EXPLORATION OF MECHANISMS USED FOR ORGANIZATIONAL LEARNING RELATED TO WHISTLEBLOWING CLAIMS IN INSTITUTIONS OF HIGHER EDUCATION AT THE STATE AND THE INSTITUTION

By

Christopher R. Schmidt CMA, CIA

University of Pecs, Faculty of Business and Economics

schmidt.christopher@pte.hu

A dissertation submitted in partial fulfillment of the requirements

For the degree of Doctor of Philosophy (Management)

University of Pecs

2017

Supervisors:

Dr. Ferenc Farkas†

Dr. Katalin Dobrai

Declaration of Originality

I, the undersigned, solemnly declare that this doctoral dissertation is the result of my own independent research and was written solely by me using the literature and resources listed in the Bibliography.

_____
Christopher Robert Schmidt
Berlin, December 12th, 2017

Acknowledgements

I would like to acknowledge the following people for supporting me through this research:

Professor Dr. Ferenc Farkas, who guided me through my research and made timely completion possible by always emphasizing the importance of moving forward, suggesting co-authors, and suggesting target publications, all while fighting health issues and the normal challenges of academia. May his family and colleagues look back with proud memories of Ferenc.

Professor Dr. Katalin Dobrai, who guided me to completion and provided innumerable sessions of advice on approaches and target publications. Sacrificing the quiet of her retirement, Dr. Dobrai spent countless hours reviewing, commenting, and providing her insight that transformed this dissertation.

Reviewers Dr. Jon Van Til and Dr. Peter Dobay provided valuable insight and fresh perspectives that challenged and greatly contributed to the structure of the final dissertation.

The faculty and staff of the Faculty of Business and Economics including, but not limited to, Dr. Rekettye, Dr. Voros, Dr. Barakonyi, Dr. Hauck, Dr. Belyacz, Dr. Vitai, Ms. Gabriella Kohlmann, and Ms. Sarolta Mark.

Mr. Habib Moradi, who ensured that Ms. Bonau was on her best behavior and helped us learn the fine art of darts and palm reading.

My daughters Klara and Katalin, who enjoyed teasing me about my many hours spent behind a computer, book, or journal. May they too be as blessed by one day completing their studies at the University of Pecs with such a wonderful environment and institutional culture of mutual support and care.

Sarah Bonau, who paced and helped me daily through the challenges of completing coursework and research, inspired levity in the classroom and out, while ensuring that we, her colleagues, maximized our exposure to the beautiful city of Pecs and country of Hungary. Thank you, Sarah, for leading by example, for holding high standards, for your tireless work ethic and the impeccable polish and refinement you bring to your work, and for sincerely caring about your colleagues and the people around you.

Copyright Statement

This copy of the dissertation has been supplied on condition that anyone who consults it is understood to recognize that its copyright rests with its author and that no quotation from the dissertation and no information derived from it may be published without the author's prior consent.

Abstract

Whistleblower claims involve accusations of fraud, theft, or misconduct by employees or leaders, consistently uncover long undetected fraud schemes and misconduct, and are an essential component of effective governance. Each accusation made, valid or not, presents a learning opportunity for management. Current governance practices used to solicit, manage, resolve, and learn from whistleblower claims are explored to understand how colleges and universities are working to prevent wrongdoings. Comparative multi-level studies analyze actual multi-year claims data from select states and institutions leading to an expanded comprehensive categorization of claims. A rubric of key control points is used to compare international practices across prominent institutions in the United States, the United Kingdom, and in Hungary, with a particular focus on increased transparency provided by Internet communication technologies. A survey of individual experience is conducted to estimate the rate of exposure to wrongdoings on campus (high) and the rate of exposure to training (low). Whistleblower claims collected are found to be subject to filtering by the institutional or legislative historical legacy, which varies widely by jurisdiction. Internet communication technologies are found to improve the transparency of governance and administration of claims. Management disciplines, where present, to ensure that institutions are learning from claims varied widely at both the state and institutional levels of governance. A framework for proactive management is presented to ensure that structured systematic learning can occur.

Table of Contents

List of Figures

List of Tables

List of Abbreviations

Chapter 1—Introduction

1.1 The Motivation and Aim of the Research

Whistleblower claims involve accusations of wrongdoing, fraud, theft, or misconduct. Rarely does a day go by without another headline of an individual or institution being impacted by the claim of a wrongdoing revealing persistent issues gone unaddressed. During the course of this research alone, major scandals in industry such as Volkswagen's active deceit of regulators over diesel engine emissions (Ewing, J. 2017), FIFA bribery and misconduct (Gibson & Gayle, 2015), the Transparency International disclosure of offshore banking habits of elected officials "Panama Papers" (New York Times, 2016) and "Paradise Papers" (Suddeutsche Zeitung, 2017), the US Director of the FBI, James Comey, blowing the whistle on President Donald Trump (Naftall, 2017), and the global uprising of victims of sexual assault by employers triggered by the Harvey Weinstein scandal (Kirchgaessner, 2017) – including at least one prominent Hungarian Dean, Gyorgy Mikonya (Orban, K, 2017). This moral and ethical challenge of revealing wrongdoings is a phenomenon that is as old as human civilization. Going back to Greek Mythology, the story of Sisyphus who was condemned by the gods to a perpetual punishment after revealing that Zeus had abducted and raped Aegina. Did the Greek gods take the time and effort to protect Sisyphus? Did they attempt to design a system to prevent them from making similar mistakes?

Dr. Jon Van Til writes, "The Deity blew the whistle on Adam and Eve" and notes that Martin Luther was one of many of centuries of whistleblowers on the Catholic Church. Further, he notes that rarely a drama exists without the key role of the whistleblower uncovering some controversy or wrongdoing. (Personal communication, June 26, 2017) Over the centuries, has humanity learned to protect itself from wrongdoings? Are we getting better at protecting people, ourselves? If so, what is the evidence? If someone is effectively learning from wrongdoings, what are some approaches that they are using? Are some of those approaches more effective than others? In which situations or under which circumstances?

A large body of research and legal activities focused on protecting the whistleblower have grown out of a post-Enron environment in Industry, having also had an impact on the public sector as well.   These efforts of recognizing and protecting whistleblowers should result in more claims of wrongdoing being brought forth. These claims are brought forth to the institutions or bodies that employ individuals. The institutions themselves are the ***recipients*** of the claims of wrongdoing and are primarily responsible for providing an effective mechanism for the solicitation and processing of such claims in accordance with governing policy and legislation. Each accusation of wrongdoing, whether valid or not, presents a learning opportunity for the institution; an opportunity to make their organization and community stronger and less susceptible to wrongdoings.   This dissertation explores the types of claims being received as well as the approaches the institutions are taking to learn from these claims of wrongdoing. Building upon the existing research and governance enhancements, evidence that moderating variables and factors exist that influence the effectiveness of governance approaches at lowering the incidence of wrongdoing is being sought. An exploratory approach is employed in order to understand these facets of wrongdoings and institutional learning at four levels of hierarchical exposure: first the institutional level, secondly comparing approaches across several states, thirdly a comparison at the national level of variations in practices used by administrators and their governing bodies. Finally, a survey of individual stakeholder experiences and perceptions was conducted to explore personal exposure and experiences on and around campus.

1.1.1 Definition of the Problem

While a number of studies exist that analyze the treatment of fraud in public corporations and government agencies, the topic of governance mechanisms for preventing wrongdoings at institutions of colleges and universities has not been explored in detail. This is of growing importance as funding transitions from state to the student, as enrollments and funding are under pressure to be more efficient.   Meanwhile the

deterioration of traditional controls, such as a vibrant mass media and investigative journalism may increase the likelihood that wrongdoings go undetected.

Considered by many to be morally superior and immune to internal crime or theft, institutions of higher education can also be the stage for wrongdoings of all types. While the common topics of employee theft, fraud, or misconduct are well researched, this extends to behaviors and subjective assessments of leadership. Further, numerous cases of fraud and theft at universities and colleges have been studied where theft and embezzlement by employees have gone undetected for decades, and the largest and most complex schemes have only been discovered by accident. The Association of Certified Fraud Examiners (ACFE) in its annual report to nations finds that 22% of the claims reported involved theft of over $1 million USD (Ratley, 2014). The importance of organizational learning to establish, monitor, and maintain a well-considered system of disciplines that protect the institution against internal crime, theft, or misconduct is of growing importance. (Aucoin, 2005; Houston, 2010; Weissman, 2014).
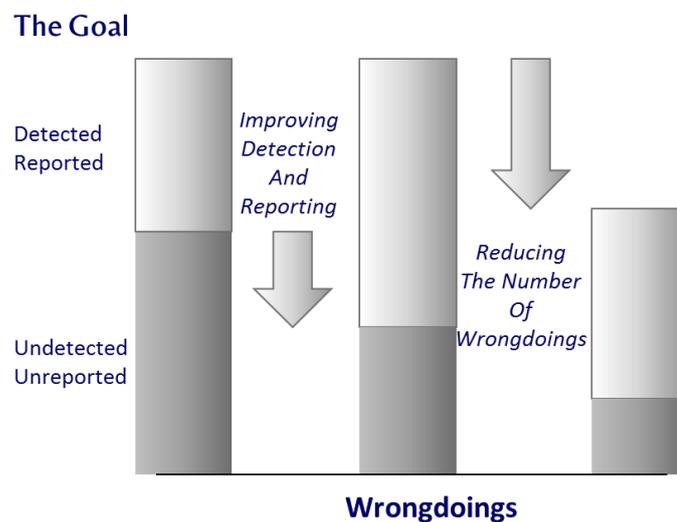
Figure 1: Improvements achievable in improving the governance of whistleblower claims (Source: Own Work)

The representation contained in figure 1 shows the two primary categories of improvements sought in implementing a well-structured and designed framework for

learning from whistleblower claims. The left pane shows the reduction in the occurrence of wrongdoings, which is a primary objective of an effective framework. This pane also shows visually that there is no change in the ratio of detected to undetected claims required to achieve this overall reduction. The right pane shows that an improvement in detection can also be an important benefit, but does not necessitate in this instance any change or reduction in the overall volume of wrongdoings. Another means of interpreting these two panes is that once detection is improved, the subsequent result for the institution would be an overall reduction in wrongdoings, as detection effects positive changes and increased awareness.

1.1.2 Importance of This Study

This exploratory research should reveal evidence of substantial variation in, and quite possibly in some instances the absence of, mechanisms of organizational learning surrounding reports of wrongdoings. Policy and procedures are largely based on historical evolution of state law and policy, used at the state and institutional level with regards to whistle-blowing claims. By cataloguing and describing both the actual claims filed by whistleblower, and studying the state processes used to solicit, validate, and process these claims of fraud or theft, this research will show that there is a wide spectrum of practices and treatments between institutions, between states, between nations, and finally in the experiences of individuals.

A new risk to higher education exists in the conversion to performance-based funding in higher education, which has received renewed attention and focus with initiatives in many states being studied or implemented in recent years (Tandberg et al., 2014; Rutherford & Rabovsky, 2014; Hillman et al., 2015). Although this approach may be wholly incompatible with the premise of higher education, the application of private sector competitive incentive metrics and management theory to higher education is a recurring theme. Much as antibiotics are regularly over-prescribed by physicians to help treat the

common cold or other viral infections to appease the patient, politicians are motivated to connect college and university funding to student success rates. Performance-based funding takes many forms, but essential to the notion is the attempt to connect funding levels with student success. Incentive-based, performance-based funding may present an additional control risk in higher education, as evidenced by scandals in Illinois (Levitt & Dubner, 2005) and Georgia (Carter, 2013). Entire groups of faculty and staff have been found to groupthink themselves into manipulating measures and metrics to achieve personal gain at great cost to the students, the institutions they serve, their professions, and the greater society. There is no evidence or mechanism to suggest that the scandals that have taken place in primary education cannot repeat themselves inside of an institution of higher education. In both the Illinois and Georgia cases, concerned teachers who reported the misconduct early on were dismissed and in some cases terminated and only later were their concerns validated, after the scope and scale of the fraud reached massive and obvious proportions.

Additionally, the reality of the society is that harmful or adverse headlines and negative press follow an institution around for decades longer than ever before, through the medium of online media archives. As this work will show, this increases the potential for any given fraud event to impact on the institution in long-lasting and sustained negative exposure.

1.1.3 Hypothesis

That there are different approaches to institutional governance that have various success of lowering the incidence of wrongdoings in their institutions is depicted in figure 2. Moderating Variables (MV) in this relationship of governance approach to successful mitigation of wrongdoings are believed to be Transparency, Formality, and Structured Approach to Learning. Transparency as a factor is controversial, and no consensus exists on if it is truly better to be more open and communicate more detail, and the inevitable increases on time demands in order to ensure stakeholders are informed of risks and hazards and what to do when encountering wrongdoings. The impact of formalized procedures or processes or policies, or set thereof, that defines the approaches to the

handling and treatment of wrongdoings within an institution should clearly affect the organizations' administrative and governance effectiveness. This research looks for evidence of these disciplines as well as if those disciplines include an element of structured, pro-active, preventative organizational learning and growth.
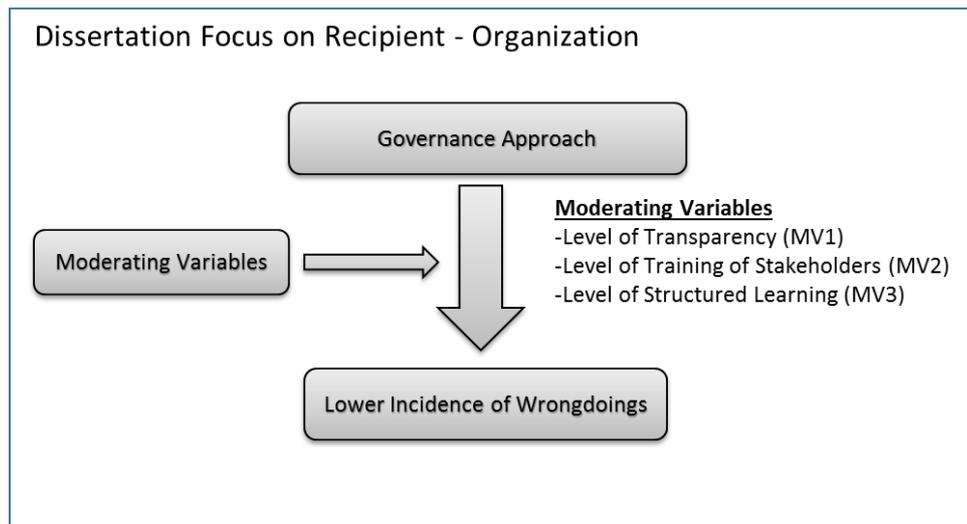
Figure 2: Model of Governance's Efficacy in lowering the Incidence of Wrongdoing (Source: Own Work)

The findings of this research are expected to produce evidence of the scope and extent of variation in institutional, state, and national customs:

H.1. That actual fraud claims affect specific areas and activities within institutions, and a categorization of these claims will help administrators and institutions to improve their processes pre-emptively.

H.2. Institutions that employ the use of Internet Communication Technology (ICT) achieve a comparatively high level of transparency of governance and access to make claims and visibility to review claims, whereas those who do not have a lower level of transparency.

H.3. There is substantial variation in the processes and approaches used at the state-level to monitor and solicit claims against institutions that receive state funding.

H.4.   The specific approaches to learning used by administrators and institutions were developed on unique circumstances that vary state by state and institution to institution, resulting in a diverse set of practices that have outcomes that are sometimes focused on addressing one main problem—theft of assets, for example—while others may function in a more broad sense and be more effective in identifying governance issues and embezzlement or misconduct.

H.5.   Mechanisms to ensure that learning from whistleblower claims takes place are missing or being developed.

H.6.   Best practices are identified through the exploration and comparison of the relative effectiveness of practices.

Table 1: Overview of Expected Outcomes and Contribution to Moderating Variables (Source: Own Work)

Component		Description
Expected Outcomes	H1	Categorization of actual fraud claims that affect specific areas and activities within institutions
	H2	Internet Communication Technology (ICT) gives a comparatively high level of transparency to claims
	H3	There is substantial variation in the processes and approaches used at the state-level to monitor and solicit claims against institutions that receive state funding.
	H4	Legal and historical frameworks drive variation between jursidictions
	H5	Mechanisms to ensure that learning from whistleblower claims takes place are missing or being developed.
	H6	Best practices can be identified through the exploration and comparison of the relative effectiveness of practices.
Moderating Variables (MV)	MV1	Transparency lowers rate and severity of wrongdoing;
	MV1	Training of stakeholders
	MV3	Structured approach to organizational learning from wrongdoings

The analysis of outcomes and their efficacy will be evaluated via a rubric that will be developed during the research. The development of the rubric requires an analysis and survey of the governance structures that can be observed from outside of the institution and are coupled with and related to the level of transparency an institution and its administration establish.

1.2 Research Design and Motivation for the Research Methodology to Be Applied

This doctoral research is intended to explore the mechanisms that exist at the state and institutional level to prevent and properly handle claims of fraud, theft, and misconduct in institutions of higher education across a number of different jurisdictions at the state and national levels. Babbie (2013) talks about Epistemology, the science of knowing, and its subfield Methodology. This dissertation focuses on understanding and knowing the reality of actual practices used in organizations to learn from whistleblower claims. Like all realities, this is subject to variation in actual practice, and this dissertation focuses on defining the core and variation from the core expectation that institutions do actually take a structured approach to learning from and improving from reports of suspected wrongdoing. In the course of the fieldwork and exploration, specific case studies are developed which help with the testing and confirmation of the dissertation hypothesis, in line with Gummesson (2000) and McNabb (2017). The approach taken to conduct the qualitative field research and guide this exploration, dissertation, are shown in Figure 3.

Chapter 1: Problem Statement and Introduction to Positioning of this Research

Chapter 2: Review of Current Literature

Chapter 3: Methodology,

Chapter 4: Findings,

&

Chapter 5: Conclusions

L1. Field Study Analysis of and Lessons from Actual Claims of Wrongdoing

L2. Comparison of Multiple States

L3. International Comparison

L4. Individual Experiences and Perceptions of Wrongdoings

Chapter 5: Recommendations - Framework for Proactively Learning from Claims of Wrongdoing

Figure 3: Overview of this Dissertation and Research Components (Source: Own Work)

This governance and administration function occurs within several levels inside of the framework of funding of higher education, as shown in the figure 4. The institutional level comprises all colleges and universities, grouped by states, which are grouped again at the national level. Each level of administration represents incremental layers of substantial funding and administrative oversight. These levels of administration also provide a basis for comparison, how things are implemented or interpreted or processed differently, or similarly. The exploration of these complex, multi-level, multi-unit processes and their current implementations follows traditional political and social science comparative policy framework as outlined in Landman (2008, pg. 70) and Lor (2012, pg. 130). This approach provides multiple rich viewpoints for the purpose of comparitive analysis.
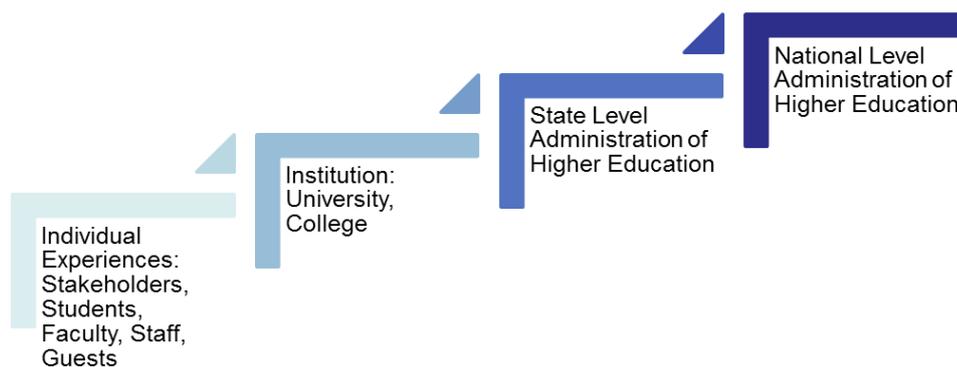
Figure 4: Multiple levels and complexity of higher education administration (Source: Own Work)

The exploratory and descriptive portion of this research project, based on whistleblower claims that involve accusations of fraud, theft, or misconduct of institutions of higher education by employees or leaders, will look at mechanisms used at the state-level for soliciting, processing, and assisting institutions to address such claims. The method of exploration will be iterative in expanding the case studies to collect the multiple data points required for cultural comparative analysis and it begins with an analysis of actual

whistleblower claims accumulated by the state of Ohio. This exploration, which summarized the analysis of whistleblower claims published by the *Journal of 21st Century Management Problems* (Schmidt, 2015), building on a short conference paper submitted jointly and presented by Ferenc Farkas at a conference in Spring 2015 (Schmidt & Farkas, 2015). Figure 5 illustrates the scope of topics explored here, which are broken into two areas: the governance processes related to soliciting, resolving, managing, and learning from claims, including the use of internet communication technology to communicate with and educate stakeholders; and the analysis of actual claims experienced by institutions, categorizing them by nature, understanding the frequency and severity, and the impact of legislation on the types of claims received.
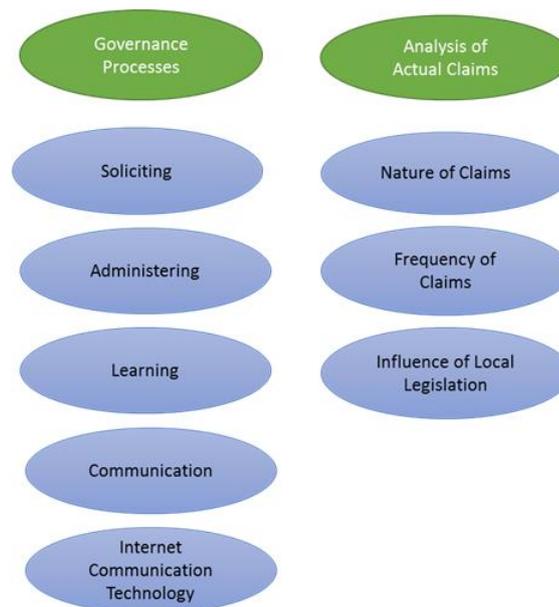
Figure 5: Scope of topics explored in this research (Source: Own Work)

The extension of the Ohio study to include multiple states, attempting to solicit and analyze comparable data from several states inside the United States, provides further insight into

the wide variation in practices employed at the state-level for the administration of whistleblower claims (Schmidt, 2016)

A comparative study between US and Hungarian institutions that focused on the method of solicitation and level of public information transparency achieved through internet communication technologies was presented in a paper co-authored by Agnes Kiraly (Schmidt & Kiraly, 2015).   This dissertation expands upon this published research by expanding the survey to include a sample of the largest institutions from England in the United Kingdom. This component of the research could also be classified as a type of content analysis, in which the study of institutional practice is conducted in an unobtrusive manner. (Babbie, 2013, pg. 356)

The survey of individual experiences will utilize a survey to obtain detailed insight into institutional policies for the treatment and processing of such claims. Each of these claims presents a unique learning opportunity for the institutional leadership and the wider organization, and it allows an opportunity to analyze the response at the institutional administrative level to claims of fraud and processes for addressing and learning as an organization. A survey of institutional leadership combined with an analysis of the outcomes of actual claims taken from several states and institutions in the United States is used to evaluate the various mechanisms used to solicit process, validate, and improve the operation of the college or university. The mechanisms of organizational learning, organizational memory, and retention of learning are highly dependent upon the infrastructure of each institution. These are compared, and an analysis of strengths and shortcomings in the wide spectrum of approaches and outcomes is presented.

