its hotline to comply. As the director of Internal Audit explained to the Board at its June 25, 2004 meeting, “We thought the provisions of SOX were appropriate as far as best practices go and overall governance And the hot line is a mechanism for employees to report concerns.” Interestingly, AlertLine was designed to serve as a hotline only to report financial problems, but after considering the range of employee concerns, its scope was broadened to account for those additional concerns. Thus, the freedom to implement Section 301 reforms voluntarily yields an interesting result in Pitt’s case: Not only did Pitt adopt the Section 301 best practice, but Pitt also went further to expand the range of issues that could be reported to AlertLine.

Table 2 on the following page compares the SOX Section 301 requirements with the NACUBO recommendations for implementing Section 301 at colleges or universities (NACUBO, 2003), along with Pitt’s voluntary implementation of Section 301 requirements.

Table 2. Section 301 Checklist - Comparison of NACUBO Recommendations and Pitt's Reforms

SOX Section 301	NACUBO Recommendations for 301	Pitt's Reform
The Audit Committee shall be directly responsible for the appointment, compensation, and oversight of the work for any registered public accounting firm employed by the company.	Institutions that do not have an Audit Committee should assign or create one from the Board of Trustees.	Pitt had an Audit Committee
The public accounting firm should report directly to Audit Committee.	Audit Committee select auditors and monitor their performance.	Pitt's Board of Trustees modified its Audit Committee charter to conform to SOX.
Each member of the Audit Committee should be a member of the board of directors and shall be independent.	Independent Audit Committee.	It is a committee of Board of Trustees
The Audit Committee shall establish procedures for: a. The receipt, retention, and treatment of complaints received by the company regarding accounting, internal controls and auditing matters. b. The confidential, anonymous submission by employees of questionable accounting or auditing matters.	Establishment of Confidential Hotline.	Pitt created anonymous hotline in 2003 via Global Compliance, an independent, third party vendor.
The Audit Committee shall have the authority to engage independent counsel or other advisors, as necessary to carry out its duties.	Audit Committee Charter should contain necessary authority.	Board of Trustees modified its Audit Committee charter to conform to SOX.
Each company shall provide appropriate funding as determined by the Audit Committee for payment to the public accounting firm and any advisors employed by the Audit Committee.	Charter should specify appropriate funding for the Audit Committee.	Board of Trustees modified its Audit Committee charter to conform to SOX.

4.1.2 Additional reforms inspired by SOX Section 302

Section 302 imposes direct responsibility on the CEO and CFO for the accuracy, documentation, and submission of all financial reports as well as the internal control structure to the SEC (NACUBO, 2003). In the context of higher education generally, and Pitt specifically, Section 302 would seem to impose direct responsibility over those matters upon Pitt's Chancellor. Rather than follow that approach, which Pitt determined would serve no useful purpose, Pitt elected not to have a formal Chancellor sign-off on the audited financial statements; instead, Pitt adopted a hybrid Section 302 process that complied with the NACUBO recommended course of actions for Section 302.

Under that hybrid approach, the Internal Audit Department developed 302 questionnaires for completion and signature by the deans and senior administrators of each department. Annually, the SOX Department sends out 59 302 certifications in total (44 to decentralized responsibility centers and 15 to departments managed by the CFO's area). These 302 questionnaires address areas necessary to provide support for the audit representation letter. The audit representation letter (signed by the Chancellor, CFO, and Controller) effectively serves as management's acknowledgment of its responsibility to maintain an adequate system of internal controls. However, in order for the Chancellor and CFO to be able to attest to the adequacy of the system, it is important for senior officers (e.g., deans and administrative unit leaders) to attest to the internal control structures in their areas. Therefore, the Internal Audit Department worked with the Controller and the external auditors to develop 302 questionnaires for responsibility center heads such as deans and senior administrators. The SOX department allows the academic and administrative units to determine who in their department will review and help them complete the 302 questionnaire to make sure that the process is adequately completed.

Ultimately, Pitt requires a dean's signature for the audited financial statements in the academic units and a senior administrator signature in the administrative units. The department certification provides verification on the underlying numbers and controls (NACUBO, 2003). The SOX Department requests that the responsible departments/centers complete the 302 certification before the end of each fiscal year.

Because the 302 requirements were tied specifically to the organizational structure of publicly traded companies, the NACUBO recommendations for reforms for colleges and universities is also an important reference point. NACUBO recommended that institutions of higher education document their financial reporting processes and identify and evaluate the adequacy of controls over financial reporting and other financial disclosures (NACUBO, 2003).

To gain an understanding of the financial reporting process, the SOX department conducted a walk-through of the process from beginning to end. A walk-through consists of direct observation by an auditor of a key internal control from the beginning of the process to the end, when the employee shows how the process is completed. The SOX department performed walk-throughs to achieve the following objectives: to confirm their understanding of how these transactions are initiated, authorized, recorded, processed and reported; and to verify that they have identified the appropriate risks that could materially affect relevant financial statement assertions related to significant accounts. After performing the walk-through, the SOX department documented the financial reporting process in the flow chart seen in Figure 4.

For each walk-through, the SOX department must document the following items: the transaction selected for walkthrough, individual(s) with whom they confirmed their understanding, and description of the walkthrough procedures performed in order to confirm their understanding of the process. The walk-through process helps the SOX department to

understand the Financial Reporting Department's controls and procedures and to be able to identify control deficiencies in the process. The deficiencies are important points at which a necessary control is missing or not designed to detect or prevent error.

See Figure 4 on the following page for the flow chart for the financial reporting process.