Whistleblower claims and the literature and research into the topic encompass all types of institutions—for-profit, nonprofit, and governmental bodies. This research focuses on state-funded institutions of higher education, which form about 80% of the total enrollment of students in the United States as of 2010 (US Census Bureau). This is a declining portion of all enrollment, as private institutions focused on technology-enabled distance learning

gain substantial enrollment. Figure 6 represents in blue these areas that are covered here, and in grey the areas that are excluded from the organizational dimension of research.
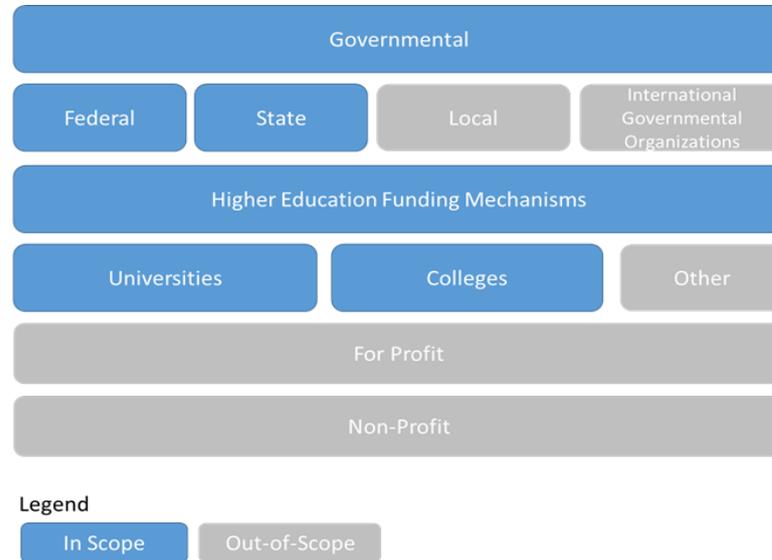
Figure 6: Organizational dimension of governance covered in this research (Source: Own Work)

By evaluating actual claims and testing the actual mechanisms for the archiving and reporting of claims, this dissertation explores and catalogues the various mechanisms used at the state and institutional levels to solicit, validate, and process concerns of fraud, theft, or misconduct of employees of state-owned institution of higher education (colleges and universities). The conceptual process of addressing whistleblower complaints is illustrated in Figure 7.
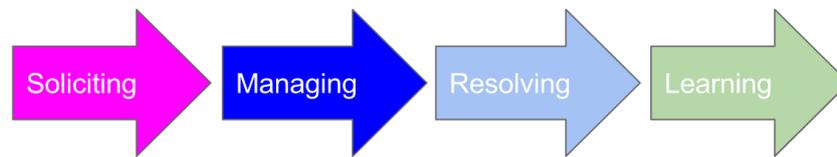
Figure 7: Conceptual process steps of administering whistleblower complaints (Source: Own Work)

The figure 7 shows the four conceptual steps in the administration of whistleblower claims within an administrative body. The process of soliciting is well researched (Moberly, 2008, Rapp, 2007, Cherry, 2004), and in many sectors is considered a compliance task, to fulfill legislated mandates that mechanisms exist to solicit and enable the reporting of concerns or complaints of wrongdoing to the institutional leadership. The next step is to manage the volume of complaints and concerns received and involves such tasks as vouching or certifying the validity of claims. The third step would be resolving issues that require management or administrative follow-up, and this may include such critical tasks as public reporting. Finally, there is the task of ensuring that the organization learns from the collective activity and works in a manner to improve processes, procedures, and awareness in order to lower the overall rate of wrongdoing.

1.2.1 Level 1: Field Study of Actual Claims in the State of Ohio

The initial field study and trial of the concept of soliciting data from state-level administrators was focused on the state of Ohio. The motivation was to obtain as much information as was possible through public record request about the type of claims and the nature of the claims received and processed at the state-level with regards to public institutions of higher education within the state. This study was also intended to allow

insight into the mechanisms used by the state to manage and administer such claims, and how and where learning opportunities and disciplines were employed.

This component of the research seeks to analyze and facilitate a discussion around the value and learning opportunities that come from analyzing actual whistleblowing claims in universities and colleges. The types of whistleblowing claims made against institutions of higher education is not well understood, nor are the various mechanisms used to solicit, investigate, and learn from such claims at the institutional and state levels.

By cataloguing and describing both the actual claims filed by whistleblower, and studying the state processes used to solicit, validate, and process these claims of fraud or theft, this segment of the research will show in the case of the state of Ohio, that there is a wide spectrum of issues that are raised through the whistleblowing process and that these claims are focused on important management processes regardless of the actual validity of the claims themselves, and these present opportunities for institutional self-assessment and learning.

1.2.2 Level 2: Expanded Study of Actual Claims in Several States

Expanding on the Ohio field study component, the processes for learning from whistleblower claims used in the state-level administration of higher education funding in three additional US states are reviewed to identify the mechanisms that are used to learn from such claims. Each state is charged with administering and distributing taxpayer resources in the best practicable and most efficient manner. These states provided $13.8 billion in state funds to institutions of higher education annually in 2013, according to the US Department of Education's IPEDS database. Further, the institutions served 6.15 million students and had cumulative annual revenues of $77.6 billion, which represented 24% of the total revenue of all US higher education in 2013.

This component of the research seeks to analyze and facilitate a discussion around the value of learning opportunities that come at the state-level of administration of higher

education by exploring the methods used by the state to solicit, manage, resolve, and learn from whistleblowing claims in universities and colleges. The types of mechanisms employed in various state-level administrations to manage the whistleblowing claims made against institutions of higher education are explored as well as the variety mechanisms used to solicit, investigate, and learn from such claims at the institutional and state levels.

The null hypothesis employed is that processes used at each state surveyed are identical in scope, effectiveness, and design. The research may disprove the null hypothesis, which would result in findings that show a broad variation in scope of fraud and cases covered; broad variation in the effectiveness in soliciting, administering, and learning from whistleblowing complaints; and a wide variety of process designs. This variation in mechanisms of organizational learning could result from such factors as the historical evolution of state law and policy used at the state and institutional level with regards to whistle-blowing claims. By cataloguing and describing both the actual claims filed by whistleblower, and by studying the state processes used to solicit, validate, and process these claims of fraud or theft, this segment of the research will show that there is a wide spectrum of practices and treatments between states in the way they approach soliciting claims, enabling claims to be made, and their approaches to the validation and processing of the claims.

The exploration and categorization of the various mechanisms used at in several states that are used to solicit, validate, and process concerns of fraud theft, or misconduct of employees of state-owned institutions of higher education (colleges and universities) consists of the following:

- Exploratory cataloguing of types of state processes and methods via a survey of public records from governing bodies in the US states of California, Ohio, Massachusetts, and Michigan.

- Descriptive cataloging and describing of types of claims received by state agencies that contain accusations against the institution or employees of the institution.

Policies and processes used inside the governing bodies to help institutions learn from such complaints.

1.2.3 Level 3: International Comparison of Institutional Wrongdoing Mechanisms

This research takes these works further in exploring and comparing the concepts of key control elements and frameworks used by universities in the US, the UK and Hungary to prevent, identify, and allow the remediation of breaches of fiduciary duty related to the moral hazards of administration. I examine how the subject of internal fraud and theft prevention are captured in the strategic planning processes and look for evidence of other mechanisms for the solicitation, administration, and learning from such claims. In facilitating the comparison of approaches used at universities among countries, criteria are established to measure the transparency and effectiveness of current governance mechanisms for organizational development and learning as an outcome of whistleblowing activities. I also compare and assess institutional structures for organizational development and learning that would improve the institution's ability to detect theft and corruption on its own.

This component of the research seeks to analyze and facilitate a discussion around the value and learning opportunities that come by performing a comparative international analysis of key mechanisms used by the institutions and their administration to solicit, manage, resolve, and learn from whistleblowing claim. The variation in the level of process development between universities in Hungary, the United States and the United Kingdom should show that some universities have more developed and complete processes surrounding the prevention of fraud and organizational learning mechanisms to ensure improvements result from such claims. This would include the prominence of both internal controls and whistleblowing processes explicit in their strategic plans and public facing web sites. For example, I would anticipate some universities emphasize the

importance of ethical issues more than others by presenting to the public their institutional Code of Ethics.

A qualitative approach is employed to the review of the websites for the sample of universities in each of the countries under review: the United Kingdom, the United States, and Hungary. Institutions selected were geographically convenient and known to the author, and they had the highest level of recognition within their region. Each of these universities' websites was reviewed for public access and dissemination of information related to the four steps of learning from whistleblowing complaints: soliciting complaints, managing complaints, resolving complaints, and organizational learning to prevent recurrence and improve prevention. I identified key controls in each of these process steps as areas to be tested and evaluated and discuss our interpretation of the significance of each of these topics. The focus of these controls is to measure and evaluate the availability of information to the public through websites that provide access to these key information points specific to the environment of soliciting, administering, and learning from whistleblower claims.

1.2.4 Level 4: Survey of Individual Experiences and Perceptions of Whistleblowing Claims in Higher Education

This survey is intended to supplement the work performed in the field study and expanded research of state-level and international approaches to learning from whistleblower claims, to include individuals, their experiences, and their preferences. It also intends to help understand from a personal level what the recognition level of fraud, theft, and misconduct are, if it is being discussed internally, and if people, as part of an institution or in whole, are working to improve their immunity to whistleblower claims, as well as the organizational aspects that may precipitate or cause such claims to arise.

While the author of this research and best practice advocate open government approaches to promote the concepts of transparency and learning, how important is this to the individual? Is the individual even aware of the institution's efforts to solicit, manage, and

learn from whistleblower claims? What are the issues that are common and pervasive in their institution? Nearby or similar institutions regionally? Nationally? Globally? How does this vary by type of institution? The person's role in the institution? Location and nationality of the institution? The purpose of this personal-level survey is to obtain the data necessary to answer these questions.

Primarily, the expectation of the research is that people are UNFAMILIAR with the topic, and that it is NOT an area of knowledge or activity that individuals at any level within institutions or even in state-level administration are aware of. This issue is typically kept submerged, or out of reach for discussion, because of other priorities, as well as the perception of bad press and risk of distraction caused by a media or popular uprising caused by one or more of the issues. In addition, the incidence rate for any given institution over time is low, making it difficult if not impossible to learn from the experiences of one institution alone. Where state-level, regional, and national administrators can aggregate claims and establish both a transparent dialogue and constructive learning points for both individuals and institutions, sufficient quantity and variation in claims and findings may allow for a more robust dialogue and basis for administrative improvement.

This portion of the research used an interview guideline, scaling questions and anchoring vignettes to facilitate the creation of original research and associated primary data that will allow additional insight into the experiences inside the institution. It is intended to complement the previous components of the dissertation, which focused on external observations. This survey is intended to enable a better understanding of personal experiences and perceptions regarding learning mechanisms from whistleblower claims in institutions of higher education.

This portion of the exploratory research hopes to reveal personal experiences and exposure to whistleblower claims. It also aims to establish whether individuals and institutions are actively communicating with their stakeholders regarding claims that are received while also actively training individuals to be aware of the causes of whistleblower claims.

Additionally, it is intended to help individuals and institutions to prevent and avoid such circumstances from arising, and, finally, to help determine if there are policies and well-defined procedures and operational disciplines surrounding learning from whistleblower claims, in itself a multi-step process.

Additionally, it is of interest to understand some classification data related to the respondents' backgrounds, countries of origin/geographic location, type of institution they are responding for, and their role within the institution.

The decision of the primary mechanism for conducting the survey was made to employ a web tool such as Google Forms for publishing and disseminating the survey in order to reach a larger audience than say in person interviews. Google Forms as a survey tool has clear advantages in its cost (free) and the ability to compile and tabulate results automatically, which eliminates the need for survey assistance typically found in research projects of this scale.

1.3 Limitations of This Research

There are several limitations that constrained the scope and depth of data collection. These limitations include funding, staffing, timing, and availability of a larger research team to ensure broad comprehensive coverage not only within the United States, but also within Western Europe and beyond, as these issues and opportunities for improved governance are present globally.

Perhaps the greatest limitation, though, was the fact that large national organizations, the media, and institutions were mainly focused on compliance (and non-compliance) with legislated standards that require institutions to focus on protecting whistleblowers, but have no requirement for the public disclosure or analysis of such complaints. Institutions that lead the national discussion from the trustee level inside the United States were neither available to support nor to participate in this research. Among the institutions that declined to contribute included the following: at the university level, the American Council for

Trustees and Alumni (ACTA); at the college level, the Association for Community College Trustees (ACCT); inside the institutions administratively, the National Association of College and University Business Officers (NACUBO); and finally the Association of College and University Auditors (ACUA).

1.4 Summary of Introduction

This multimodal approach to exploring the nature of whistleblower claims at institutions of higher education takes four levels of analysis to develop a picture and understanding of the complexities and nature of such claims.

The motivation to understand specific claims and to undertake a field study to explore the availability of information was an important initial step in this research. To improve the coverage and power of the analysis, the field study was expanded to also expand the data set and understand further variations in the types of claims based on larger geographic areas and higher numbers of institutions, differences in approaches, and the methods of addressing the claims.

Expanding the United States-based, multi-state approach to a comparison across national boundaries allowed us to compare different approaches in different cultures and to try to understand at a high level, from an institutional transparency approach, the practices applied and their different approaches in each country, as well as which were the best practices and how they were implemented and applied.

The sum of all of the hypotheses, with each approach having different expectations and perspective and view into this multi-dimensional problem, can be seen in Figure 8:

	Research Study Component	Scope	Dimensions Evaluated
1	Field Study	Actual Claims Analysis: Ohio	Claims: Type, Quantity, Frequency Methods: Soliciting, Managing, Learning
2	Expanded Study	Actual Claims Analysis: Michigan, Massachussetts, California	Claims: Type, Quantity, Frequency Methods: Soliciting, Managing, Learning
3	Expanded Study	International Comparison: US, Hungary, UK	Methods: Soliciting, Managing, Learning
4	Expanded Study	Individual Experiences and Perceptions	People's Experiences and Perceptions

Figure 8: Overview of the four methodology levels to be employed in this research (Source: Own Work)

In the next section of this dissertation, I summarize the existing literature and research that is the foundation and basis for this new research to evaluate the mechanisms used by organizations to learn from whistleblower claims.

Chapter 2—Literature review

2.1 The Definition and History of Whistleblowing

The term "whistleblowing" has its origins in a 1972 conference paper by the famous American activist Ralph Nader (Nader, Petkas, & Blackwell, 1972). Terry Morehead Dworkin, in her foreword to the *International Handbook on Whistleblowing Research* (Morehead Dworkin, 2014), provides an overview of modern research into whistleblowing, summarizing the contributions of Janet Near and Marcia Miceli and the others who have built the foundations for international research on whistleblowing, as illustrated in Figure 9.
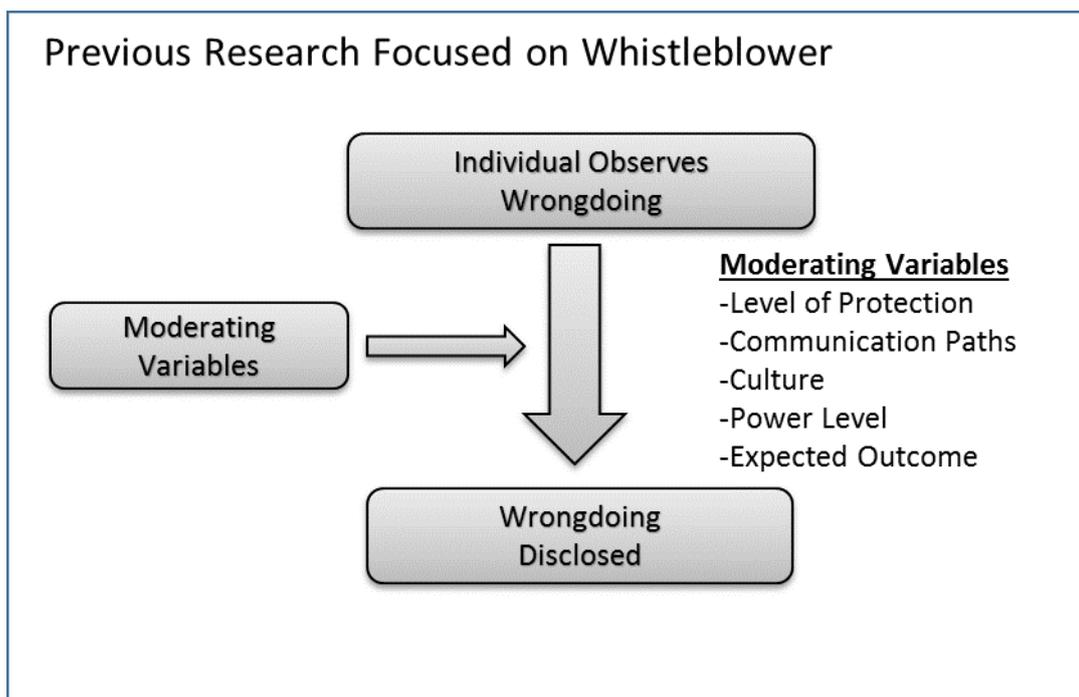
Figure 9: Whistleblower research focus on enabling disclosure (Source: Own Work)

Whistleblowing is a key control mechanism to solicit both internal and external complaints of fraud or theft or misconduct (Bertot et al., 2010; Piotrowski, 2007) and is an effective mechanism in identifying large, complex, and well-concealed acts, with approximately 40% of all theft and fraud being identified via whistleblowing claims (Lawson, 2015).

The whistleblowing or fraud reporting mechanism is faced with handling a large volume of claims, many of them groundless or trivial in nature. Penman & Omara (2016:2-7) show that only a very small portion of all reported concerns lead to actual valid findings of wrongdoing, fraud, theft, or ethics violations being investigated, stating an "Allegation vs. Inquiry Rate" of 4:1, or 20% and of the inquiries, a 41% "Substantiation Rate" – meaning that approximately 8 of 100 claims address valid issues in mature implementations. However, these few investigations initiated by whistleblowers are often the largest investigations handled by management and can have an impact on the institution that can last for decades.
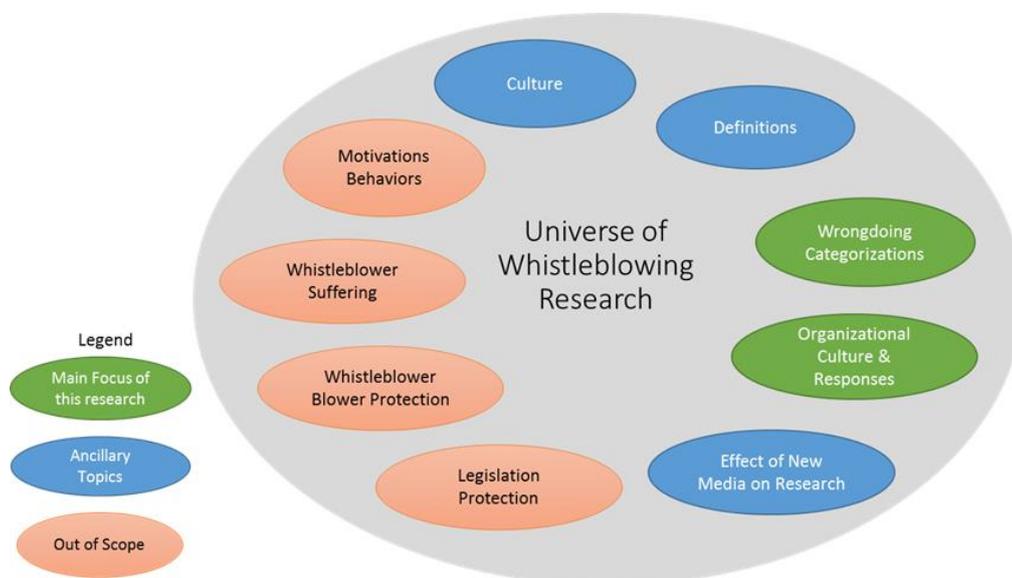
Figure 10: Scope and domain of this dissertation in the universe of whistleblowing research (Source: Own Work based on Brown et al. (2014))

The content areas of this international discussion are depicted in figure 10 with the primary focus of this dissertation shown in green: wrongdoings and their categorization, and the Organizational Culture and their responses to such claims. Shown in salmon color are the topics that have historically comprised research into whistleblowing, which has focused on the psychology, motivations, experiences, treatments, and protections of the whistleblower complainant themselves. In blue are the ancillary topics that overlap with the focus of this research regarding the culture of the society where the complaint is made or where it is received, the foundational definitions of wrongdoing and the types of

whistleblowers and recipients, and in some regards the culture and effects of technology on the research and experiences in the firms.

The following discussion of each of these foci of research into whistleblowing serves to connect this research to the history of learning, and also to allow the dissertation to focus on the main areas of focus. Expanding further on the "out-of-scope" salmon colored ovals of Figure 10 which cover four subject areas: Motivations & Behaviors; Whistleblower suffering, Whistleblower protection, and Legislation protection. Research into each of these areas consists of an extensive and substantial area of research that will be outlined here for background purposes.

The extensive research into the motivations and behaviors of whistleblowers, most recently looks at the environmental change where the burden of action is being placed upon the individual. Leys and Vandekerckhove (2014) discuss the trend that more frequently organizations are requiring or mandating that employees blow the whistle if they encounter wrongdoings, summarizing research being conducted globally. Hassink et al. (2007) in the European Union and Moberly and Wylie (2011) in the United States, with additional contributions by Vandekerckhove and Tsahuridu (2010) looking at the risks associated with mandating and requiring individual action. Vandekerckhove and Lewis (2012) observed how the evolution of legislation and guidelines often take opposing positions on whistleblowing process. Peter Roberts (2014) summarizes research into the motivations of the whistleblower, being it for personal, private, or public interest, and based on Near and Miceli's foundational work in 1985. Roberts states that Motowidlo in 1986 looked at the spectrum of behaviors ranging from pro-social organizational behaviors to self-serving; self-interest focused motivations and the intention and motivations of the whistleblower. Roberts repeats Miceli et al.'s findings in 2008 that the whistleblower's motivations do not necessarily have to be altruistic or pro-social in order to benefit the greater good. Roberts lists no less than ten other sources of significant research into the motivations and intentions of the whistleblower and their impact on the act of whistleblowing, including the works of Alford, Bouville, Chiu, Henik, Jensen,

Lindblowm, Teo and Casperz (2011), Dyek, Fredin, and Moberly.   The National Whistleblowing Center announced in 2014 the US Supreme Court's decision to ensure that whistleblower protections are extended to contractors and subcontractors of publicly traded companies (National Whistleblower Center, 2014).