Financial Reporting - Overview

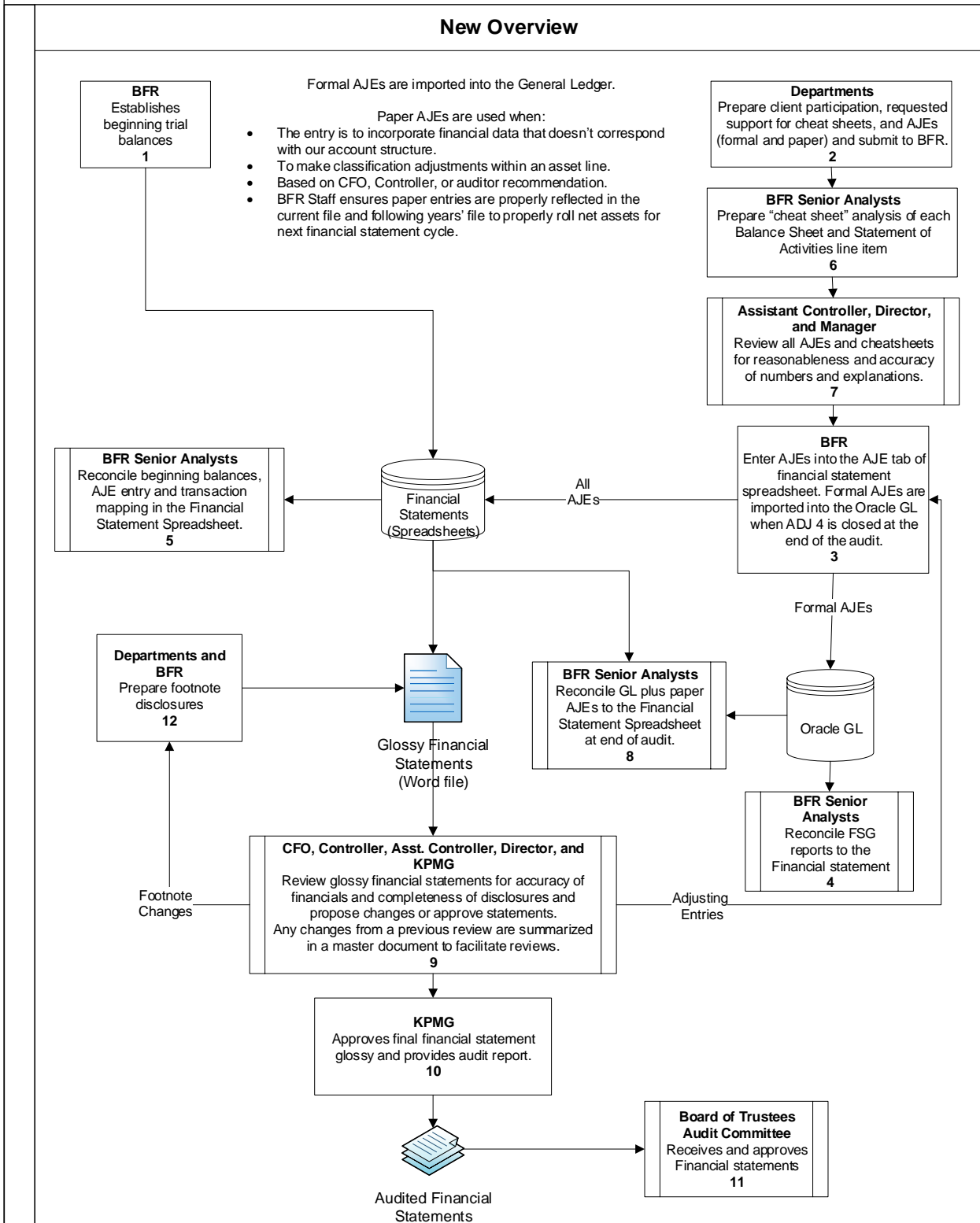


Figure 4. Flow Chart (University of Pittsburgh SOX Department)

The SOX Department conducted the first cycle of the financial reporting process review from 2006 through 2007. At that time, the process owner was the Assistant Controller (who used to be the Director of Budget and Financial Reporting), and she was the main point of contact for the SOX Department on the financial reporting process. As the process owner, she was responsible for assisting with the development of flow charts and risk assessments/control matrices. To identify the key internal controls, the process owner performed analysis of the existing controls for each financial statement line item. To expedite the process and split up the workload, several members of the Financial Reporting Department also participated in the process.

The initial phase of the SOX work took the full department to complete the identification of key controls, documentation, and testing. After the team documented the narrative and flow chart of the key internal control processes over financial reporting, the SOX Department identified control weaknesses in the processes based on the walk-through. The process owner was in charge of ensuring that remediation efforts were developed and implemented to eliminate the control weaknesses identified by the SOX Department.

The Financial Reporting Department had control deficiencies after the first assessment due to 1) unauthorized personnel having access to reports financial reports and spreadsheets and 2) missing spreadsheet development controls. Those deficiencies have been remediated, and there have been no deficiencies in the financial reporting process since. The Financial Reporting Department also maintains strict control around access to financial statement files and the Oracle general ledger, which eliminates unauthorized access and allows for segregation of duties, an internal control that involves separating employees' duties so that the work of one person can be used to check the work of another person (Phillips et al., 2016). The Financial Reporting

Department also does a significant amount of financial analysis throughout the year to detect accounting mistakes or variances, as well as a great deal of standardized and monthly reporting, to ensure adherence to budget limitations on a University-wide basis.

Table 3 compares the SOX Section 302 requirements with the NACUBO recommendations for implementing Section 302 at colleges or universities (NACUBO, 2003), along with Pitt’s voluntary implementation of Section 302 requirements.

Table 3. SOX Section 302 - Comparison of NACUBO Recommendations, and Pitt’s Reforms

SOX 302	NACUBO Recommendations	Pitt’s Reform
The CEO and CFO shall certify along with the annual audit report that they have reviewed the report.	The Act extends current audit representation letter responsibilities.	Pitt’s Chancellor CFO, and Controller sign representation letter.
The report does not contain any untrue statement of material fact or omission of a material fact that makes the statement misleading. The financial statements present in all material respects the financial condition and results of operations.	Business units responsible for financial reporting should be clearly defined. Institutions that are decentralized should consider implementing ‘sub-certification’ requirements from financial leaders responsible for the financial results of units, departments, or schools.	Pitt requires each dean or senior level official to review and sign off on 25 internal control questions related to his or her department to sub-certify assurance on the underlying numbers and controls through these 302 questionnaires.
They are responsible for establishing and maintaining internal controls for the adequacy of internal controls over financial reporting and financial disclosures.	Institutions should start documenting their financial reporting process, identifying and valuating the adequacy of controls over financial reporting and other financial disclosures.	The SOX Department worked with the director of budget and financial reporting to create a risk assessment and develop flow charts for key controls over financial reporting. Pitt maintains strict controls around spending of the discretionary budget, including obtaining appropriate approvals. Pitt also maintains strict controls around access to financial statement files and the Oracle general ledger.
They have disclosed to the auditors and the Audit Committee all significant deficiencies and	The Audit Committee should make periodic inquiries of financial	Annually the Director of Internal Audit updates the Audit Committee on Internal Controls.

SOX 302	NACUBO Recommendations	Pitt's Reform
material weaknesses in the internal controls.	executives on the adequacy of internal controls.	
They have indicated in the report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls after the date of their evaluation.	The Audit Committee should make periodic inquiries of financial executives on the adequacy of internal controls.	Annually the Director of Internal Audit updates the Audit Committee on internal controls.

4.1.3 Additional reforms inspired by Section 404

By requiring management’s assessment of internal controls and attestation of internal controls by an external auditor, Section 404 is the most complicated, most contested, and most expensive SOX requirement to implement. That is because Section 404 requires management to document and evaluate the design and operation, and report on the effectiveness, of its internal controls over financial reporting, commonly referred to as its ICOFR. As explained by the Public Company Accounting Oversight Board (PCAOB), such a review requires a thorough examination of the process through which an individual transaction influences an organization’s financial statements:

In an audit of ICFR, the auditor is required to “walk-through” at least one transaction within each significant class of transactions. A “walk-through” represents a “soups-to-nuts” review of how a transaction begins (e.g., with a customer order) to how it is recorded on the company’s books and, finally, to how the transaction ultimately flows through to the financial statements. When performing such a walk-through, the auditor gains first-hand knowledge of the points in this process at which material misstatements could occur. This understanding also allows the auditor to design a more effective strategy for auditing the financial statements than if no walk-throughs had been performed (PCAOB, 2003).

Similar to Section 404, NACUBO recognized that identifying, designing, and maintaining controls and procedures that safeguard assets and minimize risk is a sound business practice.

The most challenging aspect of implementing Section 404 was that Pitt did not have guidance or documentation for nonprofit universities' key processes and key internal controls. Therefore, Pitt could not use the guidance issued by the SEC because there was no example of key controls for nonprofit accounting for institutions of higher education.

For other Section 404 reforms, Pitt found that the spirit of the reform could be satisfied without formal adherence to the strict Section 404 requirements. For instance, Pitt elected not to have an external audit firm do the attestation due to cost considerations. According to NACUBO, a positive assertion on controls would require a significant sustained effort and would require the external auditor to perform an attestation on internal controls, which would be expensive and time-consuming (NACUBO, 2003). Instead, Pitt's Internal Audit Department provides an attestation of the adequacy of the work done by the SOX Department for Section 404. Nonetheless, Pitt has implemented the spirit of Section 404 by working with central administrative departments to identify, document/update, and assess key operating controls that have a major impact on financial reporting.