Tangential to the focus of this dissertation is the substantial and moving research into the suffering of the whistleblower. Sisyphus aside, Smith (2014) provides an exhaustive overview of this research that form an overwhelming consensus that whistleblowers universally encounter suffering through isolation, and negative impacts to their careers, incomes, health, homes, and relationships, or even "obliteration" as Alford termed it in 2001.   Smith inventories the researchers who have documented the suffering of whistleblowers, including Near and Miceli, Brown, Lewis, Culp , De Maria, Martin and Rifkin, Mansbach, Gorta and Forell, and Zipparo. Smith's research includes estimates to the rates of occurrence of retaliation and suffering, as high as 95 percent in the US, and attempt to quantify and describe the types of suffering endured. Surprisingly though, Smith argues that not all whistleblowers endure suffering, and therefore argues that further research is required to consider the case of the non-suffering whistleblower.

Protection of the whistleblower and legislated protections being the third and fourth areas excluded from the research, although similar, have subtle differences in term of legislated, bare-minimum compliance and internal, best-practicable approaches to establishing policies and procedures for protecting the whistleblower – and against whistleblowers with malicious intentions.   Lewis, Devine, and Harpur (2014) summarize the research into legislated protections in the developed English-speaking world. Lewis et al. discuss the overview of civil and employment remedies available in a number of developed countries as presented originally in Dworkin and Brown in 2013.   Theories of how civil remedies, bounties, and incentives can be implemented are presented by both Faunce et. Al. (2014) and Spencer & Spencer (2014).   Spanning from the impact of the UN Universal Declaration of Human Rights Article 19, to the European Convention on Human Rights Article 10. In 2011, Devine and Maasarani in their well-received book "The Corporate

Whistleblower's Survival Guide" (Devine & Maasarani 2011) summarize the status of federal and state legislation inside the US and the highly fragmented approaches taken. This fragmentation of legislative approaches occurs naturally and is driven by the same factors that this research anticipates drive the inconsistencies and fragmentation in the approaches taken to learn from Whistleblower Claims. From the legislative protection research, Bjorn Fasterling (2014) compares the research into the legislative environment and developments affecting whistleblowers and mandated standards for civil and employer organizations. He compares the approaches to how legal systems protect and enable the freedom of expression in the UK, Germany, and the US. Fasterling compares the findings and outcomes of the country specific researchers, and advocates for the separation of the individual's right to freedom of expression as distinct and separate from the defense of the public interest on the other side.

The ancillary areas of research, which impact this dissertation and must be addressed in portion or component, but not in their entirety due to their depth and complexity, are shown in Blue in Figure 10. These are: Definitions, Culture, and the effect of new media/new technology. Definitions of terminology and their evolution are an important component of understanding the development of cultures in their openness and level of sophistication concerning addressing and utilizing whistleblowing as a control mechanism. For example, this research explores the definition of the term "wrongdoing", as a broader concept than any one of the terms more commonly found when looking at headline cases of whistleblowing such as fraud, theft, or misconduct. Skivenes and Trygstad (2014) explore the spectrum of legal definitions in several western developed countries and discuss a framework for definitions and perceptions of wrongdoing based on a social framework presented by Wulczyn et al. 2010. Miceli, Dreyfus, and Near (2014) explore the delineation of the terms "whistleblower" and "bell-ringer", with whistleblowers being internal to an organization and bell-ringers being external to the organization. This piece by Miceli et al. fulfills its goal of improving the understanding of the perspective of the claimant and the organization and the differences in effectiveness and process for each respective situation. These subtleties and caveats, bound this research and ensure it is

fitting into the current and best practicable semantics, helping the research to move forward the state of knowledge in a way that extends current research by integrating with it first. This leads to the topic of societal cultures or national cultures and how their impact on the treatment of complaints of wrongdoing are interpreted and handled. Vandekerckhove et al. (2014) explore the degree that the societal understanding of whistleblowing varies among different nations and cultures. They cite Gael McDonald for his definition of cross-cultural analysis and focus on equivalent meanings and Gerd Hofstede (2010) for the cultural influences on organizational life, where several studies show whistleblowers are more likely in low Power Distance and high in Individualism. They emphasize that Schwartz and Bardi's (2001) approach to cross-cultural comparisons may be more relevant, looking at cross-cultural similarities. They provide the dramatic example of Jewish law, which they say prohibits whistleblowing and explains the failure of whistleblowing legislation to pass into law in 2000, citing Ben-Yehuda's work 2001. The expansive list of researchers who have explored and refined methods for defining aspects of culture that can be useful for research, separate and distinct from that of a nation, are cataloged and are not explored further in this research into whistleblowing; but being essential in interpreting results and comparisons across national legal and cultural borders. The impact of technology as both enabling and weakening is explored in detail in this dissertation; however, the specific types of technology and a review of the literature regarding technology and new media are so broad that only the key overarching impacts of these revolutionary innovations are considered here. Bosua et al. (2014) explore ICT and its ability to allow for increased transparency and collaboration, with such examples as WikiLeaks, and the role it has served in revealing organizational or cultural wrongdoing, compensating in part for the destructive impact of technology on the budgets of existing media and specifically that of investigative journalists. At the time of completion of this dissertation a new phenomenon had become commonplace as well: false news; fake news, or stories created with the sole purpose of leading the public to act in a specific way, without any regard for integrity or accuracy. These aspects of ICT and new media technology are discussed in this dissertation in as far as they affect or change the way organizations can receive and learn from claims of wrongdoing.

Internal controls and their significance in preventing the misuse or misappropriation of assets is a topic that is well ingrained in financial management of publicly listed for-profit corporations (Near & Miceli, 1985, 1986, 1992). This is based in the significance of the importance of the accurate recording and reporting of activities of a corporation via annual audited financial statements, in order to ensure investors are aware of the performance of the organization (Doyle, Ge, & McVay, 2005). The application of these controls to higher education in the United States is supported by two collaborative organizations: the State Higher Education Executive Officers (SHEEO) group and the National Association of College and University Business Officers (NACUBO), which has published a number of guidelines and studies on the implementation of Sarbanes-Oxley controls over the quality of financial reporting and internal controls.

The importance of internal controls in the public sector, and specifically in higher education, to ensure that abuses and misconduct are prevented is the focus of Joe Christopher's publications in Australia. These contribute to the search to improve control over spending while reducing operating costs by sharing among institutions. Automation and shared services are among the most popular cost-reduction mechanisms. Christopher (2014) looked specifically at the case of Australia, and in a survey of chief audit executives of the 37 universities, he concluded that "flexible" arrangements had been made in implementing best-practice internal controls and that these compromises, along with incomplete legislation and policies, led to a number of opportunities to improve and strengthen controls against fraud and theft.

One approach for institutions to share and leverage compliance initiatives is to work together at the state-level and utilize a common, shared whistleblower/anonymous reporting service.).

In 1996 Near and Miceli summarized the current literature on whistleblowing from the perspective of the risks to the individual making the claim, at which time several extreme instances of retaliation had been exposed. They also looked at some legislation at the time

that protected whistleblowers. They studied whether the complaint was made via internal or external channels and how some states protected only individuals that engaged through internal channels. They state that of cases reported to the Department of Agriculture, 70% of the claims were made by public sector employees, although public sector employment made up only 20% of all employment, concluding that that public sector employees are more likely to blow the whistle. They discuss eloquently that the likelihood of someone blowing the whistle is related to the individual's confidence that their action will successfully bring an end to the abuse or misconduct. In this paper, they conclude that people who blow the whistle are not "crackpots." They also explore the likelihood of retaliation and the dependency on individual personality and organizational structure, and they call for more data on the topic.

In 1992 Miceli and Near's analyzed three studies of whistleblowing behaviors before and after a major legislative change. They found that the possibility for retaliation was higher the more opportunity the whistleblower had contact with the perpetrators. This paper points towards inconclusive evidence that legislation helps or that any specific type of treatment protects the whistleblower. In addition, they indicate that at that time many states and federal statutes were being proposed to protect whistleblowers.

The Whistleblower Protection Act of 1989 for federal employees was enhanced in 2012 with the purpose of enhancing coverage beyond federal employees and bringing whistleblowing into the jurisdiction of the Securities Exchange Commission. (Brown et al, 2014) Additionally, the US Department of Labor osha.gov domain has extensive materials available online to educate and inform the workforce of their rights and protections.

Daniel Arce, in his 2009 paper, presents models based on game theory that lead him to the conclusion that the whistleblowing protections included in the Sarbanes-Oxley Act are insufficient in providing incentives for individuals to expose wrongdoing. Arce cites Bowie (1982) and Jubb (1999) as foundational business ethics texts and the sources for his

definition of whistleblowing and elaborates on the expectations and conviction that is symptomatic of a whistleblower as they are preparing for the act of exposing what they believe to be wrongdoing. Motivation for the paper was the 2002 *Time* magazine citation of persons of the year being three whistleblowers: Cynthia Cooper (WorldCom), Coleen Rowley (the FBI), and Sherron Watkins (Enron).

Skivenes and Trygstad (2014) establish a linguistic and semantic for addressing the common denominator they term "wrongdoing," which includes a spectrum of activities that may result in a whistleblower claim, ranging from behaviors and misconduct to illegal, illegitimate, or immoral activities. Figure 11 illustrates the six dimensions of evaluating whistleblower complaints, which serves to illustrate the complexity of assessing a claim as valid or invalid.

Subjective	⟷	Objective
Values	⟷	Facts
Happens rarely	⟷	Happens often
Unintentional	⟷	Intentional
Non-public interest	⟷	Public interest
Non-vulnerable persons/groups	⟷	Vulnerable persons/groups
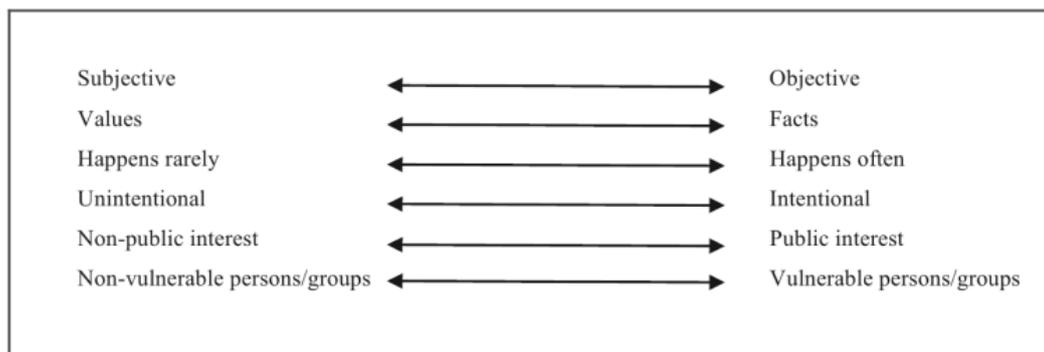
Figure 11: Six dimensions to evaluate a claim of wrongdoing (Source: Skivenes & Trygstad (2014) pg. 98)

Skivenes and Trygstad also cite the definitions of whistleblowing from legislation in the UK and Norway to compare and contrast with Near and Miceli's definition of "illegal, immoral, and illegitimate acts." In the Norwegian legal definition of whistleblowing, based on the Norwegian Working Environment Act, they state, "If there is reason to believe that an act of wrongdoing is occurring or that an individual is planning an act of wrongdoing, it is correct to blow the whistle." In the United Kingdom, legislation contained in the

Public Interest Disclosure Act (PIDA) 1998 established the criteria for a "qualifying disclosure" (i) a criminal offense; (ii) a failure to comply with any legal obligation; (iii) miscarriage of justice; (iv) danger to the health and safety of an individual; (v) damage to the environment; (vi) the deliberate concealment of information tending to show any of the matters listed above, as the authors summarize an earlier work by Lewis and Trygstad from 2009. Finally, Skivenes and Trygstad present a more narrowly defined research definition than that presented by Brown by pinpointing wrongdoing as a situation "when a person or organization does things that are unlawful, unjust, dangerous, or dishonest enough to harm the interests of individuals, the organization, or wider society."

Brown et al. (2014) discuss the spectrum of claims and claimants and provides an excellent overview and categorization of complaints, as shown in Figure 12, which highlights the growing trend and issue that complaints or reports come from outside of the organization, which is beyond the scope of the common definition of internal whistleblowers. In the figure, Brown labels the external complainant as "bell ringer," from the Dutch tradition of ringing the church bell in the presence of looming danger to the community.
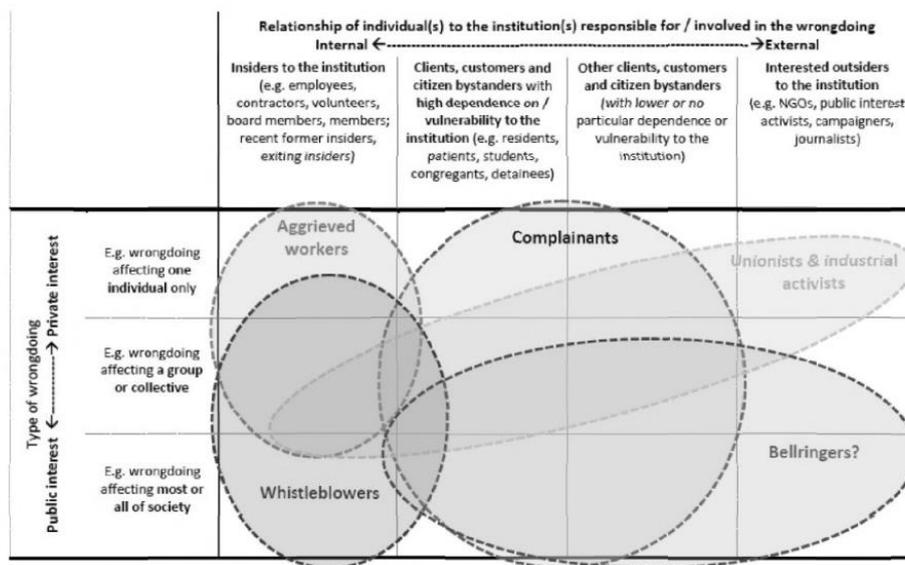
Figure 12: Dissection of wrongdoings by membership and interest (Source: Brown et al. **(2014) pg.8)**

Jane Olsen (Olsen, 2014) summarizes a number of studies and evaluates the methods used to estimate the frequency of the incidence of fraud reporting. Summarizing 33 separate studies over time and across all industries, nations, and sectors on the likelihood of people to report wrongdoings. She cites large disparities in observed frequency of reporting and outlines improvement opportunities in the approaches and methodologies that future surveys can take. Olsen also discusses the advantages of behavioral survey approach, which would generate findings that would allow for better cross-border, international comparisons.

Olsen presents an interesting term, "consistent operationalization" that the continuing repeated administration of a survey annually would improve the response rate and provide an enhanced basis for analysis over time. This is also evident in some of the surveys that Olsen consolidates, and these were repeated over a number of subsequent years.

A study by Brown in 2004 concerns a large public sector agency that found that the rate of reporting was about 1.8% of the employee population and a private sector survey performed by "The Network" that identified nine incidents per 1,000 employees (Olsen, 2014:180). These findings conflict with research performed by Rothschild and Miethe in 1999 which showed that public sector employees were more likely to report given stronger legislated protections. The effect of an employee's power position on the likelihood to report, of the employee's sector or industry, and of the public policy environment of the nation were all factors that could be found to influence likelihood to report. Olsen (2014) also evaluated the issue of non-reporting and found the measurement error of the incident rate as the basis future research, and the influence of the mode chosen for the distribution of the survey as a factor that would influence response rates—such as personal interviews versus mail versus telephone or electronic surveys.

Penman & O'Mara (2016) summarize statistics observed over five years as the leading services provider of Internet-based anonymous fraud reporting hotlines to over 2,311 firms, covering over 34 million employees, and in excess of 860,000 claims. They show

in Figure 13 that the rate of claims reported has increased slightly over time to a median of 1.3 claims per 100 employees per year.
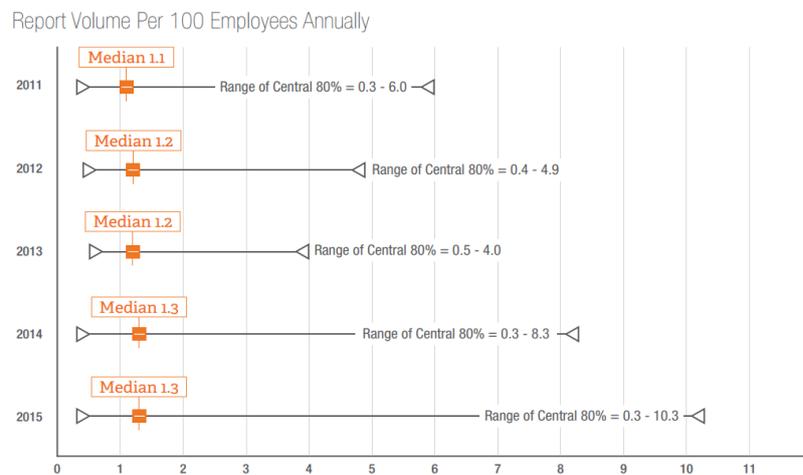
Figure 13: Frequency of incidents reported to leading service provider (Penman & O'Mara, 2016:7)

2.1.1 Organizational Non-Response

Richard Moberly, in his chapter titled "'To persons or organizations that may be able to effect action': Whistleblowing recipients" (2014), looks at the recipients of whistleblower claims and the comparatively small volume of research available that explores and evaluates the behaviors of the recipients, as well as policy and legislation that frame these behaviors.

Moberly refers to a few key works that explore the internal workings of the institution. These include the foundational works by Janet Near and Marcia Miceli (1992) which emphasizes the importance of the recipient's behaviors on the likelihood of an individual to report wrongdoing and the works of Hamid and Zainudine (2014) who look at the social aspects of the organizational dynamics and how that affects the likelihood of reporting. Several papers by Roberts (2008, 2014) and Roberts et al. (2011) address other aspects incentives and influences on the likelihood of the individual to report. Mesmer-Magnus & Viswesvaran (2005) look at internal correlates of wrongdoing from a quantitative

approach and support the general research that internal climate and culture can influence likelihood of reporting.

Moberly categorizes recipients of complaints by following the definition that Near and Miceli define: both internal and external, where external can be governmental regulatory agencies or external media, as divided by Vandekerckhove in his 2010 "three-tiered" model (Vandekerckhove, 2010). Bosua et al. (2014) expands the research by looking at the impact of new media on the likelihood of reporting. Moberly summarizes research that documents the myriad of roles, agencies, and contact points that fulfill both the internal and external recipient roll and offers one example, that of the Hanford Connecticut Nuclear Reactor, which has established an integrated internal-external committee to improve the process of reviewing and responding.

Moberly also explores research into the process that the whistleblower takes internally: first attempting to address the problem internally, then trying to escalate, and ultimately taking the matter external if resolution is not found internally. Additionally, Vandekerckhove, Brown, and Tsahuridu (2014) explore the internal mechanisms and what they identify as a propensity for individuals to attempt first to report and escalate internally, as a natural phenomenon. Neither Vandekerckhove et al. nor Moberly discuss professional codes of ethics, which actually require this kind of behavior, as exemplified by the Code of Ethics from the Institute of Management Accountants (IMA) (Institute of Management Accountants, 2016), shown in Figure 14, where a defined path of internal discussion is required.

RESOLUTION OF ETHICAL CONFLICT
In applying the Standards of Ethical Professional Practice, you may encounter problems identifying unethical behavior or resolving an ethical conflict. When faced with ethical issues, you should follow your organization's established policies on the resolution of such conflict. If these policies do not resolve the ethical conflict, you should consider the following courses of action:

1. Discuss the issue with your immediate supervisor except when it appears that the supervisor is involved. In that case, present the issue to the next level. If you cannot achieve a satisfactory resolution, submit the issue to the next management level. If your immediate superior is the chief executive officer or equivalent, the acceptable reviewing authority may be a group such as the audit committee, executive committee, board of directors, board of trustees, or owners. Contact with levels above the immediate superior should be initiated only with your superior's knowledge, assuming he or she is not involved. Communication of such problems to authorities or individuals not employed or engaged by the organization is not considered appropriate, unless you believe there is a clear violation of the law.
2. Clarify relevant ethical issues by initiating a confidential discussion with an IMA Ethics Counselor or other impartial advisor to obtain a better understanding of possible courses of action.
3. Consult your own attorney as to legal obligations and rights concerning the ethical conflict.

Figure 14: Code of Ethics from the Institute of Management Accountants (Institute of Management Accountants (2016) pg. 2)

Further disagreement in research versus practice can be found in Curtis (2006) in her research paper sponsored by the Institute of Internal Auditors, an organization that serves as a global thought and practice leader in the area of Internal Control. Curtis states, "If communication regarding observed incidents of fraud is to occur, it is vitally important to the organization that these reports be made internally, rather than through external paths. It is only in this way that organizations can meet the challenge of addressing the immediate problem of fraud and correcting the internal controls which allowed the fraud to occur." (Curtis (2006) pg.2)

Moberly (2014) summarizes the research into the psychology and roles of the choice an internal versus an external recipient. The debate is presented about requiring external reporting and particularly in the cases where injury to persons or life may be imminent, as opposed to financial or personal psychological injuries, which are categorized as internal. The research into the internal motivations for the firm to facilitate and foster internal reporting and resolution cites the numerous internal benefits and even presumes some other motivations of the firm, such as preserving privacy and minimizing financial impact.

In his conclusions and recommendations for further research, Moberly identifies a number of aspects of the internal processes as valuable areas for exploration. He identifies the

following: the recipient's role in effective resolution, evidence to support the assertion that training of hotline operators and managers improves the treatment of whistleblowers and effective resolution, and finally a scientific evaluation of the comparative effectiveness of approaches to receiving complaints: hotlines, ombudsman, internal review boards, ,etc.; fourthly the responses of external agencies to whistleblowing, and finally, a study of the beliefs and actions of supervisors - would all be valuable additions. Moberly cites Miceli et al. (2008, 2009), where they assert the importance of understanding both the effects of internal training mechanisms on the likelihood of reporting and how internal mechanisms inside the recipient are constructed. However, again, these recommendations all focus on the moderating effects of the supervisor and formal versus informal communication, and not on the organization's approach to improving its ability to solicit, manage, and administer such claims.