To comply with that 404 reform, Pitt started by reverse mapping its financial statements and identifying the major central business processes that drove Pitt's financial data and, ultimately, the audited financial statements. Reverse mapping required the SOX department to review every number in the audited financial statements and to determine what business process drove the development of each number.

In undertaking that task, the SOX Department analyzed financial statements and identified 16 key central business processes that drove the audited financial statements. To

define and evaluate its internal controls, Pitt looked to the Committee of Sponsoring Organizations (COSO), a joint organization consisting of representatives from the Institute of Management Accountants (IMA), the American Accounting Association (AAA), and the American Institute of Certified Public Accountants (AICPA), the Institute of Internal Auditors (IIA), and Financial Executives International (FEI) to create an internal control framework. Since 1992, COSO has published periodic updates to their internal control framework as guidelines for creating and implementing internal controls these updates serve as the basis for the auditing standards developed by PCAOB (SEC, 2009).

The next step was to identify how each of those 16 central business processes could result in material misstatements.² Once those risks of material misstatements were identified, the SOX Department then identified key internal controls to mitigate those risks, and rated and ranked those controls based on a scoring system to identify the key controls. That review determined that each of the 16 key central business processes might have one to five key internal controls.³

² Pitt followed a systematic risk identification process in reviewing how its central business processes could result in material misstatements. Potential risks were identified and then evaluated using a scoring system. The risks were scored based on 1) the external financial reporting objectives; 2) the process that generates the transactions reported on the financial statements; and 3) their likelihood, materiality, and fraud impact. Those risks exceeding a certain score were identified as key risks, and Pitt worked to ensure that adequate controls were in place to mitigate or eliminate those risks.

³ There are two sets of controls developed for each risk that requires a key control. The first is the expected control, or the control that is likely to be available and in place. The second is the actual control that is identified by walking through the process and observing the control to develop the flow charts. The flow charts depict the process from beginning to end and documents the internal controls. When there is a significant difference between the expected and actual identified controls that was identified as a design gap, which constitutes a control deficiency and is listed as a remediation item. The deficiency is categorized as a control deficiency, significant deficiency, or material weakness. It is included in the report to the SOX Steering Committee and communicated to the responsible department for remediation. Any deficiencies are reported by

The SOX Department then conducted a walkthrough of the key internal controls to observe the processes. Finally, the SOX Department documented the process in a flow chart from beginning to end. Figure 5 below outlines the initial process the SOX department completed to identify, document, and test the key internal controls. (For example, the payroll process has numerous detailed flow charts, while the Commonwealth Appropriation process has very few, given its relative simplicity). The SOX Department highlighted key controls in the documentation, both in the flow charts and in the accompanying risk control matrix. The following figure (drawn from information provided by the SOX Department manager and the Controller) outlines the process the SOX department completed for the initial round of the identification, documentation, and testing of key internal controls.

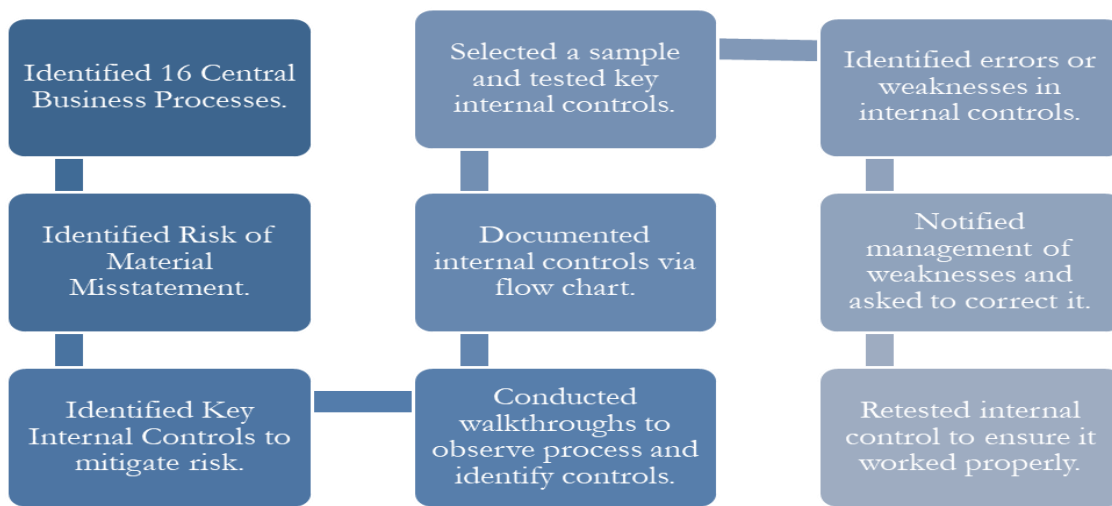


Figure 5. 404 Initial Testing of Key Internal Controls (University of Pittsburgh)

As part of its assessment, the SOX Department documented the controls and then selected a sample of transactions to determine if the controls are working as intended. In the event that the controls were not being implemented properly, the SOX Department made the

the SOX Department to senior level management and are tracked by the SOX Department to ensure that deficiencies are remediated.

supervisors aware of those weaknesses to correct. After testing, if the SOX Department identified control weaknesses or deficiencies in the process, it would create a remediation log of any control deficiencies and follow up with departments/units to ensure that process changes were implemented. Most of the testing is on centralized processes that are done at the main campus; the SOX Department does not perform any testing at the branch campuses. For example, the student billing process is run centrally, so any issues would be detected centrally at the main campus.

Once the SOX Department completed its assessment of a process, the Internal Audit Department reviewed and tested those key operating controls to assess current operating effectiveness. Unlike Section 404, which requires the testing and attestation by an external auditing firm, Pitt chose to have the Internal Audit Department perform the assessment and attestation. On an annual basis, Internal Audit reviews the SOX Department's work and re-tests components when necessary, and the Director of Internal Audit provides an update to the Audit Committee. Also, if the Internal Audit Department identified a deficiency as part of an attestation, it is brought to the attention of the SOX Department to work with management to address the control deficiency.

As a requirement of SOX, Pitt maintains internal controls through policies and procedures, internal audits, the SOX assessments, and the external audit. Initially, it took about five years to cycle through all of the central business processes. By May 2011, Pitt had completed its first 404 cycle assessment over internal controls. Since that time, Pitt has tried to cycle back through each area of internal controls every two years to make sure the controls are still working properly. Pitt decided on a two-year cycle because it is a reasonable time frame to

be able to cycle through all 16 key central business processes and test the internal controls related to those 16 processes.

Notably, Section 404 requires that registered external auditors must attest to the accuracy of management's assertion that internal accounting controls are in place, operational, and effective, but Pitt declined to adopt that practice. Internal Audit Director Elliott explained, "For our purposes, we're [going to] leave it as an internal process . . . we've developed a series of questions, about 30 in all, about the financial matters related to [University reporting] areas." Thus, instead of paying an external audit firm to review and attest to internal controls, Pitt used a questionnaire known as the SOX Control Self-Assessment because many important key financial control procedures reside in the decentralized units overseen by departmental fiscal administrators. Under that approach, the SOX Department sends 54 SOX Control Self-Assessments (44 to decentralized responsibility centers and 15 to departments managed by the CFO's area). Through the SOX Control Self-Assessment, the unit heads report annually on financial activities in their areas; then the SOX department forwards those results to the central administration to supply information to the independent auditor.

Internal Audit created this SOX Control Self-Assessment tool to allow decentralized units to document their internal controls. That tool is a web-based application and was developed for fiscal administrators in order to assess internal control compliance in the areas they oversee. The SOX Control Self-Assessment contains 12 categories of questions pertaining to financial processes that normally exist in schools/departments/divisions and other decentralized units throughout the University.