2.2 Internal Control Trends in Corporate and Public Arenas

2.2.1 Protecting the Institution

Thomas, Schermerhorn, and Dienhart advocate for the urgency of better corporate ethical leadership (Thomas et al., 2004). They define three levels of costs incurred by the organization as shown in Figure 15, with a spectrum of scope and damage to the institution that ethical breaches can affect. In their article, they provide real examples of corporations that had ethics breaches that reached the public and caused clear damage to their organizations.
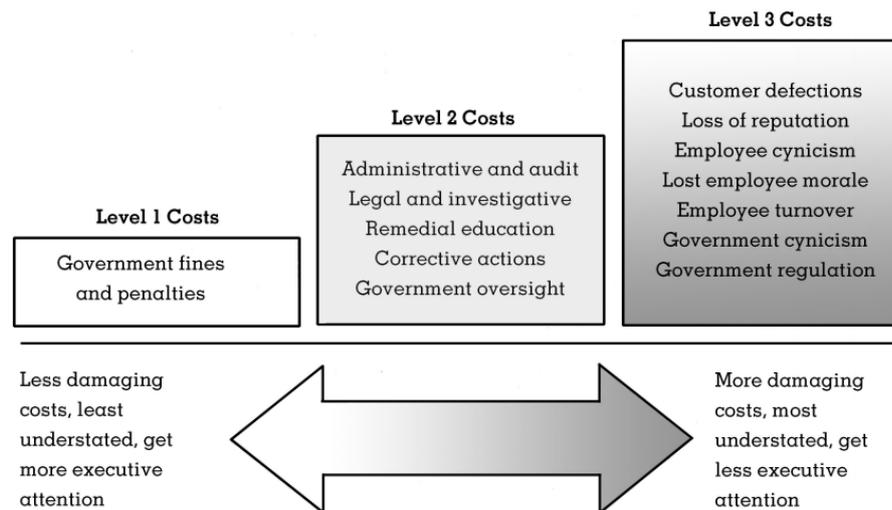
Figure 15: Costs levels of ethical breaches (Source: Thomas et al. (2004) pg. 58)

Thomas et al. argue that creating an ethical culture within the firm is essential, and they provide the case of Alcoa CEO Paul O'Neill, who established a firm tone from the top that lasted for decades and was successful in proactively establishing the culture within the firm. The choice inside Alcoa, and as presented by the authors more generally for all firms, is the choice between a "compliance program" and an "integrity program." According to the authors and the evidence presented, ethics programs are more effective and sustainable in preventing unethical behavior, whereby compliance is more detective and does not promote the correct behaviors. They cite Archie B. Carroll in his article "In Search of the Moral Manager," which describes the majority of middle managers as well-intentioned persons who simply fail to take ethical considerations into account when taking action and making decisions (O'Neill, 2002). Thomas et al. conclude that ethics programs are essential in today's business environment, that integrity programs are sustainable, and that exemplars found in both Alcoa and Costco show that they are effective in preventing unethical behaviors and also ensure that the bottom line results of the firm are solid and do not have hidden unseen risks.

Tsahuridu (2011) summarizes the research and legislation that focuses on documenting and preventing the types of retaliation that whistleblowers experience. Institutional or firm mechanisms and policies that prevent internal actors from retaliating are an important and well-covered topic in the literature, and retaliation is ultimately a failure of any existing policies to handle complaints effectively, or perhaps a sign of the absence of such policies. Whistleblower protections are now included in the framework of Corporate Social Responsibility (Vandekerckhove, 2006).

2.2.2 Learning Mechanisms

The following standard definition of Organizational Development (OD) provides a comprehensive description of how OD can contribute to creating a healthy organization: "Organization Development is an effort planned, organization-wide, and managed from the top, to increase organization effectiveness and health through planned interventions in the organization's 'processes,' using behavioral-science knowledge" (Beckhard, 1969, p. 9). Farkas and Dobrai (2012) state that the role, structure, and task of higher education institutions has become dramatically more complex in the past decades. The decision-making processes of universities are complex, and the lobbyist power is divided among several parties (Kováts, 2009). Studies in cognitive and social psychology have examined the effect of the personal and interpersonal attributes of management and the type of control-related techniques on organizational development (Sisaye, 1998) and conclude that "control systems achieve congruence between employees' behavior and management goals" (Sisaye, 1998. p. 13), which means that whistleblowing and internal control can considerably support organizational development. All institutions of higher education are knowledge-intensive institutions consisting of large pools of intellectuals and are ever striving for stronger client focus on knowledge processes, as found in Dobrai & Farkas (2008). Claire (2009) looks at the difference between compliance and audit and the common goal of improving operations and the ethical environment.

Vandekerckhove et al. (2014) look at the "Whistle While They Work, 2007" study from Australia and the frequency of training and reporting incidents that supervisors receive.

This study of one agency is the basis for much of the research that has been performed on internal training and its effectiveness in fostering an environment of receptivity, safety, and propriety. Table 2 shows the frequency of supervisor training in one Australian agency.

Table 2: Frequency of training of supervisors in one Australian agency (Source: Own Work)

What training have you had about how to deal with cases where employees have reported wrongdoing?		1st and 2nd level managers	More senior managers
		Four item scale (a–d) (0–8)	
No particular training/ missing	Mean	5.64	5.98
	N	84	44
Informal/on the job training	Mean	5.87	6.18
	N	134	119
Professional training	Mean	5.77	6.24
	N	61	85
Total	Mean	5.78	6.16
	N	279	248

Source: 'Whistling While They Work' project, Manager Survey ('Managing the Internal Reporting of Wrongdoing', 2007), Q22

This work by Vandekerckhove, Brown, and Tsahuridu (2014) introduces the concept of the "hearer" and the "protector" roles inside an organization and focuses on the training and behaviors of the individuals in supervisory or management roles who can be surveyed and studied for their behaviors and successes and failures, contrasting with the wider organizational challenge of ensuring that a system of policies and procedures is in place, as well as well-communicated, to ensure that the institution is able to handle complaints properly and, further, to continuously improve those processes.

2.2.3 Legislation

Eaton & Akers (2007) credit Abraham Lincoln with creating the first whistleblowing legislation in the US with the 1863 False Claims Act. They state, "The False Claims Act was established to offer incentives to individuals who reported companies or individuals defrauding the government, to target sales of fake gunpowder to the Union during the Civil War." (Eaton & Akers 2007, pg.67) They note that in the 1986 act, anti-retaliation protections were added, including damages for the whistleblower, who can share in up to 30% of the recovery. They cite the 1989 and 1994 Whistleblower Protection Acts and the 2002 Sarbanes-Oxley Act as the subsequent protections for federal employees and public listed entities, respectively.

Thomas et al. (2004) talk about public choice theory and the reactive nature of legislators and politicians in the wake of such crises as WorldCom, Enron, and others. They conclude that external regulations that are reactively imposed do not improve the prevention or culture inside the firm, or reduce the occurrence of highly damaging ethical breaches. They cite the example in 1929 after the Great Depression in the US when the Securities Exchange Commission was created. They point out the creation of the Environmental Protection Agency in the 1960s, the passage of the Foreign Corrupt Practices Act in 1977, and finally the Sarbanes-Oxley Act of 2002 and the creation of the Public Accounting Oversight Board.

Fasterling (2014) looks at the legislation of whistleblowing in two key areas: protecting the whistleblower and violations of laws that may affect health and safety of individuals. This paper does not, however, identify any aspect of requirements for the firms to handle with whistleblower claims in a specific manner: logging, tracking, or ensuring effective resolution of issues. Fasterling summarizes the current comparative literature, which looks at national legislation, as summarized in Table 3.

Table 3: Comparative research of whistleblowing legislation (Source: Fasterling (2014))

Scope	Authors (Year)
United States	Vaughn (2012)
Council of Europe Overview of Pending Legislation	PACE(2009)
Transparency International 10 country survey	Osterhaus & Fagan (2009), Worth (2013)
Whistleblowing provisions in International Treaties	Banisar (2011)
Compare US to UK	Callahan (2004)
Compare UK to Norway	Ellis & Trygstad (2009)
Compare US to Australia	Dworkin & Brown (2013)
US, France, German, UK analysis of Leaks	Fasterling & Lewis (2014)
Compare US to France	Morvan (2009)

Source: Fasterling (2014)

Fasterling also discusses the impacts of legislation requiring firms to facilitate the reporting of wrongdoings via the Sarbanes-Oxley Act rule 229.406(a) 4, which requires firms to document their process or provide a reason for not doing so. In the U.K., Fasterling cites the Bribery Act of 2010, which provides a complete defense if the organization can show that it had "adequate" internal mechanisms for reporting wrongdoings.

Fasterling and Lewis (2014) also look at the difference between leaking, whistleblowing, and their essential roles in protecting life and society. They conclude that firms are under pressure to ensure that internal mechanisms for hearing and addressing claims are effective. They also identify significant legislative variations regarding the protections of leakers and whistleblowers among nations, which they consider an imperative and priority to be addressed.

Dodd-Frank Whistleblower Rules finalized by the Securities and Exchange Commission in 2011 establish a new whistleblower program as required by Section 922 of the Dodd-Frank Act. Dodd-Frank Act Section 922 requires the Securities and Exchange Commission to establish whistleblower programs that will pay awards (equal 10-30% of the monetary sanction) to whistleblowers who provide the SEC with original information about a violation of the securities laws that leads to a successful enforcement of an action. In an

analysis of early versions of its proposed rule, "the SEC would have allowed whistleblowers to report only to the SEC and bypass a company's internal reporting procedures that may be established by a company, even including the procedures that are required under Section 301 of the Sarbanes-Oxley Act. The final rule calls for direct reporting to the SEC, but provides additional incentives to whistleblowers who report internally first." (Fasterling & Lewis, 2014, pg.83)

Richards, Melancon, and Ratley (2009) cite key legislation as influencing the global environment for improved controls: "Regulations such as the US Foreign Corrupt Practices Act of 1977 (FCPA), the 1997 Organization for Economic Co-operation and Development Anti-Bribery Convention, the US Sarbanes-Oxley Act of 2002, the US Federal Sentencing Guidelines of 2005, and similar legislation throughout the world have increased management's responsibility for fraud risk management." (Richards, Melancon, & Ratley, 2009, pg. 7)

2.3 Internet Communication Technologies

2.3.1 Weakening of Traditional Control Mechanism in the 21st Century Collapse of Newspapers and Investigative Journalism

The impact of the Internet and transition of the population away from traditional media sources such as printed press and radio broadcast and broadcast television toward self-directed, on-demand Internet sources has constrained the financing of traditional investigative journalism (De Burgh, 2008: 20). According to the Newspaper Association of America and Weissman (2014), the traditional means for uncovering large fraud and theft schemes in public services has been weakened by reduction of the size of the press to pre-world war II levels of revenue and circulation, as figure 16 indicates.
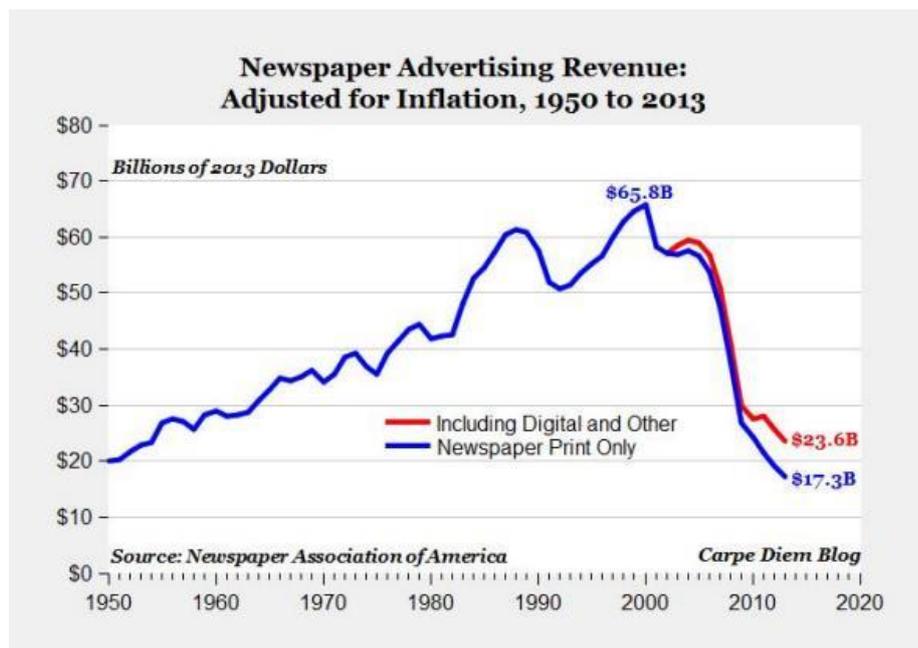
Figure 16: Collapse of funding for traditional investigative journalism (Weissman, 2014)

Aucoin (2005) and Houston (2010) study the impact of this phenomenon on how traditional investigative journalism has transformed into more activity on the internet, the impact of the larger scattered sources, and how the uptake by the larger populations is limited by their own filtering based personal tastes and self-directed consumption.

2.3.2 Improving Transparency

The link between transparency and better government is made by Gould and Amaro-Reyes (1983) in a World Bank publication, which looked at the causes and effects of corruption in public administration from a number of regional studies in developing countries and show that the rapid growth and the difficulty in identification and enforcement combine to create an environment where corruption rises to a level of national shame. Gould and Amaro-Reyes conclude that only through a public and policy campaign to raise the recognition of impartial government will corruption be eliminated.

The position that public facing transparency is not essential to the proper function of internal controls and specifically whistleblowing processes, may be based on the press and media inquiries generated by the transparency. Prior to the Internet, public notice and public information access was limited to on-site visitation or written request with paper response. For the last 15 years, institutions have had the ability to place information in easily retrievable format on their websites, which has increased transparency and improved the governance of these institutions. In a study of the impact of e-government projects in India, Bhatnagar (2003) finds that e-services greatly reduced bribery and corruption. Bushman et al. look at the determinants of corporate transparency and find legislative and political factors to be major influences of transparency (2004). Ciborra (2005) looks at the scope and impact of e-Government initiatives in Jordan and finds the scope and impact to change the very essence of government. Schmidt (2005) discusses the importance of monitoring and dashboarding in improving the control environment within the firm. Hermalin and Weisbach (2007) look at the concept of diminishing returns of increasing transparency. Shim and Eom (2009) find that the use of ICT reduces corruption and increases social capital of governance. Relly and Sabharwal (2009) find that ICT is used as an indicator of sophistication and advancement that drives long-term growth. Bertot et al. (2010) find that while ICTs can improve the efficiency of government, the culture and expectations of the populous served needs to adapt to increased transparency.

2.3.3 Extended Damage Due To Digital Access to Archived News and Headlines

The ability of adverse headlines to persist indefinitely, that cause extended reputational damage as a consequence of unmanaged claims of wrongdoing, can be exemplified by the legal debate that persisted inside western economies over the last 20 years as labeled "the right to be forgotten" pertaining exclusively to individuals. These debates substantiate the ability of what would have been long-forgotten news to persist indefinitely, or as long as the general public finds relative curiosity and fascination. Due to the impact on individuals and institutions, this topic has been widely researched and debated, as summarized by de Terwange (2011), Solheim & Henning (1998), and Escoffery & Bauer (2012). Therefore,

the benefit and value of proactively learning from whistleblower claims can have substantial benefits if such persistent, damaging, large-scale incidents are avoided or minimized.

2.4 Whistleblowing in Higher Education

The importance of the more general function of internal controls in the public sector and specifically higher education to ensure that abuses and misconduct are prevented are the focus of Joe Christopher's publications in Australia, which contribute to the search to improve control over spending while reducing operating costs by sharing among institutions. Christopher (2014) looks specifically at the case of Australia and, in a survey of Chief Audit Executives of the 37 universities, concludes that "flexible" arrangements had been made in implementing best-practice internal controls and that these compromises, along with incomplete legislation and policies, lead to a number of opportunities to improve and strengthen controls against fraud and theft.

Specific focus on public universities and the role of internal audit in the efficiency of the administration in Australia was studied by Joe Christopher, but his research does not specifically address the processes of whistleblowing. Christopher finds that there is considerable flexibility in the requirements and implementation of an Internal Audit function and that this flexibility leads to non-compliance and a variety of implementations that deviate from the best practices (2014).

In Hungary there were several cases of fraud, theft, or misconduct revealed in the last years; however, there were no universities concerned in the 30 most important scandals until 2011 (Koczó, 2011). Nevertheless, between 2011 and 2015, new cases became known to the public as a result of the investigations of the Government Control Office (KEHI) and the State Audit Office of Hungary (ÁSZ), which are responsible for the operation of control mechanisms. Their reports revealed cases regarding unethical hiring and pay practices, theft of institutional resources, and theft of student funds (KEHI, 2015). These results remarkably contributed to a new form of governance of public higher

education institutions in Hungary, reducing institutional autonomy and allocating more decision-making competencies to the state. Chancellors are now the decision-makers in economic, financial, controlling, internal control, audit, labor, management; informatics and many other cases (Act on the National Higher Education, 2011). According to Mezey (2014), the higher education institutions in Hungary were not ready to handle the problems when ethical conflicts occurred.   Further evidence of this lack of preparedness has emerged through the case of Gyorgy Mikonya, former dean of the ELTE, Hungary's premier liberal arts university (Orban, 2017).

The application of controls to higher education in the United States is facilitated by the National Association of College and University Business Officers (NACUBO), which has published a number of guidelines and studies on the implementation of Sarbanes-Oxley like controls over the quality of financial reporting and internal controls. The State Higher Education Executive Officers (SHEEO) Association provides a forum for collaboration and sharing of best practices among higher education leaders at the state level.

McMillen (2014), in his doctoral dissertation at Auburn University, focused on assessing the level of self-adoption of the NACUBO recommended guidelines for Universities and Colleges to adopt Sarbanes-Oxley whistleblowing best practices to protect whistleblowers and solicit claims of wrongdoing.   This research showed, in the US, an increase in self-adoption from 65% in 2007 to 83% in 2013 via the NACUBO annual fiscal officer's survey. Sarbanes-Oxley can be considered the rebirth of awareness of self-governance of fraud and theft, which is a starting point into self-awareness and governance of the bigger universe of wrongdoings.

2.5 Learning Mechanisms in Higher Education

Structured organizational learning in higher education is guided by two structures – that of the non-governmental accrediting institution, and its counterpart the state or governmental accreditation - and their respective frameworks, which often overlap in specific countries, such as in Hungary and the United Kingdom, or exist as separate

structures, as they do in the United States.   The separate approach is discussed here for sake of addressing additional complexity, which in many regards, may apply analogously between the states of the US and the states of the EU. Structured learning is a criteria for the continued functioning and sustainability of the organization, exists as a branch of management science as summarized in March (1991) and Levitt & March (1988)

2.5.1 Accrediting Bodies and the Institution

The framework that exists inside the United States to certify to stakeholders that an institution meets the criteria of recognition and value that is consistent with the designation of higher education is maintained by seven regional accrediting organizations.   These institutions establish relatively similar practices for institutions to provide evidence that their organization is improving, delivering a quality product and service to its community, and maintaining the academic and ethical standards that are pre-requisite with higher education.   One specific well-documented case of this approach to providing evidence is the Higher Learning Commissions (HLC) "AQIP" pathway to accreditation. The AQIP pathway requires action projects, strategic forums, and focused improvement initiatives to be planned over 7 to 10 year improvement cycles.

These accreditation projects and strategic forums are directed through the institutions shared governance structures. (Rhoades, 2005; Gerber, 2001) This provides an existing framework for institutional learning to embrace the topic of learning from whistleblower claims. In the recommendations section of this dissertation, this framework is expanded upon.

2.5.2 State-level and Federal Legislated Compliance Requirements

In the United States, at the national or federal level, higher education is governed and funded through the US Department of Education. The US Department of Education Office of the Inspector General (OIG) is responsible for monitoring and ensuring controls are in place inside of the Department of Education and programs that are funded by the Dept. of

Ed.   The Department of Education maintains several regular publications to ensure transparency and facilitate some learning through well researched and documented cases of fraud, theft, waste, and abuse. In its publication series, "Management Challenges" the Inspector General presents and discusses some important topics for institutions of education at all levels to consider. Nowhere has there been any information published about the aggregate quantity and nature of the claims that have been received by the Inspector General through its numerous whistleblowing portals (MISUSED, and OIG Fraud Hotline). The OIG publishes a summary of major investigations in its "Semi-Annual Report to Congress" which can be considered a valuable resource for learning and preventing wrongdoings at other institutions.

2.6 Existing Studies

This section of the literature review focuses on existing surveys that may be similar or contribute supporting information or positions to the research topic at hand: how institutions learn from whistleblower claims. Theses existing studies are presented and ordered by their relevance to higher education and the processes inside the institution.

2.6.1 National Association of College and Business Officers (NACUBO) studies

The National Association of College and University Business Officers (NACUBO) is the leading association of leaders and guides most policy and practice standards inside of the United States.

Grant Thornton, a leading advisory firm in the U.S., publishes annual advisory trend reports that provide guidance to the board-level governance of higher education and nonprofits. In their 2015 report on higher education, they cite governance and challenges facing governance mechanisms as a leading issue, and they include an initiative started by the Association of Governing Boards of Universities and Colleges commission report "Consequential Boards," which advised that boards help institutions regain public support

for higher education by following a prescribed set of steps, including "avoiding self-dealing and conflict-of-interest" among board members.

Menditto and Gordon (2008) summarize activities of a second survey conducted by NACUBO focusing on the implications of Sarbanes-Oxley legislation on higher education governance best practices. The original survey was conducted in 2004 and repeated in 2007, and according to Menditto and Gordon, completed by 396 of 2,151 member institutions. Beyond reaffirming audit committees were a prevalent and positive practice, the following mechanisms were reported practices for soliciting whistleblower claims:

1. Human resources (by 54 % of participants)
2. Internal audit (49 %)
3. Legal counsel (42 %)
4. The audit committee (37 %)
5. The board of directors (16 %)

The survey attempted to categorize the types of claims institutions received and these were presented in the report with the following categorization:

1. Accounting and finance issues (94 %)
2. Human resources complaints (83 %)
3. Regulatory issues (78 %)
4. Environmental health and safety issues (71 %)
5. Information technology issues (63 %)
6. Academic affairs (57 %)
7. Athletics and research (less than 50 %)

The report also emphasized the importance of the code of ethics, fiscal certifications, and internal audits.