The SOX Control Self-Assessment process has several benefits. First, it provides a certain level of assurance that key procedures and controls are implemented and working within

the unit being assessed. Second, it identifies possible control weaknesses so that action can be taken to strengthen the process and reduce negative business risks. Third, it provides a training tool for school/department/division administrators. Fourth, it serves as an excellent resource when turnover occurs and new staff can be trained using the SOX Control Self-Assessment.

Table 4 compares the SOX Section 404 requirements with the NACUBO recommendations for implementing Section 404 at colleges or universities (NACUBO, 2003), along with Pitt’s voluntary implementation of Section 404 requirements.

Table 4. Section 404 Requirements, NACUBO Recommendations and Pitt’s Reforms

SOX Requirements 404	NACUBO Recommendations	Pitt’s Implementation
Each annual report shall contain an internal control report which:	A good business practice would be to start planning how to conduct an internal control assessment. Use the COSO model of internal control framework as a guide.	Pitt used the COSO framework to conduct internal control assessment.
States the responsibility of management for establishing and maintaining an adequate internal control structure and procedures for financial reporting.	Begin by doing a risk assessment and documenting key financial processes. The results of the internal control assessment should be tested to ensure compliance.	The process started with reverse mapping Pitt’s financial statements and identifying the major central business processes that drove Pitt’s financial data and ultimately the audited financial statements. SOX Department did a risk assessment to identify key controls SOX Department tested that the key controls identified were working properly.
Contains an assessment, as of fiscal year end, of the effectiveness of internal control structure and procedures of the company for financial reporting.	Institutions with Internal Audit departments should consider using them to report on internal controls to the Audit Committee and to management.	Internal Audit provides an attestation of the adequacy of the work done by the SOX Department for Section 404. Annually Internal Audit reports to the Audit Committee the results of the attestation. Internal Audit created SOX Control Self-Assessment to allow decentralized units to review and document their internal controls annually.
The public accounting firm shall attest to and report on	Does not recommend external auditor attestation or audit of	Internal Audit provides an attestation of the adequacy of

SOX Requirements 404	NACUBO Recommendations	Pitt's Implementation
the internal control assessment made by management.	internal controls. An alternative is for management to provide the assertions and testing without the external audit attestation.	the work done by the SOX Department for Section 404. Annually, Internal Audit reports to the Audit Committee the results of the attestation.

4.2 CONCLUSION

The team work by the SOX Steering Committee, Internal Audit department and the SOX department facilitated the successful implementation of SOX throughout the University. The University used unique ways to meet the spirit of SOX sections 301, 302, and 404 without overburdening the University. Implementing SOX enhanced the University's internal control processes and procedures and enhanced the University's control environment.

5.0 RESEARCH IMPLICATIONS

The purpose of this case study is to detail a decision-making and implementation process for the voluntary adoption of SOX-inspired reforms at nonprofit colleges and universities. To explore this topic, the research focused on Pitt's 15-year experience in voluntarily implementing reforms inspired by SOX, with particular attention to those key Sections 301, 302, and 404. Those sections merit special attention because they require substantial reforms, and they do not readily lend themselves to the context of nonprofit higher education; nonetheless, those sections provide valuable assurances regarding an institution's financial integrity and internal controls. Because Pitt voluntarily chose to implement these sections, it served as an incubator for efficiency and innovation in adopting the spirit of these reforms, while not having to implement these sections rigidly. Examining how Pitt used flexibility and creativity provides several insights into not only the role of SOX reforms in higher education but also more efficient methods of attaining SOX's goals.

The most fundamental conclusion from this case study is that Sections 301, 302, and 404 can be implemented successfully over time in the context of nonprofit higher education, with some adaptation. This conclusion is demonstrated by two components of Pitt's experience. First, the burdens of adopting those sections in spirit – although time- and resource-intensive at the outset – were not excessive, and those burdens decreased over time. Second, while the benefits of adoption of these SOX reforms are difficult to quantify, the voluntary implementation

of SOX-inspired reforms has led to an improved culture of accountability university-wide. The findings of this case study nonetheless address the feasibility and burdens associated with implementing SOX-inspired reforms qualitatively.

5.1 RESEARCH QUESTION 1: APPLYING SECTIONS 301, 302, AND 404

Research Question 1. Can a nonprofit university successfully apply SOX key sections 301, 302, and 404?

Key Finding #1

Yes, it is possible for institutions of higher education to implement successfully reforms inspired by SOX key Sections 301, 302, and 404. As the experience at Pitt over the past 15 years demonstrates, a nonprofit university can successfully implement the spirit of the most demanding SOX reforms. A key to being able to do so is leveraging pre-existing rules, controls, and practices so that those can be modified either to be SOX-compliant or to fulfill the spirit of a specific SOX reform. Not every section of SOX can be implemented, but that is due in large part to the differences between nonprofit colleges and universities and publicly traded companies. Nonetheless, there are proxies that nonprofit colleges and universities can use to provide similar assurances that SOX requires of publicly traded companies.

5.2 RESEARCH QUESTION 2: BURDENS ASSOCIATED WITH IMPLEMENTATION

Research Question 2. What were the burdens associated with Pitt’s voluntary implementation of those SOX-modeled reforms?

Key Finding #2

Pitt faced obstacles, costs, and burdens in implementing SOX-inspired reforms. The major obstacle in implementing SOX was that Pitt had to spend significant time and effort trying to figure out how to do so in the nonprofit context, where there was no published guidance. The Controller stated that he wished they had not spent so much time trying to come up with the appropriate documentation methodology. Pitt did not have a guide to follow, as they did not have a nonprofit model for higher education for SOX implementation. If that burden – and the accompanying uncertainty – were minimized through guidance documents and examples, then that would dramatically reduce the initial costs (which are the greatest) of voluntarily implementing SOX, and could lead other nonprofits to do so. During the initial implementation process, the process owners had to review the key controls that were identified by the SOX department. Getting through the initial documentation was challenging and time consuming. It required a lot of thought about Pitt’s processes and whether appropriate controls were in place, and required much initial documentation (flow charts and narratives). In the end, the process was time consuming during the first review but relatively simple in the subsequent reviews.

Determining the appropriate style, type, and detail of documentation took too much time and effort. Pitt had several “fits and starts” and had to refine and revisit their documentation several times. At first Pitt started doing narratives but found them cumbersome: They had various styles of flow charting and tried several types of matrices to document risks and controls.

Other than addressing this challenge, they would not change a great deal about their implementation.

In initially implementing the SOX-inspired reforms, Pitt experienced costs to create the new SOX Department, such as the costs of hiring two new staff and accompanying office charges. Once implementation was complete, the same level of staffing was not required, and the department currently consists of one SOX manager. This is consistent with the SEC finding that compliance costs tend to decrease steadily after the first-year of compliance—implying that Section 404 compliance entails start-up costs that dissipate over time (SEC, 2009). However, the specific costs of implementing each major phase of the SOX-inspired reforms cannot be approximated for Pitt because Pitt used resources it already had. Pitt did an excellent job of leveraging resources such as using existing policies and personnel (e.g., Internal Audit) to implement SOX Sections 301, 302, and 404.

Implementing Section 404 was the most challenging and time consuming. The University knew it did not want to implement Section 404 fully by hiring an external auditor to attest to the soundness of management's assessment and report on the overall financial control system (Wagner & Dittmar, 2006) and incur the related costs of external audit. The time and effort to get through the initial documentation was challenging and time consuming for everyone involved. Also, the SOX department had to educate the University community and ensure that they completed paperwork such as 302 questionnaires and the Control Self-Assessments (CSAs). Initially, staff did not want to take the additional time to fill out what they perceived as unnecessary paperwork, such as documentation of controls and procedures within their departments. It was challenging to get buy-in from some areas in the University and to make

process owners aware of the risks of control deficiencies (and why those risks needed to be addressed).

The SOX Department's biggest finding prior to implementing SOX was a lack of documentation throughout the departments on processes and procedures for internal controls. Specifically, in some instances they found that controls were not in place, not being followed, or deficient. By 2010-2011, Pitt had completed three two-year cycles of internal control testing. This included Internal Audit reviews of the SOX Department's work and re-testing components when necessary.

5.3 RESEARCH QUESTION 3: BENEFITS OF IMPLEMENTATION

Research Question 3. What benefits does Pitt attribute to its voluntary implementation of SOX Sections 301, 302, and 404 to the University?

Key Finding #3

While no existing methodology enables the quantization of SOX compliance into dollar amounts (Coates, 2007), Pitt did experience several positive outcomes resulting from its voluntary implementation of SOX-inspired reforms. It is notable that Pitt's efforts have led to a broader culture of accountability. The Internal Control documentation has been used as a guide to train employees about the policies and procedures within departments. For example, the Financial Aid Office has asked the SOX Department to present the flow charts in order to provide the "big picture view" of the key internal control processes within their department. Also, the overview of internal controls and any detailed flow charts are shared with the external auditors to use in their audit of the University's financial statements and the Single Audit. Over

time, the use of narratives was considered duplicative when using flow charts; therefore Pitt does not use the narratives anymore and focuses on the flow charts. Thus, even though the SOX Department implemented reforms that were related to Section 404, those resulted in the identification and reduction of identified control deficiencies throughout the university.

Figure 6 on the following page provides a summary of the benefits derived from implementing SOX Sections 301, 302, and 404. Specifically, Pitt reports having a greater awareness of the importance of internal controls, enhanced documentation, updated policies and department “desk procedures,” tighter controls over access to financial data, improved reconciliations, and greater accountability. Also the SOX team developed new tools such as a Balance Sheet Reconciliation Guide and new University policies on internal controls. These tools help to maintain the strong internal control environment and assist the staff in doing their job to ensure proper internal controls. The benefits come with another the culture change in terms of attitudes and values pressed by top executives and directors. This finding coincides with research indicating that university leadership needs to establish a fraud prevention environment through established internal controls processes and procedures (Louwers et al. 2013). The attention to internal control reform has increased recognition of the importance of method, transparency, and care in the creation and execution of Pitt’s internal control policies and procedures. This, the hardest to quantify of the effects of Pitt’s reforms, may be one of the most significant because a strong control environment, such as the one Pitt cultivated, substantially reduces fraud risk (Wagner & Dittmar, 2006).

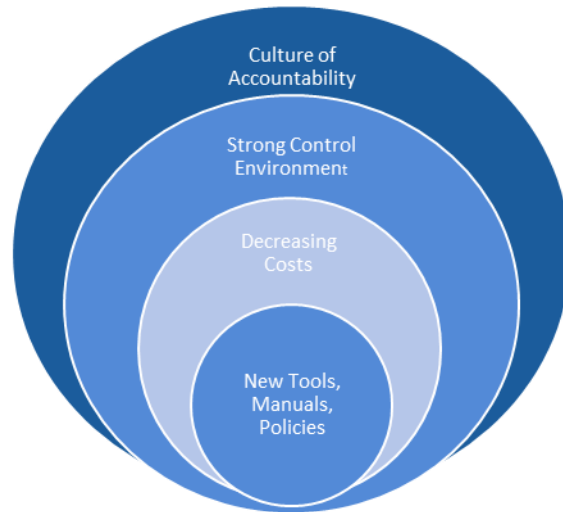


Figure 6. Benefits of SOX Sections 301, 302, and 404 (University of Pittsburgh, 2018)

By voluntarily implementing SOX, Pitt enhanced a culture of accountability and strong control environment. In fact, Pitt has seen greater awareness of the importance of internal controls, better documentation, improved policies and department “desk procedures,” tighter controls over access to financial data, improved reconciliations, and greater accountability due to its implementation of SOX. Also, the Audit Committee has become more involved in governance duties for the audit process. The Audit Committee concluded that it was worthwhile to implement SOX in the manner that Pitt did. According to the Director of Internal Audit, the combination of the Section 404 work performed on the 16 central processes and the SOX CSA for decentralized units has improved Pitt’s internal control environment. As the Director of Internal Audit explained:

The time it took to implement centrally was worth it in order to make the work consistent and usable for departments, management, and external auditors.

Through SOX implementation, Pitt also helped raise awareness among key business process owners of the importance of establishing and maintaining a good system of internal controls. This coincides with Maatman’s (2006) theory that by implementing SOX, the

corporation reviews the adequacy and operation of its internal accounting and financial controls and practices. By so doing, any entity – whether it is formally bound by SOX or not – deters fraud.

Also, the internal control documentation has been used as a guide to train employees about the policies and procedures within departments. For example, documentation that has improved consists of updates to operations manuals, revised personnel policies, and recorded control policies to meet the requirements of Section 404 (Wagner & Dittmar, 2006). In addition, there is more extensive outreach to key areas of the University at year-end in order to identify unusual transactions, significant non-routine transactions, significant contracts entered into, or any year-end timing issues relevant to proper cut-off that may impact the University's financial statements. SOX requirements standardize processes, reduce complexity, strengthen weak links, and minimize human error by requiring robust controls for key processes within the organization (Wagner & Dittmar, 2006). Also, an area that benefited was the tightening of controls around access to the financial statement files as well as access to the Oracle general ledger (PRISM). In short, the internal control environment was improved as a result of the Section 302 and 404 work throughout the University.

5.4 IMPLICATIONS FOR RESEARCH

When SOX was enacted, there was an impetus for colleges and universities to undertake voluntary compliance with a number of SOX's easier-to-implement provisions. Scholarship studying those efforts highlighted the value of voluntary compliance, but with a focus on the easier-to-implement SOX provisions (Goins et al., 2009). This case study builds on that prior

scholarship, not at the advent of SOX compliance but, rather, 15 years afterwards. Its focus is different in that it is more retrospective; with the benefit of that additional time, it examines how one university adopted some of the more demanding sections of SOX, which have become less burdensome over time. A key reason for that reduction in burden over time is that one of the most significant obstacles to implementing the more demanding sections was the uncertainty of how to do so in a nonprofit context. It could well be that the Pitt model enables other nonprofit colleges and universities that wish to implement the more demanding sections of SOX to do so without the same degree of uncertainty. Put simply, the Pitt model provides a benchmark for those nonprofit institutions as they contemplate the potential voluntary implementation of some of the more challenging provisions of SOX.

5.5 IMPLICATIONS FOR PRACTICE/LESSONS LEARNED

The Pitt experience confirms three critical facts that are useful to other nonprofit institutions of higher education. First, voluntarily implemented SOX-inspired reform enhanced a culture of accountability. First, voluntarily implemented SOX-inspired reform created an improved culture of accountability, with greater awareness of internal controls, documentation, and procedures. Second, the costs of implementing SOX reduce over time. The initial phase of identifying, documenting, and testing the internal controls took a tremendous amount of time and effort. However, after the initial implementation, it is now a matter of maintaining and monitoring the established internal controls. Third, Pitt developed tools such as the SOX Control Self-Assessment and 302 questionnaires that allowed for assurance that internal controls were working properly throughout the University.