Motley (2009), in a NACUBO Business Officer publication, talks about the processes that the institutions can take to improve the likelihood of a complainant to report wrongdoing and measures the board and administration can take towards establishing anonymous reporting and compliance focus with US federal procurement regulations and the IRS 990 report. Motley states that 250 universities and colleges were using a specific third-party reporting tool that collected over 80% of all of the claims made through their hosted web reporting tools.

Mattie et al. (2005) outline the implementation of Sarbanes-Oxley internal control regimes in higher education at a number of universities who voluntarily implemented Sarbanes-Oxley style controls over financial reporting and disclosure. The documented in the proceedings published by Price Waterhouse Coopers, a prestigious audit and accounting firm to the largest universities, focusing on four key areas: governance changes, internal control improvements, certification of financial reports, and risk management. Governance changes focused on enhancing accountability for the fiduciary authority vested in the leaders of the university. This is then detailed further in the discussion of the certification of the financial statements and audit reports, in which the leadership is attesting the accuracy and integrity of the reporting, disclosing any weaknesses or issues, and accepting accountability for any wrongdoings or misrepresentations. This included the establishment of an Audit Committee to assist in the review and verification of the accuracy of these reporting processes. Participants in this study were from the states of New York, Massachusetts, and California. Improvements in internal controls to enhance accountability throughout the organization were essential in pushing responsibility down through all levels of the organization – with a strong training and communication component. This included certification at all levels of accountability within the organization, to ensure that all stakeholders were aware of the importance of transparent, honest, and ethical disclosures of financially relevant transactions. This framework is the basis for improving the ethical infrastructure of the institution – although focused primarily at this point in time – solely on financial processes.

2.6.2 American Society of Fraud Examiners Annual Report to Nations

The Association of Certified Fraud Examiners (ACFE) is a leading practitioner group of certified fraud professionals, global in scope with 75,000 practitioner members, who are trained in investigating and prosecuting fraud. It conducts a biannual survey of fraud activities and publishes the findings, its Report to Nations states. In their 2014 report (ACFE, 2014), which encompasses 1,431 cases of fraud from all sectors and countries, they state that 22% of the claims they looked at involved theft of over $1 million USD. This is represented in Figure 17, which shows the dollar distribution of losses reported to the survey.
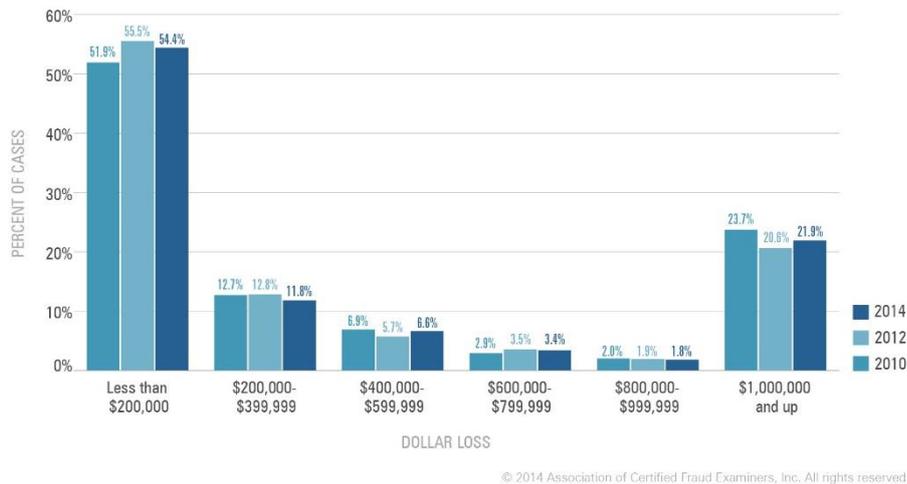
Figure 17: Distribution of average loss due to theft and fraud (ACFE, 2014)

The ACFE Report covers how and where fraud is committed, by country, by person, by demographics of perpetrator, by type of organization or firm that is the victim, and describes a number of red flags that perpetrators demonstrate. Finally, they summarize the results of criminal prosecutions and the recovery of losses.

2.6.3 Institute of Internal Auditors

The Institute of Internal Auditors (IIA) has over 180,000 practitioner members around the globe, focused on the practice of internal control and safeguarding organizations. Ian Peters, CEO of the IIA in an interview with *Audit & Risk Magazine* (Peters, 2014), talks about their Head of Internal Audit's (HIAs) survey, which was sponsored in the UK by the Public Concern at Work (PCaW), and which found that lack of appropriate training was prevalent, where 70% of respondents said their organization didn't offer training to any staff, and 57% said they didn't train employees with named responsibilities inside their whistleblowing policy.

In the UK, the PCaW established a code that set out principles by which courts and tribunals could deal with whistleblowing cases and called for greater oversight of whistleblowing schemes as a result of the survey.

Additionally, Peters, as shown in Figure 18, asserts that 70% of whistleblowing schemes are reported to the internal audit as the main recipient of whistleblowing complaints. The survey found that 45% of Audit Heads focused on investigating complaints and claims.
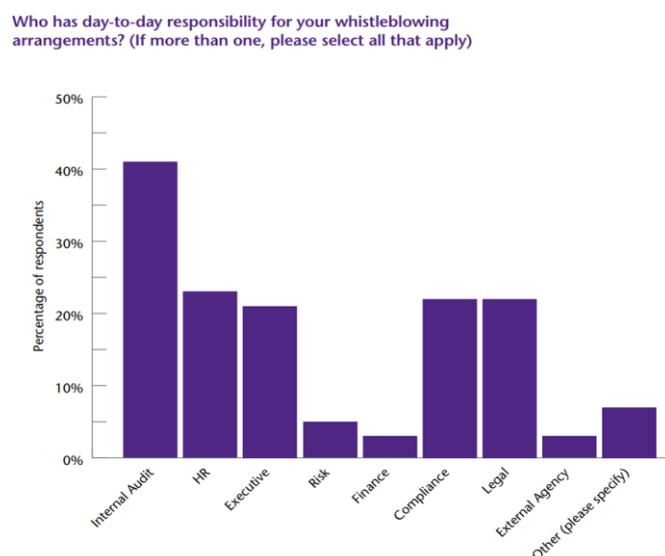
Figure 18: Where complaints are reported inside the organization (Peters, 2014)

Curtis (2006) in a study sponsored by the IIA, looked at commercial users (reporters) and respondents (recipients) of whistleblower solicitation mechanisms such as those required by Sarbanes-Oxley. Curtis states that at that point in time, there was no research looking at the factors that influence the behaviors of the recipients of whistleblower claims, and she asserts that hers is the first survey to look at this aspect. The scope of the survey was the Dallas, Texas, chapter of the IIA and therefore was geographically limited and included results from 90 respondents from all sectors of public and private entities that were large enough to warrant their own Internal Audit capability. Five survey questions asked about the mechanisms and point of arrival of complaints within the organizations. 71% of the respondents had a code of ethics which required disclosure of wrongdoing, and 64% of the respondents' organizations had hotlines or other reporting mechanisms to allow for the solicitation of such disclosures. As the survey was conducted in 2005, the respondents said 78% of firms used a telephone, and only 34% used the web, with another 8-10% using other mechanisms, such as postal mail or person-to-person reporting. Curtis then provides a vignette to the survey respondents and tries to evaluate their likelihood of responding. These results are shown in Table 4, indicating the respondent's action as a function of materiality of the wrongdoing and the supervisor's awareness of inclination to report ("is aware"/"not aware"), where a supervisor's ability to identify the source of the complaint has a negative impact on the likelihood of reporting. The scenario options point to various interpretations of correct process that should have been reinforced or driven by training.

Table 4: Respondents' likelihood to report wrongdoing by supervisor (Curtis, 2006)

Table 1
Question: What should the employee (assistant/warehouse employee) do?

The following represents the percentage of respondents: who selected this alternative as their first step (who selected this alternative among all possible feasible actions).

Scenario:	1a .5% of total expenses	1b 6.0% of total expenses	2a Only person – not aware	2b Only person – is aware	2c Not only person – not aware	2d Not only person – is aware
Speak to the superior who is committing the misdeed (controller/supervisor) personally	72% (84%)	74% (82%)	24% (49%)	58% (65%)	30% (65%)	47% (58%)
Speak to the V.P. (of Finance/Operations) to whom the superior reports	9% (80%)	9% (88%)	27% (75%)	14% (76%)	23% (72%)	16% (66%)
Use the confidential employee Hotline	9% (82%)	13% (91%)	46% (96%)	28% (94%)	41% (96%)	31% (92%)
Do nothing	9%	2%	3%	0%	4%	5%

Curtis then dissects these results by the dimensions of organizational role, type of reporting mechanism, and perception or likelihood of detection. Curtis then is able to explore in detail inside three companies that provided a higher level of access to their employees. The survey found that training and reminders were conducted at least annually inside the participants and a relatively safe culture was perceived by respondents, who felt that the likelihood of reprisal for reporting wrongdoing was relatively low, for both the institution and individual. This level of training sets a standard and high expectation for the public sector administration of Universities and Colleges.

2.6.4 American Institute for Certified Public Accountants

According to their website, the American Institute for Certified Public Accountants (AICPA) is the world's largest association of accounting professionals, with over 422,000 members in 144 countries. In its 2015 whistleblowing policy template for nonprofit organizations

(http://www.aicpa.org/interestareas/notforprofit/resources/governancemanagement/down loadabledocuments/not-for-profit-whistle-blower-policy.docx), the policy calls out for three key components: the requirement to disclose established in the code of ethics, the solicitation of disclosures through an anonymous mechanism, and an internal process to address and respond to the disclosure. This policy makes no mention of an internal process to analyze and improve the organization on the basis of the compilation of claims over time as lessons learned, nor does it require or promote any form of reporting or disclosure to stakeholders about the nature, the frequency, and the cumulative, additive significance of claims.

In 2009 in their joint report "Managing the Business Risk of Fraud," co-authored by the IIA and ACFE, the AICPA provides an overview of best practices for governing board members and trustees of an organization on best practices to manage and mitigate the likelihood of fraud damaging their businesses. They outline the scope of responsibilities driven by compliance and legislation as opposed to simply better governance; however, they do identify several key concepts as essential for the governance of the firm and "what it is doing to better prevent fraud, or at least detect it sooner." These are included in the scope of the reports five key principles, shown in Table 5.

Table 5: Five key principles for pro-actively managing fraud risk (Richards, Melancon, & Ratley, 2009, pg 8)

Principle 1: As part of an organization's governance structure, a fraud risk management program[6] should be in place, including a written policy (or policies) to convey the expectations of the board of directors and senior management regarding managing fraud risk.

Principle 2: Fraud risk exposure should be assessed periodically by the organization to identify specific potential schemes and events that the organization needs to mitigate.

Principle 3: Prevention techniques to avoid potential key fraud risk events should be established, where feasible, to mitigate possible impacts on the organization.

Principle 4: Detection techniques should be established to uncover fraud events when preventive measures fail or unmitigated risks are realized.

Principle 5: A reporting process should be in place to solicit input on potential fraud, and a coordinated approach to investigation and corrective action should be used to help ensure potential fraud is addressed appropriately and timely.

However, in none of the discussion or policy templates provided in this practitioners' guide do the authors outline the benefit of analyzing actual claims for the purpose of learning and improving the organization's immunity to fraud. The policy recommendations and guides do call for a review of the policy documents themselves for effectiveness as part of a "continuous monitoring" program, but do not specifically address learning from the actual claims, valid or not.

2.6.5 The Ethics Compliance Initiative

The Ethics & Compliance Initiative (ECI) (www.ethics.org) is a focused, non-profit entity, supported by 450 member organizations, offering certifications, conducting research, and facilitating global discussion of ethics. In their 2016 Global Survey of Business Ethics, the eighth such survey since 1994, they cover the spectrum of risks focusing mainly on workplace integrity and drivers of higher and lower levels of ethics. They also identify the risk associated with international subsidiaries and supply chain risk to a major brand, and specifically they identify the additional risk of organizational change and how that can drive opportunities for unethical behavior. This report identifies four key stresses that exist within organizations: pressure to compromise standards which was reported by 22% of the respondents, 33% observed actual misconduct (people not following the rules), 59% stated they reported in an environment receptive to reporting misconduct vs. silence, and 36% of reporters said they experienced retaliation of some degree, such as silence and aggressions, among other responses. Table 6 shows the demographics of the 13,000 respondents to the survey.

Table 6: Demographics of respondents to 2016 Globe Business Ethics Survey (ECI, 2016)

DEMOGRAPHIC BREAKDOWN OF GBES DATA BY AGE, GENDER & ORGANIZATION TYPE[1]

Country	AGE				GENDER		ORGANIZATION TYPE			
	18-29	30-44	45-64	65+	Male	Female	Private Organization	Half-private Half-public Organization	Public Administration Organization	Not-for-profit Organization
Brazil	26%	40%	32%	2%	59%	41%	63%	4%	30%	2%
China	25%	41%	32%	2%	56%	44%	52%	19%	20%	9%
France	21%	38%	40%	1%	52%	48%	54%	6%	36%	4%
Germany	20%	32%	46%	2%	53%	47%	65%	10%	20%	6%
India	34%	38%	25%	3%	69%	31%	78%	7%	13%	3%
Italy	12%	40%	46%	2%	58%	42%	62%	9%	26%	4%
Japan	15%	33%	40%	12%	59%	41%	82%	3%	7%	8%
Mexico	30%	36%	31%	3%	67%	33%	70%	6%	20%	4%
Russia	22%	38%	38%	1%	54%	46%	60%	16%	20%	5%
South Korea	16%	36%	42%	6%	61%	39%	75%	10%	7%	7%
Spain	14%	45%	40%	1%	54%	46%	61%	7%	28%	4%
United Kingdom	23%	35%	39%	4%	53%	47%	63%	4%	27%	6%
United States	24%	34%	37%	6%	55%	45%	59%	6%	23%	12%

Brazil, India, and Russia were identified as the most challenging nations to perform business in with very high rates and susceptibility to fraud and ethical breaches of the main categories shown in Table 7. This is important for the research as a comparison of international experiences with fraud and shows that cultural differences will be a strong driver of variation in these experiences.

Table 7: Types of wrongdoing experienced in high-risk countries (ECI, 2016)

CATEGORIES OF MISCONDUCT[18]	COUNTRY WITH HIGHEST RATE OF OBSERVATION	GBES MEDIAN
Talent-related Misconduct	Brazil (44%)	28%
Bribery and Corruption-related Misconduct	India (30%)	16%
Fraud, Lying and Stealing	India (44%)	31%
Regulatory-type Violations	Russia (52%)	31%
Contracts-related Misconduct	India (38%)	21%

In analyzing these findings, ECI finds that 10% of the respondents reported that the misconduct was a pervasive organizational problem that was also sustained and repeated over time. ECI advocates for reinforcement of ethical standards, establishing a culture of non-compromise and an environment of protection and safety for whistleblowers, and providing effective means for the solicitation of complaints.

2.6.6 The Government Accountability Project

The Government Accountability Project (GAP) (www.whistleblower.org) issues a number of reports each year, which are specific to issues and topics where government actions may threaten the well-being the populations they are intended to serve. The list of reports is included in Table 8 and includes country-specific and global reports.

Table 8: Reports authored by the Government Accountability Project (www.whistleblower.org)

List of Government Accountability Project Authored Reports
Representative Cases in Which the United Nations or its Funds, Programmes or Agencies have not Complied with Best Practices in Whistleblower Protection (August 2014)
The Rise of the American Corporate Security State: Six Reasons to Be Afraid (April 2014)
Banking Sector Accountability: Understanding and Handling the Complex 'SOX Plus One' Whistleblower Claim (September 2013)
The Current State of Whistleblowing Law in Europe (April 2013)
Deadly Dispersants in the Gulf: Are Public Health and Environmental Tragedies the New Norm for Oil Spill Cleanups? (April 2013)
International Best Practices in Whistleblower Protections (March 2013)
Tipping the Scales: Is the United Nations Justice System Promoting Accountability in the Peacekeeping Missions or Undermining It? (September 2012)
Traitor: The Whistleblower and the "American Taliban" (February 2012)
How the World Bank's Peer Review Services Deny Staff the Right to a Fair Hearing (August 2011)
The Corporate Whistleblower's Survival Guide: A Handbook for Committing the Truth (April 2011)
Whistleblower Witch Hunts (December 2010)

These reports and critical objective perspective are evidence of the global scope of wrongdoings at all levels of global and national government.

2.6.7 The Project on Government Oversight

The Project on Government Oversight (POGO) (www.pogo.org) website states, founded in 1981, POGO originally worked to expose outrageously overpriced military spending on items such as a $7,600 coffee maker and a $435 hammer. In 1990, after many successes reforming military spending, including a Pentagon spending freeze at the height of the Cold War, POGO decided to expand its mandate and investigate waste, fraud, and abuse throughout the federal government.

An example of their work, focusing exclusively on the US Federal Government, is shown in the infographic in Figure 19:
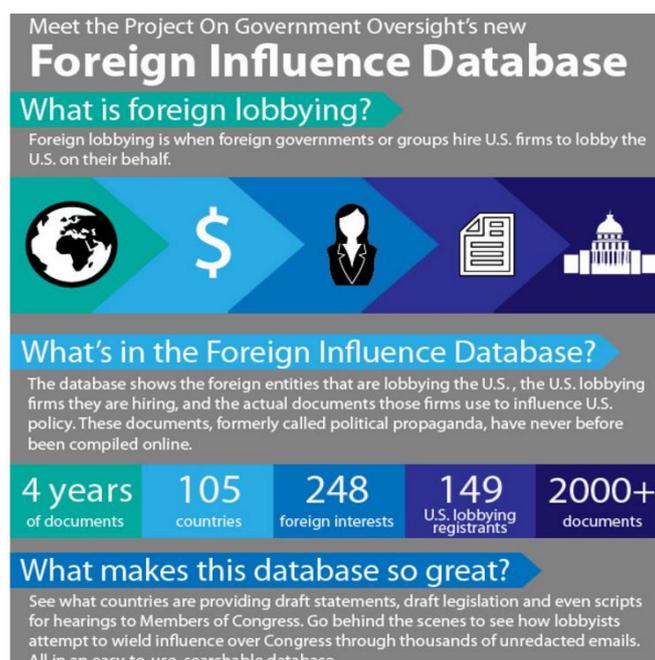
Figure 19: Project on government oversight infographic addressing key issue: Foreign influences

The POGO is an example of a nonprofit, non-governmental oversight body that performs the public service of monitoring and independent third party investigation of whistleblower claims against the US federal government.

2.7 Summary of Literature Review

This survey of the current and historical global literature base spanning both practitioner and research domains shows a clear focus on enabling wrongdoing to be exposed and the efforts of protecting the whistleblower. Repeatedly in the research literature and practitioner domain, calls are made for additional research and analysis in the study of what the actual recipient organization does to respond to complaints, to handle and manage such complaints. The topic of using actual claims as the basis for learning and improving the organization on an ongoing basis has escaped mention until this point, and provides a clear path for the work identified in the scope of this dissertation.

Chapter 3—Methodology

3.1 Mixed Methods Research Overview

This chapter summarizes the mixed methods approach taken in compiling this exploratory research. It consists of four discrete parts or "levels" of research, each with its own unique approach and scope. As a means of vetting the material and improving the focus of the research, each level of research resulted in one or more journal publications. The four discrete parts of research are represented in the visualization contained in Figure 20, which shows the methods used to obtain insight into the topic of whistleblower claims and the institutional learning mechanisms used to prevent wrongdoings in institutions of higher education.
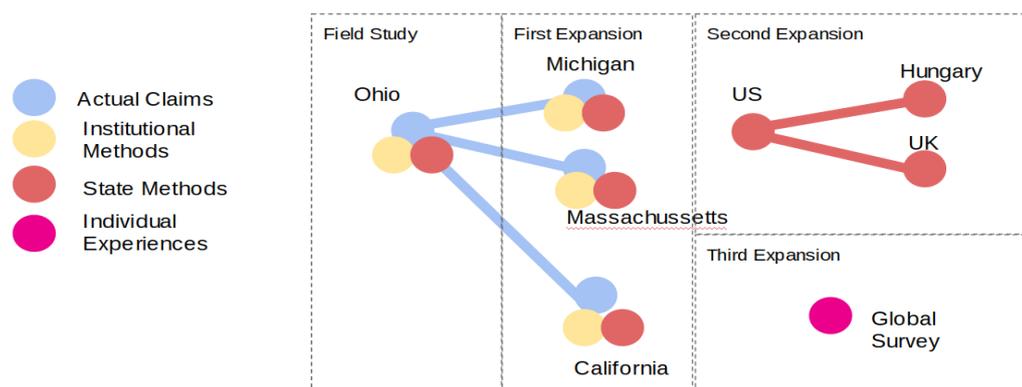
Figure 20: **The four phases of the exploration of how institutions learn from whistleblower**

Landman (2008) provides the methodological foundation for studies of comparative politics between various geographical areas and responsibility levels. The methods Landman summarizes and applied here are applicable to various geographical areas such as the comparison of policies and systems between states and nations. Landman attributes these techniques to the foundational work of Mills in 1843, and developed further by more than a century of policy research. Landman describes the researcher's tradeoff between detail focused research into policies inside of an entity and external comparisons which

necessitate abstraction and generalization. Landman cites Ragin from 1987 for describing the value of the case study and specific storytelling and detail analyses of cases allowing for greater focus and deeper contextual exploration of causes and impacts, and allows the exploration of the evolution and unfolding of events. The Most Similar System Design (MSDS) and Most Different System Design (MDSD) approaches are presented and are the basis for the methods of comparisons used in this research. Landman cites the works of Przowski and Tune in 1970 and Faure 1994 as recent studies of these techniques. Peter Lor (2012), in providing the foundation for comparative international studies in Librarianship and research in general, summarizes the nomenclature used in qualitative studies, shown in Figure 21, and the application of mixed methods to qualitative, comparative exploratory social science research.

Figure 21: Relationship of Methodological Choices (Lor, 2012:131)
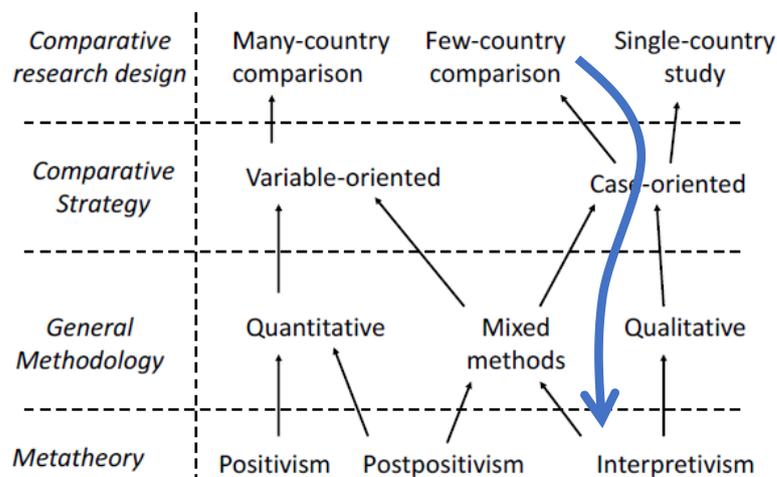
This comparative analysis, is a foundation of a grounded approach, combining the naturalist approach of simply observing qualitatively and theF positivist approach to taking a systematic approach to the observation and analysis, as Grounded Theory approach would require (Babbie, 2013, pg. 328). It could be argued that this dissertation and the approaches taken to capture both the macro level and micro level experiences and practices include many components of the qualitative research approaches outlined by Babbie.