The Internal Audit Director had the following advice for other nonprofit colleges and universities that may want to implement SOX. According to the Internal Audit Director, the first thing a university should do when implementing SOX is to leverage what is already in place. A nonprofit university should review SOX and review the organizational current structure and systems to identify what requirements of SOX are already met. Then the university could figure out which SOX sections would be feasible to implement. The key is using a central department backed by management or the board to uniformly define and evaluate the control environment and process controls. He recommends that the requirements of Section 301 should be implemented immediately with an anonymous hotline. However, the requirements of Section 302 and 404 require time and careful thought as to how a University should implement them.

5.6 CONCLUSION

Nonprofit colleges and universities are not governed by SOX and thus need not adhere to its requirements. Nonetheless, nonprofit colleges and universities would derive value in voluntarily implementing SOX-inspired reforms. There has been, however, little guidance published for how SOX reforms could be efficiently implemented in the context of nonprofit higher education. Pitt made an investment in attempting to implement SOX-inspired reforms, without the benefit of published guidance such as that developed by the PCAOB to assist publicly traded companies with SOX compliance. Because nonprofit colleges and universities have different accounting systems and different legal structures than publicly traded companies, the PCAOB guidance did not readily apply. However, NACUBO provided a checklist for higher education institutions to

use to implement the SOX requirements that were applicable to this sector. The checklist was used as a guide but did not provide details for the 302 and 404 work.

Thus, while it may be that many nonprofit colleges and universities realize the value of SOX reforms, they lack a clear path to implementing those reforms voluntarily. The experience at Pitt is important because it provides guidance for how nonprofit colleges and universities can implement SOX-inspired reforms. Implementing SOX is a university-wide commitment that requires buy-in from the whole institution. This case study could encourage others to adopt the best practices of a nonprofit university that has successfully implemented the SOX requirements. Internal Audit determined that the benefits of the voluntary adoption of SOX-inspired reforms exceeds the burdens. The SOX department did not blindly implement these reforms, but it did so with considered judgment. Because the benefits were determined to outweigh the burdens, Pitt's experience could be studied by other nonprofit colleges and universities to help ascertain whether they want to voluntarily adopt SOX-like reforms. Ideally nonprofit colleges and universities need to know the consequences of taking on such an endeavor.

APPENDIX A

INTERVIEW QUESTIONS

A.1 CONTROLLER, THURMAN WINGROVE

Some of the questions we have already covered, I ask simply to document those foundational points for the integrity of the interview.

BACKGROUND

1. How long have you worked at Pitt?
2. What positions have you held at Pitt?
3. How were you involved in Pitt's decision to implement reforms based on the Sarbanes-Oxley Act (SOX)?

Specifically,

- a. When did that occur?
 - b. What were your duties and responsibilities with respect to that undertaking?
4. How were you involved in Pitt's implementation of reforms based on SOX?

Specifically,

- a. When did that occur?
- b. What position did you hold at that time?

- c. What were your duties and responsibilities with respect to that undertaking?
5. In the last ten years since 2008, are you aware of any instances of fraud at Pitt?

STRATEGIC VISION

6. Which of the SOX requirements did Pitt select for voluntary implementation?
7. Why did Pitt decide to voluntarily implement those SOX requirements?
- a. Was it a risk based decision?
 - b. Was there opposition to implementing those SOX reforms? If so, please describe the opposition.
 - c. What were the goals of the SOX implementation?
8. Who had responsibility for
- a. Authorizing the SOX-inspired reforms?
 - b. Implementing the SOX-inspired reforms?
 - c. Evaluating the SOX-inspired reforms?
9. What role, if any, did the Audit Committee have in implementing SOX-inspired reforms?
10. What role, if any, did Pitt's external auditors have in implementing SOX-inspired reforms?
11. What was the timeframe for implementation (beginning through completion)?
12. Were there Sections of SOX that Pitt considered but did not implement? If so,
- a. What were they?
 - b. Why did Pitt decide not to implement them?

PLANNING

13. How did Pitt start the process of implementing reforms inspired by SOX Sections 301, 302, and 404?

- a. Who was on the department to implement SOX and why were they selected?
14. What resources were you given to implement SOX?
- a. How did you use those resources?
15. How did Pitt plan an internal control assessment?
16. How did Pitt identify the risks?
17. How did Pitt identify and document the key financial processes? Please specify,
- a. Did Pitt use a top-down approach for identify key financial processes?
 - b. If not, which model did you use?
18. What was the most challenging aspect about implementing SOX in the planning phase?

TESTING

19. How did you implement reforms based on Section 301?
- a. Does the hotline work effectively?
20. How did you implement reforms based on Section 302?
- a. What questions or concerns does the Chancellor have when certifying the financial statements?
21. How did you implement reforms based on Section 404?
- a. What is the process for documenting internal controls?
 - b. What is the process for testing internal controls?
22. How do you maintain internal controls across the campus?
23. What was the hardest part about the testing process?

REPORTING

24. How do you report compliance with reforms based on Section 301?
25. How do you report compliance with reforms based on Section 302?

- a. Do you sub-certify requirements for Section 302 by financial leaders in different units, departments or schools?
26. How do you report compliance with reforms based on Section 404?
- a. Do you provide an attestation over internal control assertions and testing?
 - b. If so, who provides it?
27. Has Pitt had an external audit or review of internal controls?
28. What type of deliverables or guides have been created because of SOX Sections 301, 302, and 404?

LESSONS LEARNED

29. How was success evaluated?
- a. How were protocols improved over time?
 - b. What would you have done differently?
 - c. How do you think it has enhanced your internal controls and transparency?
30. Was it worth it to voluntarily implement SOX-inspired reforms?
- a. What were the costs – monetary, time, other resources – of implementing SOX?
 - b. What benefits have you seen from implementing SOX?
31. Overall, what was the most challenging aspect of implementing SOX-inspired reforms?
32. Do you know if other colleges and universities have implemented SOX-inspired reforms for Sections 301, 302, and 404?
33. How would you recommend other colleges and university implement Sections 301, 302 and 404?
34. Do you have recommendations of additional persons that I should interview to better understand Pitt's voluntary implementation of SOX-inspired reforms?

Is there anything else that would aid in understanding Pitt's decision to voluntarily implement SOX-inspired reforms?

A.2 DIRECTOR OF INTERNAL AUDIT, JOHN ELLIOTT

Some of the questions we have already covered, I ask simply to document those foundational points for the integrity of the interview.

BACKGROUND

1. How long have you worked at Pitt?
2. What positions have you held at Pitt?
3. How were you involved in Pitt's decision to implement reforms based on the Sarbanes-Oxley Act (SOX)?

Specifically,

- a. When did that occur?
 - b. What were your duties and responsibilities with respect to that undertaking?
4. How were you involved in Pitt's implementation of reforms based on SOX?

Specifically,

- a. When did that occur?
 - b. What were your duties and responsibilities with respect to that undertaking?
5. How many staff are in the Internal Audit department?
 6. How many of those staff work on SOX compliance?
 7. What is the Internal Audit department's role in implementing SOX Section 301, 302 and 404?

STRATEGIC VISION

8. Which of the SOX requirements did Pitt select for voluntary implementation?
9. Why did Pitt decide to voluntarily implement those SOX requirements?
 - a. Was it a risk based decision?
 - b. Was there opposition to implementing those SOX reforms? If so, please describe the opposition.
 - c. What were the goals of the SOX implementation?
10. Who had responsibility for
 - a. Authorizing the SOX-inspired reforms?
 - b. Implementing the SOX-inspired reforms?
 - c. Evaluating the SOX-inspired reforms?
11. What role, if any, did the Audit Committee have in implementing SOX-inspired reforms?
12. What role, if any, did Pitt's external auditors have in implementing SOX-inspired reforms?
13. What was the timeframe for implementation (beginning through completion)?
14. Were there Sections of SOX that Pitt considered but did not implement? If so,
 - a. What were they?
 - b. Why did Pitt decide not to implement them?