Institutional Ethnography, or the study of institutionally oppressed individuals, might be considered a relevant classification, as certainly all of the core research on the experience of individual whistleblowers would be. Babbie describes the approach of Participatory Action Research, where the researcher, in conducting their research assists and aids the participants, may be more appropriate, where as indeed, respondents to surveys and publications shared by this author during the course of the dissertation work confirmed both a desire and need for institutions to improve their operations, processes, and disciplines. In summary, the four methods and levels taken in this dissertation are as follows:

Level 1: Actual claims by whistleblowers, single state, multiple years - Evaluating actual whistleblower claims data obtained through sequential, iterative public records requests from the State of Ohio.

Level 2: Expanded study: Actual claims by whistleblowers, multiple states, multiple years - Repeating the sequential, iterative request for public information in other states, where available. Michigan, Massachusetts, and California were selected for their size and prominence in Higher Education.

Level 3: Expanded study: Comparing specific mechanisms of fraud prevention in multiple countries - Analyzing mechanisms for solicitation and reporting of claims as observable from outside of the institutions via ICT at a sample of institutions in the US, Hungary and the UK.

Level 4: Expanded study: Web survey of individuals' experiences - A survey of individuals to identify individual experiences with wrongdoings and their perceptions of institutional mechanisms to learn from whistleblowing claims.

3.2 Detailed Description of Methods Employed

The four methods and levels of details are visually summarized in Figure 22 in order to describe the interaction among the levels of analysis and the cross-sections of institutions and persons and countries that were included in or participated in the research.

Methodology	Application in this Dissertation
Postivism *Exploring and discovering the natural order of things*	Approach taken in the field study
Grounded Theory *Systematic approach to observation and analysis*	Approach taken in expanding the field study and obtaining multiple data points for the basis of comparative analysis
Institutional Ethnography *the study of institutionally oppressed individuals*	Primary method used by classical whistleblowing research.
Participatory Action Research *in conducting the research assists and aids the participants*	To some extent, this research may have impacted and influenced the administration of higher education in the US
Case Study Approach *Methodically exploring and analyzing specific real-world cases, situations, and decisions*	Used repeatedly throughout the research to summarize findings

Figure 22: Methods and levels of detail in present study (Source: Own Work based on Babbie, 2013 and Gummeson, 2000)

Lor (2012:128) provides an overview of the framework and nomenclature used in comparative studies defining Levels of Analysis (such as university, state, nation, or individual) the Units of Analysis (such as policies, web-presence/ICT, reports, records), and the Units of observation (such as count of claims, or specific claims of fraud, or key

controls, or funding, or population). Detail descriptions of the research segments and the design of the data collection for each of these efforts is discussed below.

3.2.1 Research Design—Level 1: Actual Claims by Whistleblowers, Single State, Multiple Years

This level of research methodology summarizes the initial field study performed looking at the state of Ohio and evaluating actual whistleblower claims data from the state of Ohio and investigator work papers. This research was conducted using an exploratory case study approach to obtain and evaluate actual claims of fraud, theft, or misconduct. The approach taken was to analyze at a high level the frequency and quantity of claims made against universities and colleges, and then to research in more depth each of the claims, by studying the details of investigations of such claims to understand the nature of the issue, which functions are affected inside of the institution, and which institutional process deficiencies may have allowed these issues to occur. This research analyzed whistleblower complaints against the 45 public colleges and universities, the 22 universities and branch campuses, and the 23 two-year colleges that are funded by and administered by the state of Ohio in the United States of America.

This dataset includes claims for all public institutions funded by the state of Ohio, including, in addition to universities and colleges, the state's prisons, elementary education school system, and all other state governmental bodies. The data was filtered by description of the institution, and only claims specific to universities and colleges were extracted and used for the purpose of this study. The resulting selected dataset for this study represents only 12 claims and less than 1% of all claims received by the state of Ohio in the time frame under consideration.

In order to research the details of each of the twelve claims identified above, additional public records requests were made to the Auditor of State, requesting copies of all work papers and any generated work products, such as finding summaries or reports. These work papers and reports were provided by the Auditor of State for all of claims under review.

The actual work papers provided the researcher consisted of varying levels of detail and complexity based on the nature of each case and the severity and validity of each claim.

3.2.1 General Background of Research

Ohio is one of the top 10 states ranked by GDP which exceeded $580 billion USD in 2015. It has 26 public universities and colleges with an enrollment of 937,000 in 2013, and these receive approximately $1.85 billion in state funding annually, representing approximately 15% of the total college and university annual revenue of $12.5 billion.

In a conference paper, Schmidt & Farkas (2015) and subsequent publication Schmidt (2015) analyzed claims made in the state of Ohio using a publicly available data source. The data set that was used for the initial part of this research was composed of fraud ethics claims logged by the Ohio Auditor of State, and the dataset spans 28 months, starting in May 2012 and ending in September 2014. This data was provided by the Ohio Auditor of State's open government unit, and the data is available online at https://ohioauditor.gov/fraud/ (Yost, 2016).

This dataset includes claims for all public institutions funded by the state of Ohio including in addition to universities and colleges, prisons, the elementary educational school system, and all other state governmental bodies. The data was filtered by description of the institution and only claims specific to universities and colleges were extracted and used for the purpose of this study. The resulting selected dataset for this study represents only twelve claims and less than 1% of all claims received by the state of Ohio in the time frame under consideration.

In order to further research the details of each of the twelve claims identified above, additional public records requests were made to the auditor of state, requesting copies of all work papers and any generated work products, such as findings summaries or reports. These work papers and reports were provided by the Auditor of State for all of claims under review. The actual work papers provided to the researcher consisted of varying

levels of detail and complexity based on the nature of each case and the severity and validity of each claim. Of the work papers for these 12 claims made against institutions of higher education—each made in areas of importance, areas where real concerns exist regarding the potential for an ethical breach—only three of the claims revealed instances of genuine fraud or theft that merited action by the state and the institution involved.

To extend the analysis, these claims have been sorted according to whether work papers and summary findings suggest to a qualified auditor that an extended investigation could potentially uncover a valid "actionable" complaint. Further, if the Auditor of State did indeed investigate a claim and found action warranted, these claims are recorded as "action taken". The differentiation between "actionable" and "action taken" lies in whether or not the institution overlooked the researcher's evaluation that the claims presented an opportunity to improve internal processes. Often this is due to internal resource limitations or policies.

3.2.2 Research Design—Level 2: Actual Claims by Whistleblowers, Multiple States, Multiple Years

3.2.2.1 Massachusetts

Massachusetts is one of the geographically smallest states in the U.S., and with a population of 6.7 million has a disproportionately high number of prestigious institutions of higher education—122, based on the state's Department of Higher Education. This includes Harvard, MIT, Boston College, Brandeis University, Boston University, Williams College, Amherst College, and the University of Massachusetts. Massachusetts institutions of higher education had an enrollment of 665,000 students in 2013. In the same year, according to the US Department of Education's IPEDS database, the state of Massachusetts funded $1.2 billion of the $4.8 billion in total revenue of these institutions.

In early spring 2015, the initial request for data was sent to the Auditor of State's office, who replied promptly and provided an exhaustive database of claims tracked by the auditor's office. This response cited Chapter 647 of the Acts of 1989, which is

Massachusetts' statute on Internal Control and the requirement to maintain records of events.

3.2.2.3 Michigan

The State of Michigan has a population of 9.9 million and 93 institutions of higher education, of which 15 are public four-year and 29 are public two-year colleges with enrollments of 683,000 students in 2013. The US Department of Education's IPEDS database shows that for 2013 the State of Michigan provided $1.6 billion of the $14.8 billion in total revenue of its colleges and universities.

The Michigan Auditor General was sent the same request for information as California, Ohio, and Massachusetts, and the response received was that, at the state level, no solicitation or reporting was performed, and that this was the responsibility of each institution. Michigan exemplifies the decentralized approach to control management and is somewhat at the other end of the spectrum when compared to Ohio and Massachusetts. The Auditor General stated that the boards of each of the respective colleges and universities were responsible for administering their own internal controls.

3.2.2.4 California

The State of California has a population of 38 million, with 789 institutions of higher education, serving 1.8 million students. According to the US Department of Education's IPEDS database, in 2013 California's universities and colleges had enrollments of 3.7 million, and the state funded $8.9 billion of $45 billion in total revenue for that year. This represents over half of all of the value covered by this study and over 14% of the total US spending on higher education.

 The California Auditor of State was sent the request for information and responded with copies of the annual report of accusations of fraud and theft by employees entitled "Investigations of Improper Activities by State Agencies and Employees," which is

produced annually as a report to the Governor and State Legislature and is available online for all citizens to review.

3.2.2.5 Summary of the Expanded Multiple State Level

The design and methodology of the field study was repeated on an expanded sample of states. States were selected in a manner that allowed coverage of prestigious institutions and domains that are significant in higher education. The sequential public records request approach was successful not only in evaluating the state mechanisms but also in testing the unique nature of the personal interaction that each state makes available for such inquiries.

3.2.3 Research Design—Level 3: Comparing Specific Mechanisms of Prevention in Multiple Countries

3.2.3.1 Overview of Methodology

This component of the research could also be classified as a type of content analysis, in which the study of institutional practice is conducted in an unobtrusive manner. (Babbie, 2013, pg. 356) Schmidt and Kiraly (2015) reviewed the websites for a sample of universities in the author's home countries: the United Kingdom, the United States, and Hungary. Institutions selected were geographically convenient and known to the authors, and had the highest level of recognition within their region. This dissertation expands upon this published research by expanding the survey to include a sample of the largest institutions from England in the United Kingdom. The universities analyzed are outlined in Table 9.

Table 9: Universities analyzed in the multi-country comparative portion of this research (Source: Own Work based on Schmidt & Kiraly, 2015)

Universities analyzed by Country	
Country	**University**
US	University of Michigan
	Ohio State University
	UC Berkley
	Univ of Minn
	SUNY
	Florida State University
HU	University of Pecs
	Corvinus University
	University of Szeged
	Budapest University of Technology and Economics
	Eötvös Loránd University
	University of Debrecen
UK	Univ of Oxford
	Univ of St. Andrews
	University of London (Including LSE)
	Imperial College London
	University of Bath
	Durham University

Each of these universities' web sites were reviewed for public access and dissemination of information related to the four steps of learning from whistleblowing complaints: soliciting complaints, managing complaints, resolving complaints, and organizational learning to prevent recurrence and improve prevention. For each of these process steps tests of specific externally observable key control points were developed. Figure 23 shows the four process steps and the eight key control points used in assessing the implementation of control disciplines for the prevention of and identification of fraud. The focus of these controls is to measure and evaluate the availability of information to the public through websites that provide access to these key points specific to the environment of soliciting, administering, and learning from whistleblower claims.

Figure 1. Control points evaluated
Source: Own construction

Soliciting
- Public Facing Strategic Plan
- Whistleblowing as a defined process

Managing
- Internal Controls as a strategic objective
- Public Facing Code of Ethics

Resolving
- Public Solicitation of Fraud Complains
- Public Report of Findings

Learning
- Organizational Learning defined in Strategic Plan
- Public Facing Assessment of Achievements
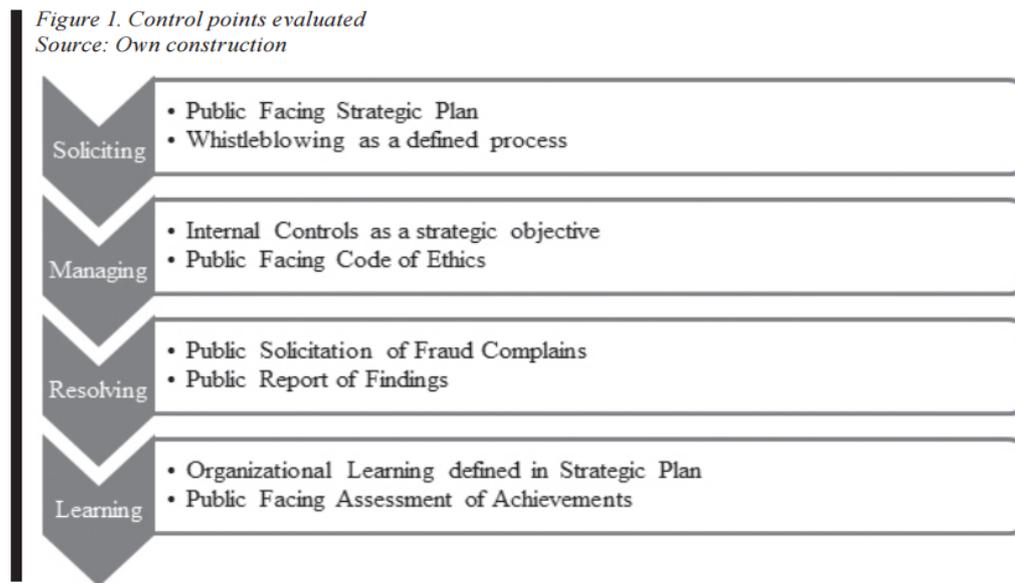
Figure 23: Externally Observable Control Points evaluated for International Comparison (Source: Schmidt & Kiraly, 2015)

3.2.3.2 Public-Facing Strategic Plan

This research started with a review of each institution's publicly disclosed strategic plan information. Where this information was not available at the institutional level, searches were conducted inside key schools or colleges that are component units of the larger institution.

An institution's strategic plan embodies priorities which will be the focus of the institutional energies and efforts. Accrediting bodies such as the Higher Learning Commission in the North Central Region of the United States specifically have made long-range strategic planning a required component of their accreditation criteria, as key evidence that the institution is continually preparing itself for the future (Higher Learning Commission, 2012; Dobrai & Farkas, 2008). A public-facing strategic plan communicates openly to the public what those priorities are, makes them accessible for internal and external partners of the institution, and allows for third-party review. In Hungary the legal regulation does not define the tools and documents of the strategic management in higher

education. There are rules that are related to organizations, activities, titles, and authorities. The higher education institutions regard the Institution Development Plans (IDP) as the most important and compulsory strategic document (IFUA, 2011). In accordance with the Act on National Higher Education (2011), institutional development plans should project at least for four years. Therefore, in Hungary all of the examined universities have an institution development plan (IDP), most of which are publicly available. Regarding traditional strategic plans the picture is much more heterogeneous. Only two of the six analyzed universities have publicly available strategic plans on their websites; this is the reason IDPs are the basis of our examination.

Strategic plans can be implemented at various levels in an organization and different institutions find strategic planning at specific levels to be more effective and tailored to fit the needs and culture and size and scale of the institution. For example, a large university with a large medical school and associated hospitals, clinics, and ancillary facilities may find that a strategic plan specific to the medical school is required, whereas a smaller university will have a single strategic document for the entire institution.

3.2.3.3 Whistleblowing as a Defined Process

Whistleblowing—a key control mechanism which identifies a substantial number of claims, as Lawson (2015) stated, to solicit both internal and external complaints of fraud or theft or misconduct—is the most effective mechanism of identifying large, complex, and well-concealed acts. In the United States, whistleblowing protections are ingrained in state and federal laws, and at the federal level, compliance is managed by the US Department of Labor. Institutions are required to have whistleblower protections in place for a spectrum of issues, which include subjects such as labor rights, workplace health and safety, research integrity, and academic integrity, in addition to fraud, theft, and misconduct.

From January 2014, a new whistleblowing act—Act CLXV of 2013 on Complaints and Whistleblowing—was introduced for employers and for their parent companies in

Hungary. The new law particularly affects the processing of personal data under such procedures and the employers' disclosure obligations. It also incorporates the practice of the Authority for Data Protection and Freedom of Information (NAIH) on whistleblowing hotlines (McKenna et al., 2013).

Because of the variety of situations in which whistleblowing is called for, researchers could not find a single recipe for organizational action to support individual courageous behavior (Harris, 2013). Whistleblowing as a process can be codified in both institutional policies that exists outside of the strategic plan, or included in the strategic plan, where it can be emphasized as a priority and essential component of the institutional culture.

Our research looked at the institutional strategic plans, their institutional website, and their policy documents for the presence of a management reaffirmation of the importance of whistleblowing, as well as a communication of management tone that establishes that open discussions of issues was welcome and essential to the health of the institution.

3.2.3.4 Internal Controls as a Strategic Objective

Strategic plans were reviewed for mention of the topic of internal controls and as part of a management reaffirmation of the importance of the topic. Internal controls consist of an assortment of policies, practices, and communications from institution leadership "tone from the top" about the prevention of the loss or misuse of institutional resources, and consequently the preservation of the institutional image and brand in its community and marketplace. Strategic plans invariably focus on the availability of new resources to find new objectives, often overshadowing the topic of the improvement internal controls and maintaining the culture of prudence, propriety, and efficiency.

3.2.3.5 Public-Facing Codes of Ethics

Codes of ethics in higher education in the United States have historically focused on academic and research integrity, as the American Association of University Professors

adopted their first formal code of ethics in 1966. The higher education code of ethics expanded in scope as an essential component of effective, open, and accountable administration and governance was reinforced in the wake of Enron and other corporate scandals. Driven by financial and accounting functions, codes of ethics became an essential part of higher education as governing bodies adopted the recommendation that member institutions adopt a code of ethics as institutional policy. In the United States, the Council for the Advancement of Standards in Higher Education, which represents 35 member associations and numerous institutional functions, adopted a standard in 2006 (Council for the Advancement of Standards, 2006). Codes of ethics by their very nature exist and vary widely between functions in the university environment. The CAS code of ethics is abstracted to fulfill the needs of the diverse functions of the institution and enshrine the principles of service, honesty, and integrity. The public disclosure and presentation of this code of ethics not only communicates to the public the institutions' commitment, but also serves a secondary function of enabling prosecution of violators of these principles.

The Hungarian case is completely different. There is no legal background of the creation of codes of ethics in higher education, and the Act on National Higher Education (2011) does not determine a framework for the procedure either. Higher education institutions have an authority to decide—in line with legal regulations—whether they formalize the ethical process in their internal regulations and to which degree. However, the Hungarian Academy of Sciences published its first Science Ethics Code in 2010 (MTA, 2010), and the universities use this as a reference (Mezey, 2014), but it does not cover all of the ethical issues a higher education institution faces. Mezey (2014) states that the Hungarian Rectors' Conference would initiate the constitution of a standard code of ethics for Hungarian universities. Currently 16 out of the 27 Hungarian universities deal with ethical issues, regarding both science and education in the form of a public-facing code of ethics. Out of these 16 universities, 14 are state (public) universities and only two are private institutions. Further, four universities have some kind of ethical regulation, and these seem to be partly equivalent with the code of ethics.

3.2.3.6 Public Solicitation of Fraud Complaints

Institutional websites were reviewed for the public solicitation of fraud complaints, as an essential part of the communication and solicitation of whistleblower complaints. The importance and significance of the ability of people to submit anonymous claims about their concerns or suspicions of fraud or theft is a key element in soliciting and organizing such complaints for analysis and investigation (Elliston, 1982; Price, 1998). Solicitation usually encompasses one or more mechanisms for individuals to submit concerns and complaints which would include a phone number, email address, postal address and in some cases an electronic form that may in some cases provide multiple language and translation support.

3.2.3.7 Public Report of Findings

Institutional websites were reviewed for the publication of an annual report or listings of new complaints, findings, and tracking and monitoring of unresolved issues from prior years. This is exemplified by the process followed at the state-level in California, where annual reports are published with statistics on findings, and continuous reporting of status of major findings until remediation and corrective actions are completed. These reports serve as a key communication mechanism of the quality of the entire process evidencing to the public that the process is well controlled and well managed. The reports also present a form of continuous learning for the organization and individuals. Individuals can read the report and familiarize themselves with the types of issues and consequences that have arisen, while organizations demonstrate how they have adapted and continue to adapt to strengthen weaknesses and continue to learn and improve as an organization.

3.2.3.8 Organizational Learning Defined in a Strategic Plan

At this point, I reviewed the strategic plans of the institutions, determining whether they focused on both structural and cultural/behavioral aspects of the organization in their goal-setting and organizational development process.

From a Behavioral Psychology and Organizational Development point of view, organizational learning is the result of organizational inquiry (Argyris & Schön, 1978). According to this theory, organizational learning takes place when the stakeholders of an organization intend to understand why the actual outcome differs from the wished/expected outcome. In order to do this these actors need to interact with each other; this produces new knowledge for the organization (Argyris & Schön, 1978). This process can take place in three different ways (Argyris & Schön, 1996):

- Single-loop learning: reviewing the process, finding the mistakes, and trying to achieve the same goal in a different way.
- Double-loop learning: reviewing the goal, and then finding new ways to achieve it.
- Deutero-learning: learning the lessons from the process of learning (learning how to learn).

A successful and healthy organization has to apply and combine all three ways of learning. Obviously, the challenge for them is the second and third way of learning. To be able to implement those, organizations need to be very conscious about control mechanism and organizational development actions, as in order to implement deutero-learning, both structural and behavioral components must be involved in the change process.

3.2.3.9 Public-Facing Assessment of Achievements

This section tests to see that institution tasks departments to assess their progress towards achieving their strategic plan that is then included in an internal and external review of progress that is publicly presented, publicly facing, and readily available. Specific evidence of progress towards achievement of the goals 1-6 were sought in these assessments. This is often a key element of accreditation reviews, where assessment reports of progress and achievements are made. The public presentation of these assessments is an essential component of transparency and efficient governance.

3.2.3.10 Summary of International Comparative Study Methodology

A basis for comparative analysis of universities and key characteristics was established, and key institutions in each of the three countries under study were selected for review. The basis for the metrics was founded in the literature of internal controls and Internet communication technologies, allowing this research to be relevant as institutions and open governance becomes more prevalent.

3.2.4 Research Design—Level 4: Survey of Individuals and their Perceptions of Learning from Whistleblower Claims

3.2.4.1 Survey and Interview Design Approach

This part of the research project seeks to establish a framework for the completion of a primary data survey of individuals regarding their experiences and perceptions of learning from fraud and whistleblower claims inside of institutions of higher education. The framework is developed in these components: an interview guideline, the development of scaling questions with anchoring vignettes.