PLANNING

15. How did Pitt start the process of implementing reforms inspired by SOX Sections 301, 302, and 404?
 - a. Who was on the department to implement SOX and why were they selected?
16. What resources were you given to implement SOX?

- a. How did you use those resources?
17. What was the most challenging aspect about implementing SOX in the planning phase?
18. How does the Internal Audit department identify which key processes to review and test each year for internal control testing?

TESTING

19. How do you test internal controls to complete Section 404?
20. What happens if you identify a control deficiency?
21. How do you monitor and maintain internal controls at Pitt?
22. What was the most challenging aspect about implementing SOX in the testing phase?

ANONYMOUS HOTLINE

23. What is the Audit Committee's role in the implementation of Section 301?
24. Did you decide to outsource the anonymous hotline? If so,
- a. Why?
 - b. How did you select a vendor to implement your hotline?
 - c. How much does the anonymous hotline cost to maintain?
25. How do you monitor the hotline?
- a. Specifically, how do you follow up on tips, complaints, or other issues submitted through the hotline?
26. Have you encountered any problems with the hotline?
27. What tips or reports have you received through the hotline that led to identification of a problem or error at the university?
28. In the last ten years since 2008 has Pitt had any instances of fraud? If so, was the fraud reported through the hotline?

REPORTING

29. What type of deliverables or guides have been created by Internal Audit because of SOX Sections 301, 302, and 404?

LESSONS LEARNED

30. How was success evaluated?
- a. How were protocols improved over time?
 - b. What would you have done differently?
 - c. How do you think it has enhanced your internal controls and transparency?
31. Was it worth it to voluntarily implement SOX-inspired reforms?
- a. What were the costs – monetary, time, other resources – of implementing SOX?
 - b. What benefits have you seen from implementing SOX?
32. Overall, what was the most challenging aspect of implementing SOX-inspired reforms?
33. Do you know if other colleges and universities have implemented SOX-inspired reforms for Sections 301, 302, and 404?
34. How would you recommend other colleges and university implement Sections 301, 302 and 404?
35. Do you have recommendations of additional persons whom I should interview to better understand Pitt's voluntary implementation of SOX-inspired reforms?
36. Is there anything else that would aid in understanding Pitt's decision to voluntarily implement SOX-inspired reforms?

A.3 SOX MANAGER, TONY GRAHAM

Some of the questions we have already covered, I ask simply to document those foundational points for the integrity of the interview.

BACKGROUND

1. How long have you worked at Pitt?
2. What positions have you held at Pitt?
3. How were you involved in Pitt's decision to implement reforms based on the Sarbanes-Oxley Act (SOX)?

Specifically,

- a. When did that occur?
 - b. What position did you hold at that time?
 - c. What were your duties and responsibilities with respect to that undertaking?
4. How were you involved in Pitt's implementation of reforms based on SOX?

Specifically,

- a. When did that occur?
 - b. What position did you hold at that time?
 - c. What were your duties and responsibilities with respect to that undertaking?
5. When was the SOX office and your position created?

Specifically,

- a. What is the name of the office that is responsible for SOX implementation?
- b. How is that office staffed?
- c. Please describe your duties and responsibilities.

- d. What responsibility does the office have for reforms inspired by SOX Sections 301, 302, and 404?
- 6. Does Pitt have a code of ethics? If so, when did you implement it?
- 7. Does Pitt have a fraud training for its staff and faculty? If so, when did you implement it?

PLANNING

- 8. How do you ensure that Pitt has identified the significant risks to material misstatement and has put in place the proper key controls to adequately mitigate these risks?
- 9. How did you identify the key internal controls?
- 10. How did you decide how to test the key internal controls?
- 11. How do you review the design of the controls?
- 12. How do you identify preventative vs. detective controls?

TESTING

- 13. How do you evaluate the design and test the operating effectiveness of the key internal controls?
- 14. When conducting your internal control testing, have you found any control deficiencies?
 - a. If so, what do you do to address these deficiencies?
- 15. How do you decide which controls to test and when?
 - a. How do you rotate the controls to test?
 - b. How did you identify locations subject to testing and assess coverage?
- 16. Do you conduct testing at the branch campuses?
- 17. Have you found an instance of over testing? Meaning you test two controls that mitigate the same risk.

18. What type of documentation do you use to document the internal controls (such as flow charts, narratives, or operating manuals)?
19. Is the documentation used like a guide or handbook in the various departments? If so, please explain.

REPORTING

20. To whom and how often do you report the testing results for Section 404?
21. What type of deliverables or guides have been created because of SOX Sections 301, 302, and 404?

LESSONS LEARNED

22. How has your role changed over the years?
23. How was success evaluated?
- d. How were protocols improved over time?
 - e. What would you have done differently?
 - f. How do you think it has enhanced your internal controls and transparency?
24. Was it worth it to voluntarily implement SOX-inspired reforms?
- a. What were the costs – monetary, time, other resources – of implementing SOX?
 - b. What benefits have you seen from implementing SOX?
25. Overall, what was the most challenging aspect of implementing SOX-inspired reforms?
26. How would you recommend other colleges and universities implement Sections 301, 302 and 404?
27. Do you have recommendations of additional persons whom I should interview to better understand Pitt's voluntary implementation of SOX-inspired reforms?

28. Is there anything else that would aid in understanding Pitt's decision to voluntarily implement SOX-inspired reforms?

**A.4 KEY CENTRAL BUSINESS PROCESSES – FINANCIAL REPORTING,
ASSISTANT CONTROLLER, KATHY TOSH**

BACKGROUND

1. How long have you worked at Pitt?
2. What positions have you held at Pitt?
3. Were you involved in Pitt's decision to implement reforms based on the Sarbanes-Oxley Act (SOX)?

If so,

- a. When did that occur?
 - b. What position did you hold at that time?
 - c. What were your duties and responsibilities with respect to that undertaking?
4. Were you involved in Pitt's implementation of reforms based on SOX?

If so,

- a. When did that occur?
- b. What position did you hold at that time?
- c. What were your duties and responsibilities with respect to that undertaking?

IMPLEMENTATION OF SOX-INSPIRED REFORMS

5. As part of the implementation of SOX-inspired reforms how do you review the key controls? Describe that process and include how much time it takes for that review.

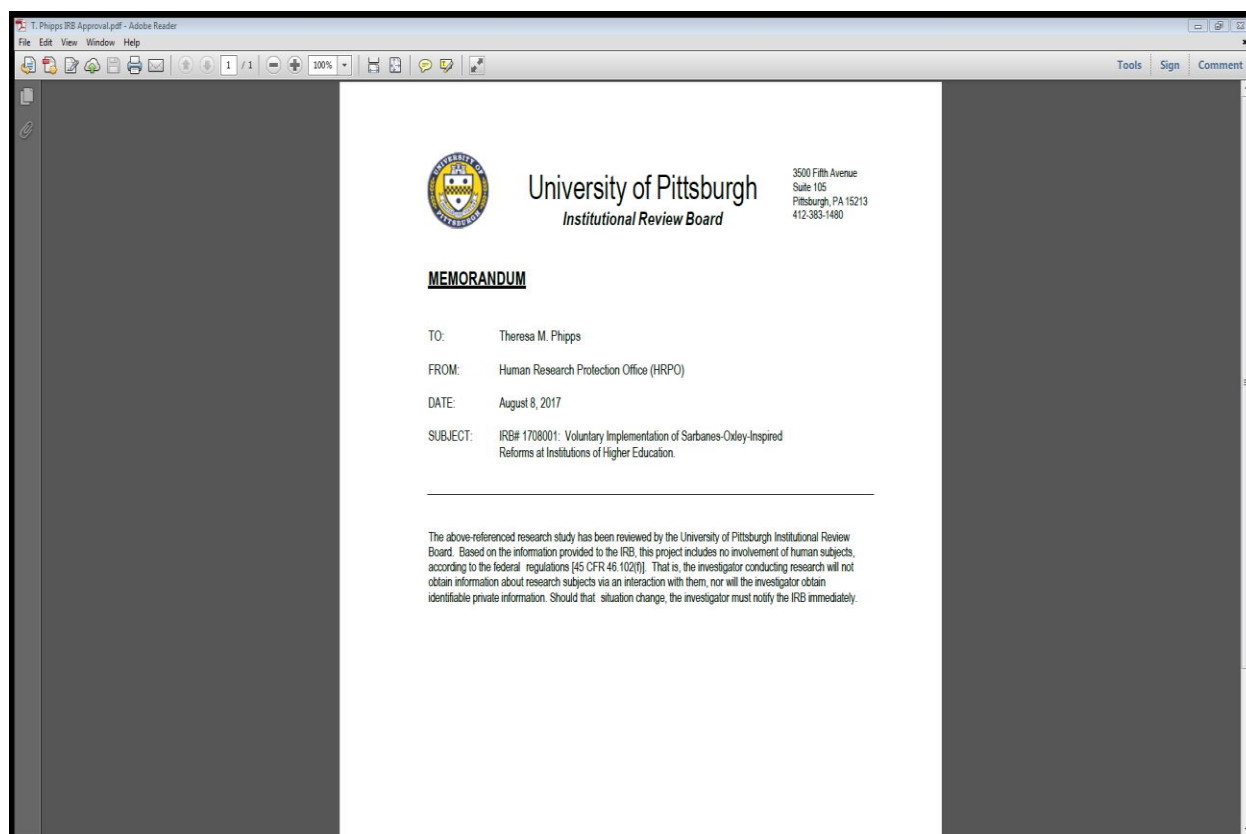
6. Do you meet with the SOX manager regularly? If so,
 - a. Why?
 - b. How often?
7. How do you work with the SOX manager Tony Graham to review your process area over the key controls?
8. Have you seen any benefits from the implementation of SOX-inspired reforms at Pitt?
9. How often has your department been asked to review the 25 internal control questionnaire since the beginning of SOX implementation?
10. How often do you need to review and approve the key internal controls in your department?
11. Has there been an instance when you had to update the key controls? If so please explain.
12. Have you had any control deficiencies or problems with the testing? If so, please describe the issue.
13. How does your staff help you in reviewing and testing the key internal controls?
14. What questions or concerns does the Chancellor have when certifying the financial statements?
15. How did you implement reforms inspired by Section 404?
16. What is the process for documenting key internal controls?
17. What is the process for testing key internal controls?
18. How do you maintain internal controls in your department?
19. What was the most challenging aspect of implementing SOX reforms?
20. How has the documentation of key controls and processes in your department helped the control environment?

LESSONS LEARNED

21. In implementing SOX inspired reforms is there anything you would have done differently?
22. Do you have recommendation of additional persons whom I should interview?
23. Is there anything else that could help in understanding Pitt's decision to voluntarily implement SOX inspired reforms?

APPENDIX B

IRB APPROVAL AND INFORMED CONSENT



Consent to Act as a Participant in a Research Study

STUDY TITLE: A Case Study of the Voluntary Implementation of SOX at the University of Pittsburgh

PRINCIPAL INVESTIGATOR: Theresa Phipps, tmp54@pitt.edu, (412) 952-5506, 313K Eisenberg Building Slippery Rock University, Slippery Rock, PA 16057

QUESTIONS ABOUT THE STUDY:

- *If you have any questions about your rights as a research subject or wish to talk to someone other the research team, please call the University of Pittsburgh Human Subjects Protection Advocate toll-free at 866-212-2668.*
- You can contact the study investigator if you have any questions about the study, concerns or complaints, Principal Investigator, Theresa Phipps at (412) 952-5506.

INTRODUCTION:

- You are invited to participate in a research study to study the University of Pittsburgh's voluntary adoption of Sarbanes-Oxley. The study is being conducted by Theresa Phipps University of Pittsburgh doctoral candidate, CPA, Associate Accounting Professor at Slippery Rock University under the direction of Dr. Maureen McClure, Director of the Institute for International Studies in Education (IISE) at the University of Pittsburgh. You were selected as a possible participate because you are a key University of Pittsburgh Sarbanes-Oxley Act implementer or participant.

RESEARCH ACTIVITIES:

- Your participation is completely voluntary. If you decide to participate in this research study, you will be asked to answer questions in an interview.

STUDY RISKS:

- The risks associated with participating in this study are minimal.

STUDY BENEFITS:

- If you participate in this study, you can expect to contribute to our collective understanding of benchmark SOX implementation in higher education. We cannot promise you that you will receive any or all of the benefits described. Benefits to others may include re-evaluating their management, governance, and fraud policies.

COMPENSATION

- No compensation is available.

PRIVACY (Person) and CONFIDENTIALITY (Data):

- The University of Pittsburgh policy is that all research records must be maintained for at least 7 years following final reporting or publication of a project.

WITHDRAWAL FROM STUDY PARTICIPATION:

- You can, at any time withdraw from this research study.
- To formally withdraw from this research study, you should provide a written and dated notice of this decision to the principal investigator of this research study at the address listed on the first page of this form. Your decision to withdraw from this study will have no effect on your current or future relationship with the University of Pittsburgh.

VOLUNTARY PARTICIPATION:

- Your participation in this research study is entirely voluntary. If there are any words you do not understand, feel free to ask me. The investigator will be available to answer your current and future questions.
- Whether or not you provide your consent for participation in this research study will have no effect on your current or future relationship with the University of Pittsburgh.

CONSENT TO PARTICIPATE:

- The above information has been explained to me and all of my current questions have been answered. I understand that I may always request that my questions, concerns or complaints be addressed by a listed investigator. I understand that I may contact the Human Subjects Protection Advocate of the IRB Office, University of Pittsburgh (1-866-212-2668) to discuss problems, concerns, and questions; obtain information; offer input; or discuss situations that occurred during my participation. By signing this form I agree to participate in this research study. A copy of this consent form will be given to me.

I certify that I have explained the nature and purpose of this research study to the named individual(s), and I have discussed the potential benefits and possible risks of study participation. Any questions the individual(s) have about this study have been answered, and we will always be available to address future questions, concerns or complaints as they arise. I further certify that no research component of this protocol was begun until after this consent form was signed.

Printed Name of Person Obtaining Consent

Role in Research Study

Signature of Person Obtaining Consent

Date

APPENDIX C

FINAL PROPOSAL OF DEMONSTRATION OF SCHOLARLY PRACTICE

On June 1, 2018, I presented my case study at the Pennsylvania Economic Association (PEA) Conference at Penn State Altoona. The Pennsylvania Economics Association is a professional association of economists in Pennsylvania and neighboring states.

The annual meeting consisted of approximately 70 papers presented and discussed at the annual conference. The conference was organized by related business disciplines – accounting, finance, law, management, and marketing. I gave a 30-minute presentation and received valuable feedback. It helped to present at an Economics conference because they know SOX but do not know the explicit details. I had to explain the concept to non-accountants which shed light on issues that need more clarification.

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