3.2.4.2 Interview Guideline

Churchill (1995) in his *6th Edition Marketing Research* textbook defines the interview guideline as a questionnaire and the design thereof is put forth as a 9-step process:

1. Specify what will be sought.
2. Determine the type of questionnaire and method of administration.
3. Determine content of questions.
4. Determine form of response to each question.
5. Determine wording of each question.
6. Determine sequence of questions.
7. Determine physical characteristics of the questionnaire.
8. Reexamine Steps 1-7.

9. Pretest questionnaire and completed necessary revisions.

This process is then followed here to document and facilitate the development of the survey of individual experiences and perceptions of fraud of learning from fraud and whistleblower claims inside of institutions of higher education.

3.2.4.3 The Information Being Sought

In this case, this exploratory research hopes to reveal personal experiences and exposure to whistleblower claims and establish if individuals and institutions are actively communicating with their stakeholders regarding claims that are received, actively training individuals to be aware of the causes of whistleblower claims and help them prevent and avoid such circumstances from arising, and finally, if there are policies and well-defined procedures and operational disciplines surrounding learning from whistleblower claims, in itself a multi-step process.

Additionally, it is of interest to understand some classification data related to each of the respondents' backgrounds, country of origin/geographic location, type of institution they are responding for, and their role within the institution.

3.2.4.4 The Type of Questionnaire and Method of Administration

Google Forms was used as the mechanism for publishing and disseminating the survey. This link (http://goo.gl/forms/zGRz66hgBL) contains the fully operational survey and is contained in the Appendix A. The start date of the survey was offered with no end date anticipated, and was opened from February, 2015 through October, 2017.

Google Forms has clear advantages in its cost (free) and the ability to compile and tabulate results automatically, which eliminates the need for survey assistance typically found in research projects of this scale.

Google Forms does have some limitations at the time this survey was created:

- No ability to select multiple options, which created the need to then include the option "other" for the results.

- No ability to help people identify their geographical location quickly or to capture this information.

An alternative platform to Google Forms that was considered is Lime Survey. Lime Survey had more sophisticated features and the ability to host it on a website, which meant that other types of marketing and solicitation could have been employed to increase the exposure to the survey, such as Google AdWords. The technical complexity of implementing the Lime Survey, with hosting contracts, website configuration, administration, security, and the actual programming of the survey itself, was a task that was insurmountable, and ultimately unnecessary as Google Forms automates all of these technical challenges.

Google Forms provides additional features in the automatic tabulation of results and graphical presentation of data in a manner that greatly accelerates the analysis and discussion of findings.

3.2.4.5 The Method of Determining the Content of Questions

An iterative process was used to determine the scope and content of questions, to ensure that analysis needs were met and that elements were not missing from the results that would require a repetition of the survey or create a gap or weakness in the research.

Initially, seven areas or categories were established to focus the survey question development and ensure completeness of the survey. The categories focused survey questions seeking information about the individual's demographics, their experiences, and details about interactions with their institution, in the following sequence and order:

1. Information about the individual's institution and location.

2. Information about the individuals themselves, including preferences and experiences.

3. Information about the institution's approach to soliciting claims.

4. Information about the institution's approach to administering claims.

5. Information about the institution's approach to learning from claims.

6. Free comment section.

7. Contact information if the individual wanted to receive a copy of the results.

The Google Forms survey was able to create sections or blocks of questions that reflected this categorization. These sections created a cut-off and segregation of concepts as the respondent was walked step through the completion of the questionnaire. In this way the sections and grouping of questions was used to better organize the questions and help the survey respondent focus on specific topics.

In each section, the minimal set of questions were developed to allow the respondent to move quickly through the survey while ensuring coverage of the necessary research topics. These fundamental checks from Churchill were performed to ensure unnecessary questions were eliminated:

1. Is the question necessary?

2. Are several questions needed instead of one?

3. Do the respondents have the necessary information?

4. Will respondents give the information?

The final survey questions are contained in Appendix A.

3.2.4.6 The Method of Determining the Form of Response to Each Question

Several forms of questions were employed in the survey. Open-ended questions and free-text answer areas were provided to allow the respondent to explore and contribute specific examples or experiences they may have had. Multichotomous questions were the main

form of question employed given the ease of establishing these forms of responses in the Google Forms technology. Dichotomous (yes/no) questions were employed throughout the survey. As a result of the early survey testing, it became clear that an alternative for "don't know/am not aware" was needed in order to allow people to respond honestly to their awareness level and exposure to the subject matter being researched.

In addition to the form of the question, the Google Forms technology allows survey questions to be defined as "required" in order to ensure that a response is received on specific questions. This technique was employed on all critical questions that were fundamental to the analysis of primary results.

Physical characteristics of the survey required to be defined up front were the color scheme of the survey and any associated background images or graphics. The choice was made to go with blue for the perception of blue sky, and creativity and openness of perspective, hoping to entice free, uninhibited responses. Other physical choices were layout of the responses as horizontal or vertical answer sets, grouped answers, or individual responses. Ultimately it was decided to use separate answers for each question, avoiding the complexity of grid like question batteries.

3.2.4.7 The Method of Determining Wording of Each Question

The choice of wording and the required comprehension level of each question was tailored towards the rhetoric and semantics widely used inside institutions of higher education inside the United States. This became apparent as well during the pre-distribution test period where some of the feedback received had criticized the US focus in what was intended to be an international survey. This resulted in the modification of several key terms and response categories to facilitate the applicability of the survey to different countries. Specifically the terms and titles used for the roles of individuals inside of their institutions was one area that required elaboration and refinement. Secondly, the types of

institutions themselves are often called by different names in the different tiers of higher education within a country, where trade school or college may be interpreted differently that what is called a two-year degree institution versus a four-year university, which is often interchanged freely with the term "college."

Specific pitfalls were avoided during the development of the survey:

- Leading questions, which would provide a "clue" to the respondent as to the desired response.
- Implicit alternatives, a hidden alternative, or an alternative not given explicitly to the respondent.
- Generalizations or estimates, where the respondent would be asked to guess a response statistic.
- Double-barreled questions, where two responses are required.

3.2.4.8 The Method of Determining Sequence of Questions

Simple questions were placed at the beginning of the survey, asking for information about the respondent themselves was used to warm the completer to the topic and the format of the Google Forms survey. A funnel approach combined with the outlined seven categories of necessary data was used to guide the respondent through all of the necessary steps.

Several branch questions were developed to facilitate the exploration of actual experiences with fraud or whistleblower complaints, which were nonessential to the main message of the dissertation research but would improve the power of the analysis by allowing a more detailed understanding of the types of cases individuals actually encounter in the real world. These questions occurred later in the survey and were not required for the user to complete.

3.2.4.9 Pre-Testing and Piloting

The survey was designed and revised over the course of two months with numerous revisions to word choice, question choice and formatting. The principal driver of this was also the completion of simulated responses in order to ensure that all dimensions of the final analysis were covered in the results. This simulation is included in Appendix B. Appendix C contains a summary of the live survey results as of May 9, 2016.

Three types of error were considered in the simulation:

1. Coverage error. This refers to the population of people overlooked by or who did not participate in the survey, and it is discussed below under both the geographical question section as well as the personal information section where coverage error by role, where responses by presidents, trustees, and state level. Additionally, coverage error will also occur among the types of institutions the respondents represent.
2. Non-response error. This type of error is assessed in each of the responses and used in the evaluation of the results to ensure that the analysis is accurate and rigorous in the disclosure.
3. Response errors. These can occur in both the respondent's failure to comprehend a question's intended meaning and a respondent's inability to accurately respond due to failure to recall or inability to formulate a correct response.

Pre-survey checking was done by reviewing each question for the possibility of misinterpretation and the accuracy of question wording and results coverage.

A select group of eight individuals was used to complete the survey and then participate in a post-survey interview to identify if specific questions presented challenges for interpretation and that answer options were comprehensive and not leading or misleading to the survey respondent.

One key point that was returned from the survey pilot was that simple yes/no answers to many questions were insufficient because the respondents were unable to answer the question. This resulted in the addition of the answer "don't know," which complicated the analysis of the results.

A second critical point was related to the international aspect of the survey and the desire to obtain results from other countries, which may have different terminology for the various institution types and the roles within the institutions. This discussion resulted in the addition of additional terms used in the description of the role and institution.

3.2.4.10 Overview of Vignettes

These examples "vignettes" of key potential outcomes illustrate the possible diverse responses and exemplify the anticipated variation in experiences individuals experience throughout the higher education service chain. They are listed in Table 10.

Each of these vignettes was run through the pre-test survey to ensure that these types of responses were captured correctly in the final survey results. King et al. (2004) used anchoring vignettes to overcome Differential Item Functioning (DIF) bias to improve the quantitative analysis of survey findings.

The intention for the dissertation results is to pull examples of survey results into a narrative similar to that used by Flint, Woodruff, & Gardial in their 2002 paper focusing on customers' desired value change in a business-to-business context. The following example comes from a real first-person response to the survey defined here:

> *A Chief Fiscal Officer at a Two-Year Community College in the United States with enrollment of 3,400 students has responsibility for facilities, security, construction, budgeting, fundraising, and auxiliary services such as the bookstore and food service. This person states that she spent five years working to address a whistleblower claim against a popular administrator who had been fraudulently*

redirecting services from the College to his private enterprise. The pursuit of the claim was politically painful; all parties wanted a hasty resolution and no public discussion. The resolution of the issue spanned two presidents at the college and neither supported the pursuit or prosecution of the perpetrator. Ultimately local media became aware of the issue and facilitated the proper resolution of the issue. This college has had no ability to track such claims, no policies, and a political climate that suppresses claims when they arise. (Schmidt, personal communication July 21, 2016)

Table 10: Vignettes and characteristics (Source: Own Work)

Vignette Name	Characteristic
University Administrator, Flagship University, US	Best resources, but still with gaps in processes. These universities have substantial resources and extensive staffing with access to premier advisors. However, they have focused on compliance and not on the processes necessary to actually reduce the likelihood of wrongdoings.
State Administrator, Best Practices, US	Best resources, but still with gaps in processes At the state level, administrators have access to the highest level of funding and resources, but have limited staffing and a mandate that is limited by legislative boundaries.
Two-Year College Administrator, No Practices, US	Not prepared or able to explore these topics Extremely limited resources, unable to meet basic operational needs at a high level of proficiency and expertise, but extremely efficient, and believe themselves immune to such complex issues.
Faculty, any institution, any country	Unaware of the topic Focused on issues of academic integrity with very little access to institutional funds, but familiar with occasional incidents of misconduct or other wrongdoings, which they handle casually instead of formally.
European Administrator, University	Good resources, but still with gaps in processes These universities have substantial resources and extensive staffing with access to premier advisors. However, they have focused on compliance and not on the processes necessary to actually reduce the likelihood of wrongdoings.
2nd, 3rd World Administrator, University or College	Not prepared or able to explore these topics Extremely limited resources, unable to meet basic operational needs at a high level of proficiency and expertise, but extremely efficient, and believe themselves immune to such complex issues.

3.2.4.11 Distribution of the Survey and Targeted Audience

Distribution of the survey, although in appearance a simple task of forwarding an electronic link to the universe of individuals involved in higher education around the world, proved to be much more difficult than initially promised by the advent of social networking and technology.

Initially, 20-30 persons within the Ohio education network were contacted and asked to complete the survey and forward it to their colleagues. Additionally, in the U.S., national associations that focus financial management, trustee groups, and auditor groups listed throughout this dissertation were approached and asked to complete the survey. Finally, subject discussion groups on the employment-oriented social networking sevice LinkedIn with thousands of members specific to each of the subject matter groups of Fiscal Officers, Auditors, and Trustees received messages and postings requesting participation in the survey. In total, in excess of 4,000 individuals received some form of notification of the survey. An example follows in figure 24.
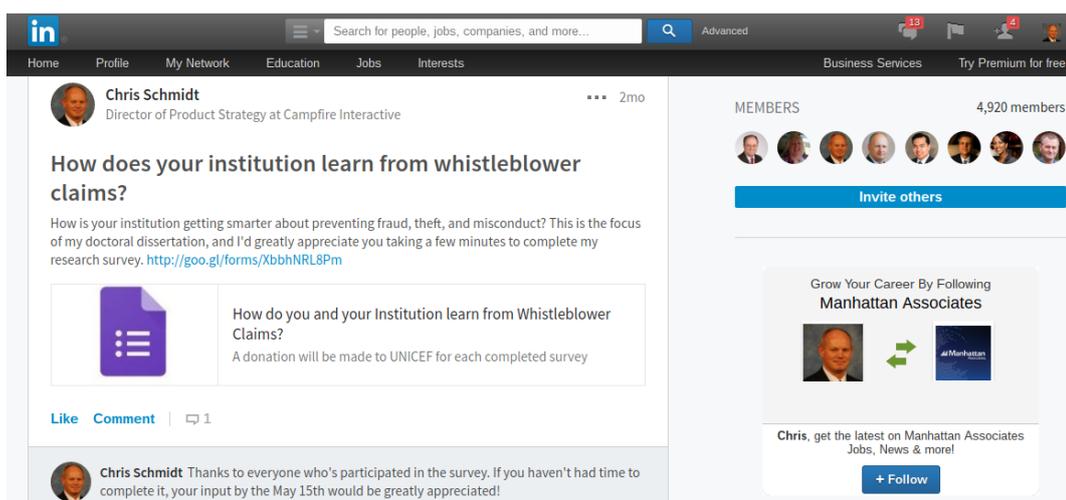
Figure 24: Example of social media invitations to participate in survey (Source: LinkedIn)

This non-random sample of financial and administrative and trustees and faculty was directed through large professional organizations within the United States, through platforms such as ResearchGate and academia.edu, which have international exposure, and through a network of associates related to the University of Pecs.

3.2.4.12 Response Rate and Incentives to Complete

It became apparent during the trial phase that response rates may become a problem and methods of improving response rate were investigated. These methods include 1) shortening the survey, 2) making more interesting questions appear earlier in the sequence of the survey, and 3) the use of a chance-to-win incentive via Amazon.com and/or for the first 1,000 respondents, a donation to UNICEF to be made upon completion of the survey. Because the Amazon chance-to-win was not available globally, the decision was made to donate only to UNICEF.

3.2.4.13 Summary of Survey Design

Several key resources were employed to guide a methodological approach to creating an interview questionnaire survey and ensure the rigor and completeness of the coverage of questions and to ensure the survey's ability to fulfill completely the necessary data points required for this exploratory research project. Vignettes were created to verify the completeness of the survey design in a variety of specific cases.

3.2.4.14 Survey Analysis Methodology

Two of the survey questions were of critical interest and were modelled for analysis and dissection to understand moderating effects and differences between country, institution type, and role inside of an institution. One question, regarding the outcome of "Experienced Wrongdoing" is a Binary (yes/no) two-state outcome requiring a binomial model. The second question, "Getting Smarter" is a scale type outcome (1-5) requiring an ordinal regression. Both models were developed using the following 5 step methodology:

1)   Key questions selected for model input
2)   Data cleaning and verification
3)   Automated Model Selection in R
4)   Verification of R Model and Diagnostics
5)   Potential follow-up or iterations and enhanced processes

Each of these steps is documented in the data results and analysis for each question.

Key question selection for model input

The survey dataset consisted of 36 questions. In order to dissect the responses and condense down key factors, eliminating free text responses, resulted in the following list of responses used as the dataset. The data, shown in Table 11, was categorized by breaking up categorical responses into binary yes or no factors. These simplify the analysis of the model.

Table 11: Question Selection and Coding for Statistical Analysis (Source: Own Work)

Question	Simulation Label	Categories
1.1 Type of Institution	University	1=University,0=2year college
1.2 Country	US	1= US, 0= Hungary
1.5 Code of Ethics?	EthicsCode	
2.1 Role at Institution?	Pres SeniorLeader Faculty Student	1 = President; 0= Other 1 = Senior Leader; 0=Other 1 = Faculty; 0=Other 1 = Student;0=Other
2.2 Received Training?	HadTraining	1 = Yes; 0 = No, Don't Know
2.6 Was Incident Reported?	MadeReport	1 = Reported Incident; 0 = Didn't
2.8 Is the process Important?	HowImportantProcess	1 - 5
2.4 Experienced Wrongdoing	ExperienceWrong	1 = Experienced; 0 = Didn't
2.9 Is the institution getting smarter?	Getting.Smarter	1 - 5

Data cleaning and verification

Data was recoded to facilitate statistical analysis. In no cases was data was missing. The recoded data was verified as matching the source records by using checksum validation of the total coded data vs. the original response data.

Automated Model Selection in R

The simulation tool chosen for this analysis was the open source and freely distributed statistical and computational software called R. Calcagno & de Mazancourt (2010) created the "glmulti" R library for automated model selection. This tool allowed for an automated iterative creation of all possible combinations of input independent variables and also the second order combination of effects "mixed effects" within all variables. The library employs a genetic algorithm to optimize the combination search and thereby eliminates the unnecessary calculation of outlier and non-functional models. This model and approach has been used widely, with over 300 citations and as Viechtbauer(2010) asserts, has been used in thousands of scientific research projects since 2010. This rigorous and verified approach to model selection facilitates the exploratory discovery of the significance of different computationally derived theoretical models. The actual regression is performed by the module general linear model "glm" in R (R Development Core Team, 2009). The corrected Aike Information Criteria (AICc) is used to score models and rank and sort the model results. Importantly the AICc criteria applies for mixed-effects models. Viechtbauer (2010) created a number of functions in the R library "metafor" for the analysis of linear models generated in R and these tools were used to provide a best-fit, optimized model of the drivers of the two relationships of interest.

Model verification and Diagnostics

Diagnostics were performed first at the model level and then secondarily for the group of the top models to identify average significance between models, and allow for possible rationalization of models vs. intuitive explanations of outcomes. Standard error, t-value,

and P(t) were calculated for each parameter including the estimating of the significance levels, with more stars being most significant. In some cases the model parameters did not contribute and so are returned as NA.

The low number of Fisher Scoring iterations (2) indicates that the solution was stable, with the default method used by the glm algorithm being the Newton-Rapson method. The deviance criteria are defined shown in Table 12.

Table 12: Deviation Criteria for Model Validation (Source: Own Work)

Deviation Criteria Definition
Null Deviance = 2(LogLikelihood(Best Model) - LogLikelihood(Null Model))
Residual Deviance = 2(LogLikelihood(Model Model) - LogLikelihood(Proposed Model))

Low values of Null Deviance implies that the Null Model (constant term) explains the data well. Likewise with your Residual Deviance. Therefore for the condition of Residual deviance < Null Deviance the test confirms that the multifactor model is a better model of the data than simply the constant term.

For the sake of reproducing the simulation results, the code used to calculate the statistical model and analysis is presented in Table 13.

Table 13: Statistical Analysis Program - R Script (Source: Own Work)

Statistical Analysis Program - R Script

```
### statistical analysis of phd survey
## Chris Schmidt
## PHD research
## 11-14-2017
## try glmulti
##

#clean workspace
rm(list = ls())
ls()
```

```
## load libraries
library(glmulti)

#####  read in some data
data1 <- read.csv("data1a.csv", header= TRUE)

#### Look at the data
data1

df = data.frame(data1)

#### Look at the data

xtabs(~HadTraining + ExperienceWrong, data = data1)

xtabs(~ExperienceWrong + University + EthicsCode, data = data1)

xtabs(~Getting.Smarter + University + HadTraining + ExperienceWrong, data = data1)

###### make a model

## University
## EthicsCode
## US
## Pres
## SeniorLeader
## Faculty
## Student
## HadTraining
## ExperienceWrong
## MadeReport
## HowImportantProcess
## Getting.Smarter
###  create anova


## Model 1 - ExperiencedWrong
##output <- glmulti("ExperienceWrong", c("University", "EthicsCode", "HadTraining",
"SeniorLeader","Faculty","Student"), data = df, family = binomial, method = "g", maxit = 30)
output <- glmulti("ExperienceWrong", c("University","US", "EthicsCode", "HadTraining",
"SeniorLeader","Faculty","Student"), data = df, method = "g", maxit = 30)

print(output)
plot(output)

tmp <- weightable(output)
tmp <- tmp[tmp$aicc <= min(tmp$aicc) + 2,]
tmp

summary(output@objects[[1]])
```

```
plot(output, type="s")

## Model 2 - Getting Smarter
output2 <- glmulti("Getting.Smarter", c("University","US", "EthicsCode", "HadTraining",
"SeniorLeader","Faculty","Student","ExperienceWrong"), data = df, method = "g", maxit = 30)

print(output2)
plot(output2)

tmp <- weightable(output2)
tmp <- tmp[tmp$aicc <= min(tmp$aicc) + 2,]
tmp

summary(output2@objects[[1]])

plot(output2, type="s")

##save(object list,file="crsphd.Rresults")
```

Data for Simulation

For the sake of reproducing the simulation results, the data used to calculate the statistical model is presented here. Total Sample Size N=19, independent variables 10, dependent variables 2 shown in Table 14.

Table 14: Data Table for Statistical Analysis (Source: Own Work)

No.	University	US	EthicsCode	Pres	SeniorLeader	Faculty	Student	HadTraining	ExperienceWrong	MadeReport	HowImportantProcess	Getting Smarter
1	0	1	1	0	1	0	0	1	1	1	5	4
2	0	1	0	0	1	0	0	1	1	1	4	4
3	1	0	0	0	0	0	1	0	1	0	4	2
4	1	0	1	0	0	1	0	0	0	0	3	3
5	0	1	0	0	1	0	0	1	1	1	4	4
6	1	0	1	0	0	1	0	0	1	1	4	3
7	1	1	1	1	1	0	0	0	0	0	5	3
8	1	0	0	0	0	0	1	0	1	1	1	1
9	1	0	0	0	0	0	1	0	0	0	5	3
10	1	0	1	0	1	0	0	1	0	0	5	5
11	1	0	0	0	0	1	0	0	0	0	3	3
12	0	1	0	0	1	0	0	0	1	0	4	5
13	0	1	1	0	1	0	0	0	1	0	5	4
14	1	1	0	0	0	1	0	1	0	0	4	3
15	1	1	0	0	0	1	0	0	0	0	4	3
16	0	1	0	0	0	1	0	1	0	0	4	3
17	0	1	1	0	0	1	0	1	1	1	4	4
18	0	1	1	0	1	0	0	1	1	1	5	3
19	1	1	1	0	0	0	1	0	0	1	5	3

3.3 Researcher Bias

Major sources of bias in research fall into three categories: design flaws, implementation flaws, and analysis or publication flaws. Design flaws were addressed by both a thorough review of the existing literature, focusing only on stated gaps in the research, and the use of field tests and survey trials to ensure that designs were valid. Implementation in steps, the use of mixed methods, and the validation of the research topic through multiple approaches, at multiple levels of operations, and in multiple legal and national jurisdictions, provided the opportunity to highlight and correct and revise any issues that would have arisen with regards to implementation flaws. Publication flaws as a result of mistaken analysis or incorrect presentation of the results was addressed not only through peer review and the disciplines of the doctoral dissertation review process, but also through the approach of having published in peer-reviewed scientific journals, the major components of this dissertation before final submission.

3.4 Summary of Research Methodology

A mixed method approach was employed to bake this four-layered cake that makes up the multi-faceted, multi-level analysis of the processes used by recipients of whistleblower complaints inside the complex administration of higher education.

A sequential public records request approach to obtaining information was implemented to evaluate if data was available for analysis, the type of data regarding public complaints against institutions of higher education. Data was analyzed and reviewed and allowed categorization of the types of claims in line with research outside of higher education.

The design and methodology of the original field study was repeated on an expanded sample of states. States were selected in a manner that allowed coverage of prestigious institutions and domains that are significant in higher education. The sequential public record request approach was successful in evaluating not only the state mechanisms but

also testing the unique nature of the personal interaction that each state makes available for such inquiries.

A basis for comparative analysis of universities and key characteristics was established and key institutions in each of the three countries under study were selected for review. The basis for the metrics was founded in the literature of internal controls and Internet communication technologies, allowing this research to be relevant as institutions and open governance becomes more prevalent.

Several key resources were employed to guide a methodological approach to creating an interview questionnaire survey and ensure the rigor and completeness of the coverage of questions and to ensure the survey's ability to fulfill completely the necessary data points required for this exploratory research project.

By employing mixed methods approach to baking and sequential testing at various phases, including the release of findings through peer-reviewed journals and conferences, efforts were taken to ensure that the traditional flaws and errors that can occur through researcher bias and errors were avoided altogether.

Chapter 4—Research Findings

4.1 Overview

The findings and data compiled through this research are presented and discussed in detail in the following sections of this chapter.   Insights and learnings that are of value to the institution and its stakeholders are identified, as are commonalities and contrast points between each level of the research.

4.1.1 Hazards to avoid in the Assessment of Findings

Lieberson (1991) defines three categories of hazards related to the assessment of analyzing small sample comparisons and extrapolating big conclusions. Further, Landman (2008) identifies three areas of assessment that can lead to misinterpretation or poor findings. Landman specifically uses the case of Michael Porter who looked at the causal effects of the economic success of specific Asian countries called "Tigers", and included only countries that supported his conclusions, with no counter examples in his 1980 study, which in Landman's opinion, led to global policy errors. These categories and a strategy applied in the finding assessment are presented here to facilitate the accurate assessment of the findings. Lor (2012) cites Hantras and further classifies the extrapolation errors into two categories: Ecological Fallacy: inferring downward to sub-entities or sub-units and Individualistic Fallacy: inferring upward to aggregate entities or units, based on the findings of the individual or specific unit. An example of the Ecological Fallacy would be to find that at the national level, that a process is missing or non-functional, and then to conclude that it was missing also from the state and institutional level. An example of the individualistic fallacy would be concluding that because individuals are not aware of wrongdoings, therefore neither is the institution, state, or nation.

These hazards will be considered with thoughtful evaluation of conclusions drawn from the findings with particular care with regards to extrapolations and generalizations that cross levels of analysis.

Table 15: Hazards in the Assessment of Findings (Source: Own Work, based on Lieberson, 1991; Landman, 2008; Lor, 2017)

Hazards of Finding Assessment	
Hazard	**Mitigation Strategy Applied**
Probabilistic vs. Deterministic (Lieberson, 1991) if X then likelihood of Y vs. if X; then Y	Care is to be taken interpreting Deterministic Analyses, where small samples (N) prohibits Probabilistic Analysis
Interaction Effects (Lieberson, 1991) a combination of effects causes an outcome, as opposed to a single causal factor	Care is to be taken interpreting causal affects, analyzing also the possibility of combined factoral affects
Measurement Errors (Lieberson, 1991) Impact of measurement errors on the conclusions	An evaluation of the consequences of measurement error is included in the outcome
False Dichotomy (Landman, 2008, pg. 65) improperly identifying cause and effects	Care is to be taken to ensure proper identification of causality
Extrapolation Errors (Landman, 2008, pg. 63) factors or circumstances in a level or unit are extrapolated upward (Individualistic Fallacy; Lor, 2017) or downward or geographically (Ecological Fallacy; Lor, 2017)	Care is to be taken to clearly identify the level and units of measurement that generate a finding, and substantial reasoning behind any extrapolations
Sample Error (Landman, 2008, pg. 62) Sample of countries or cases only supports finding, no contrary or control samples	Care was taken to include samples with a wide variation in approaches.

4.2 Level 1 Findings: Categorization and Analysis of Actual Whistleblower Claims

4.2.1 State of Ohio Claims Data

This study analyzes whistleblower complaints against the 22 universities and branch campuses and 23 two-year colleges that make up the public institutions of higher education in the state of Ohio.

The data comprises fraud ethics claims logged by the Ohio Auditor of State, and the study spans 28 months, starting in May 2012 and ending September 2014. Data was provided by the Ohio Auditor of State's open government unit, and the data is available online at https://ohioauditor.gov/fraud/ . A summary of Ohio fraud complaints appears in Table 16,

which provides an overview of the type and status of the 1,386 claims made to the Ohio Auditor of State during the period under study. Twelve claims, or approximately 1% of all fraud claims made during the period, were filed against public institutions of higher education. Complaints are always assumed to be unsubstantiated until evidence is found to support the claim. The Ohio Auditor of State's work papers and findings document their efforts to investigate these claims and record their findings via summary track sheets that this researcher analyzed to interpret the nature of the claims and to determine which actions, if any, were taken by the state or institution.

Table 16: Summary of all Fraud Complaints (Source: Own Work)

Summary of Fraud Complaints to Ohio Auditor of State Claims between May 2012 and Sept 2014			
Status	**State College or University**	**All Claims made All State Bodies**	**% of all Claims**
Closed	9	305	0.6%
Closed - Unfounded		6	0.0%
Corruption		1	0.0%
Ethics	1	3	0.1%
In Progress		55	0.0%
Internal Controls	2	26	0.2%
Referred		815	0.0%
Theft		12	0.0%
No Status Reported		163	0.0%
Grand Total	**12**	**1,386**	**0.9%**

Although all 12 claims were made, all in areas where real concerns exist regarding the potential for an ethical breach, only three of the claims revealed instances of genuine fraud or theft that merited action by the State and the institution involved. In sum, 25% of the claims pursued against institutions of higher education resulted in a recovery action, where the state or institution pursued criminal charges, repayment, and restitution. As a percentage of all complaints received against all state institutions, the rate of substantiated and enforced claims is much lower, 0.0225%. However, the low rate does not reflect the true significance of these claims, as some incidents are far more severe than others. Further, the rate does not reflect the damage to public confidence, institutional and personal reputations, and loss of community goodwill that such events can trigger. In fact, "reputational risk" was identified as a common top priority when Proviti interviewed heads of internal audit at five elite institutions (Proviti, 2008).

Table 17 shows a categorization of the 12, grouped by the processes and functions that exist inside the institution. Mapping the claims to the process or function allows for internal improvement through a review of the specific process and the controls that exist at each institution to prevent a potential or actual claim. Mapping to specific responsibility areas facilitates the internal review that should be conducted to determine if strengthening of controls is required.

Table 17: Complaints against higher education (Source: Own Work)

Internal Process	Responsibility Area	Number of Complaints	Percent of all Higher Ed complaints
Human Resources – Hiring and Compensation	HR	4	33.0%
Theft or Misappropriation of Institutional Assets	Fiscal	4	33.0%
Theft or Misappropriation of Student Funds	Student Affairs	3	25.0%
Unethical or Fraudulent Institution	Board, President	1	9.0%
Total All Claims		**12**	**100.0%**

To extend the analysis, these claims have been sorted according to whether each claim's work papers and summary findings suggest to a qualified auditor that an extended investigation could potentially uncover a valid complaint. Table 18 summarizes these "actionable complaints" that internal process they fall within. Further, if the Auditor of State did indeed investigate a claim and found action warranted, these claims are recorded as "action taken".

Table 18: Summary of complaints and conclusions (Source: Own Work)

Internal Process	Number of Complaints	Number of Actionable Complaints	Action Taken	Action Not Taken
Human Resources – Hiring and Compensation	4	2	1	1
Theft or Misappropriation of Institutional Assets	4	2	2	0
Theft or Misappropriation of Student Funds	3	0	0	0
Unethical or Fraudulent Institution	1	0	0	0
Total All Claims	**12**	**4**	**3**	**1**

The difference between "actionable" and "action taken" lies in whether or not the institution overlooked the researcher's evaluation that the claims presented an opportunity to improve internal processes. Often this is due to internal resource limitations or policies. In the cases analyzed here, the Auditor of State was focusing solely on the traditional topics of the classical scope of vouching and validating the accuracy of financial statements, and of identifying fraud and theft. These traditional topics have been expanded upon in industry, where dedicated institutional internal audit resources exist, and as the demands on organizations to do more with fewer resources has caused auditors to develop a new set of skills. This has resulted in a new area of focus centered on efficiency and effectiveness of operations (Coupland, 1993). In 2010, one survey of 134 of Forbes 1000 top companies,

addressed to the head of the internal audit function, found that 40% of internal audit resources were dedicated to internal consulting projects (Abbott, Parker, & Peters, 2010). This is evidence that the role of the internal audit function has expanded beyond traditional roles, and into new, value-added activities.

Next, the auditor's reports were used to sort the claims by their related organizational areas and the processes; these are summarized in Table 19.

Table 19: Nature of claims from audit work papers (Source: Own Work)

Date Received	Institution	Nature of Complaint	Recovery or Prosecution Action Taken
16-Jan-13	University of Toledo	hiring practices	No
12-May-14	The Ohio State University	hiring practices	No
29-Jan-14	Marion County, Marion Technical College	tuition complaint (non-attendance)	No
7-Oct-13	Stark County, Stark State College	teaching credentials ("diploma mill Dr.")	Organizational
29-Nov-12	Central State University	institutional misappropriation of funds	No
7-Nov-13	Youngstown State University	athletic program spending	No
12-Dec-13	University of Akron	embezzlement of student aid	Legal and Organizational
4-Apr-13	Cleveland State University & University of Akron (Transfer of student between schools)	embezzlement of student aid	No
15-May-12	Wright State University	gift card fraud	Legal and Organizational
24-May-12	University of Akron	labor fraud	No
7-May-13	Ohio University	construction fraud	Organizational
15-Aug-13	State of Ohio, Tiffin University	closure of unaccredited program	No

Upon completion of the review of the complaint log, the items listed in table 19 were the basis for the sequential public record requests for further details to better understand the process of understanding and learning from the claims.

4.2.2 Discussion of Claims: Details from the Auditor's Reports and Work Papers

A discussion of the nature of each of the fraud activities is presented below in order to compare and contrast the possible outcomes for these claims, remembering that complaints are always assumed to be unsubstantiated until evidence is found to support the claim.

4.2.2.1 Complaints Related to Human Resources Issues: Hiring and Pay Practices

Four of the 12 claims figured complaints that were related to human resources practices. Allegations of preferences and discrimination in hiring characterized two of the complaints. Employment and hiring practices—selecting talent—are perhaps the most important process in an organization (Vaishnavi, 2014). If non-competitive selection is made whereby friends, family, or criteria other than performance and ability are chosen, the organization may suffer, as Sciascia & Mazzola (2008) found in the case of family-owned businesses and generational family leadership and as Gould & Amaro-Reyes (1983) found in a global World Bank study. This was also observed in the comparative international study of human resource management conducted by Karoliny, Farkas, & Poór (2009).

In the complaint against the University of Toledo, the complainant states that two employees cooperated in selecting new hires using non-competitive means. This is case Tracker ID 2570 with the Auditor of State filing system for investigation work papers. The complaint was filed on behalf of the wife of the reporter, who felt his wife had been overlooked in a hiring decision, where less senior students had been selected for the position that the reporter's wife desired. Additionally, the complaint included details about the response of the University staff who was informed of the concern and the complaint states the University employee reacted inappropriately by making either literal or casual

references to a whistleblower losing their job over filing a complaint. There is no press or internet coverage available about this complaint, which seems to have been handled by the institution or dropped by the complainant. The auditor of state categorized the complaint as not meeting the criteria of their mandate: not fraud or theft related; and that the claim was purely a management issue and was referred to the University.

 Similarly, the complaint against The Ohio State University states that a senior administrative executive unduly influenced the selection of an individual for an open position as a student intern. The auditor's case summary states, "Complainant reports favoritism of employment to non OSU student for college internship. The … department has been forced to take on a college intern." This case designation contained on the work papers provided this researcher was 2014-CA08875. This complaint was categorized as a potential ethics violation and the case was closed within two weeks. No clear record of the state's follow-up or the referral to the university was noted on the work paper provided. The claim accused Ms. Kris Devine, the then VP of Business and Finance Operations of improper hiring practices. No press or media coverage of the complaint can be found on the internet, indicating that the issue was resolved internally or dropped by the complainant.

These complaints were made by individuals who were upset about not winning a competitive selection process, and who *perceived* that some other criteria had been applied in the selection process. In this case, the Auditor of State correctly decided that these complaints were claims against management ethics; they made no claim of fraud or theft and therefore were *management issues.* Here is an example of a claim that creates an opportunity, and perhaps even an obligation, for the institution's leadership to review its internal processes for improvement opportunities. In such hiring situations, the question has to be answered if management and the institution have consistently employed tools and methods that are available to help the organization substantiate their decision-making process, such as rubrics, checklists, or scoring tables, during the actual interview process.

In the complaints made against Stark State College, employees of the college suspected that their colleague had obtained both master's and doctoral-level degrees from an unaccredited institution, and provided examples of news articles where other instructors or professors who had received degrees from the same institution had publicly rescinded their positions and titles. Additionally, the employees provided some evidence supporting their claim, as well as evidence that the individual was aware of the issue and had enrolled in an accredited institution to complete a legitimate master's degree. This claim, if valid, would be a case of presenting fraudulent credentials to obtain employment from the state. The complaint Number CO-13-76-040 was initially filed on October 7, 2013, and then resubmitted for follow-up in 2014. The complainant provided a number of internet articles regarding the California Coast University which was a well-publicized unaccredited diploma mill. The term diploma mill refers to an institution which grants credentials which were unearned or did not meet the criteria commensurate with traditional and approved courses of study. The employee, Bryan Gerber, had been using the title in spite of receiving both his Masters and Doctorate from this diploma mill. As of 2017, the institution had still employed the Doctor and he was employed in coordinating programs taught at a level below the Baccalaureate. In this case the matter was forwarded to the Ohio Board of Regents, the agency responsible for monitoring and funding higher education in the state. The Ohio Board of Regents is the governing body for the funding of higher education in the state of Ohio and also the credentialing of universities and colleges. The Ohio Board of Regents was informed of this impropriety and responded to the Auditor of State with the response that they have no legal mandate to enforce or take action, other than to notify the institution of the issue. This response included a summary of a response from the college itself stating that they were working with the employee to resolve the issue. An additional important control that exists for the effectiveness of the administration of higher education institutions is the role that external accrediting bodies serve. At the center of this complaint is a common issue for institutions and employers of the correct and thorough credential review process for each faculty member or employee and regular reviews of the manner with which institutions both hire faculty and validate that their qualifications are real and valid.

The last claim relating to human resource issues originated from the University of Akron, where charges were made against a specific employee for having received large payments for overtime, or work that was performed after the hours of the base employment contract. The claim number and work papers originated in 2012 and the complainant had refiled their complaint in 2014. The complaint number is AOS-2012-1468. The anonymous complaint did not assert that the overtime constituted fraud or theft, but simply complained about the fact that the individual received what were perceived to be large sums of excess payments. The Auditor of State closed the case on the basis that no claim of impropriety was made in the complaint, and that no means was available to the auditor to contact the complainant to learn more about the concern. No news or press coverage of this incident was found. This example specifically highlights the opportunity and/or obligation for institutional management to review and research the level of overtime that this individual, or the department or institution, was paying to employees for excess work, if that excess work was properly approved in all cases, and if it may have been avoided through better planning, scheduling, or management. Technology such as management dashboards exist to help management monitor and control metrics such as payroll variations, and can be an integral tool for strengthening both controls and management effectiveness, as outlined in Schmidt (2005).

4.2.2.2 Complaints Related to Theft or Misappropriation of Institutional Assets

Four of the 12 claims figured accusations of theft or misappropriation of institutional assets. Each of these claims is reviewed below in detail, and insight into the validity of the claim and the extent of action taken is summarized.

In the case of Central State University, an institution with a history of financial problems and mismanagement (Fisher, 2007), employees claimed that their pension contributions had been improperly handled by a new chief fiscal officer, who had had a history of employing controversial methods in previous institutions. Again an issue reported originally in 2012, Tracker ID 2518, the Auditor of State performed a review of the accusations and found no wrongdoing, but also did not provide any explanation of the

misinterpretation by the employees. A review of the audited financial statements for 2013 showed no discrepancies found by the institution's external auditor. This claim reflects a common issue that occurs frequently in the US when employers of all sizes, both public and private, encounter a cash crisis and believe that one of their options to manage cash outflows is to withhold or delay tax payments for employee benefits, workers compensation, and retirement benefits. The complaint was made against Darrell Burnette, the newly hired Vice President for Finance and Administration. The complainant included history and articles where the accused had been involved in the inappropriate handling and loss of several million dollars in funds from a prior institution: Grambling State University. This is a matter of sufficient concern that institutional leadership should conduct a review to ensure the completeness and accuracy of all payments. No further press or media coverage of this issue was available, indicating the issue was resolved or unfounded.

In the case of Wright State University, an accusation was made that employees had purchased and then misappropriated incentive "gift cards" that were to be awarded to potential future students as part of university events, including medical studies and research. Further charges maintained that the director of information technology at the medical school was reselling used equipment, a child care program coordinator misused procurement cards, and $49,780 in gift cards purchased to give to students was misappropriated. Finally, $260 in misappropriated petty cash could not be traced to a single responsible individual, and the auditor held the institution's management jointly and severally liable to recover these funds. The claims were investigated by both the university's external auditors and the university's internal resources, and were disclosed in the university's 2011 audit report, published in August 2012 (Wright State University, 2012), as a serious matter that resulted in charges for recovery against employees, employee separations, and adverse press coverage for the institution. This incident, which was disclosed in detail in the first 11 pages of the university's audit report, resulted in the departure of the chief fiscal officer and significantly affected the public's perception of the institution's ability to manage its funds. Further, given that more than five individuals at all levels of the organization were involved, it called into question the ethical culture of

the institution. This claim illustrates how seemingly small monetary amounts of $20, $50, or $100 can tempt individuals into unethical behaviors and can accumulate into a significant risk for an institution. This incident should motivate this institution, and others, to take a look at the culture of ethics, the "tone-from-the-top," and also to ensure that employees and customers have avenues of addressing concerns early on. In fact, had there been indications internally, before the external auditor and Auditor of State became involved, that could have indicated that ethical breaches were occurring.

In the case of Ohio University, individuals had concerns about the significant amount of construction occurring on campus, how it was being funded, and whether the work was being performed unnecessarily to the benefit of the construction service firms that may have had connections to members of the university's Board of Trustees. In this case, the Auditor of State was able to forward the allegations to the university's audit firm, which conducted a review of the accusations during the course of their annual audit of the institution's financial statements. The firm's external auditor performed a review and found no improprieties. However, the concern about the propriety of frequent and substantial construction activity is something that the university's administration could review and have an outside engineering firm review.

At Youngstown State University, a similar complaint was made about the high level of spending by the athletic programs in a time when other university budgets had been reduced. Specific evidence was presented regarding travel expenses to "exotic foreign destinations" such as France to recruit future students, and for family members travelling with employees or student athletes, as well as for the use of college procurement cards by student athletes to purchase such travel. This is a prominent topic in the United States because of the size and scale of the financial activity that many student athletics programs generate. For big universities, the athletic coaches often earn more than the president of the university, and student athletes essentially work without pay and are lobbying on a national level for the right to collectively bargain for compensation, as in the 2014 case of the College Athletes Players Association against Northwestern University. Finally, there

have been significant scandals related to illegal payments to players and coaches from fans and alumni, which have resulted in the resignations of coaches and presidents (*New York Post*, 2011).

In the case of the Youngstown complaint, the university administration reviewed the expenses and found no wrongdoing, and that all travel and travel-related expenses were allowable by both the university and the National Collegiate Athletic Association. This is a good example of the process by which fraud complaints arise in response to topics that garner significant national attention, essentially by causing the public and an institution's employees to scrutinize activities more closely and with more suspicion.

4.2.2.3 Complaints Related to Accreditation and the Closure of an Institution

One of the 12 complaints was related to accreditation and resulted in the closure of the institution. On October 20, 2013, an aggressively marketed and quickly growing two-year college that was operated by a private college in Ohio closed its doors and ceased to exist (Blomenstyk, 2013). Several thousand students' educational plans were interrupted when this private institution was told that its adaptive, online learning program would not receive accreditation. Although this was a privately operated institution, it was operated inside of the State of Ohio and had received licenses from the state to operate as an institution of higher education. Because the university that ran the program was a private institution, no state funds had been used in the creation of the two-year program, and therefore if financial theft or fraud had occurred at the institutional level, the responsibility for investigation would lie within the institution, unless someone were to file a criminal charge against the institution directly. Secondarily, the State of Ohio Board of Regents is responsible for licensing institutions of higher education and may have some influence over the private college or university. The Auditor of State may have decided that this was a case of yet another hopeful new business model that failed, and referred the issue to the Ohio Board of Regents for their consideration.

4.2.2.4 Complaints Related to Institutional Theft of Student Funds: Student Aid Practices

Three of 12 complaints concerned institutional theft of students' funds. At Marion Technical College a complaint was registered against the institution for charging students tuition when students would have to repeat courses where passing grades were not achieved. In this case there may have been some misunderstanding as to the reasoning that a student would repeat a course and then be charged for the second enrollment. The Auditor of State dismissed the claim because students either enrolled at will or had the opportunity to seek a correction to any mistaken billing through the college. Retention of tuition for first-generation college students is a topic of some controversy, as these students are often socio-economically disadvantaged and unsuccessful with first-time enrollments; when they are forced to repeat courses, they may spend a majority of their available state support funds on remedial courses and ultimately run out of funds to complete their education (Mitchell, 2014). This is an example of a topic that is well known and receives coverage in the mass media, reinforcing people's awareness of the issue and their sensitivity to possibly fraudulent situations.

At the University of Akron and Cleveland State University, one student athlete had attended both institutions, transferring from Akron to Cleveland. Three complaints were made to the Auditor of State by the mother of the student, alleging that both institutions had fraudulently showed her daughter to be enrolled in classes and had applied for financial aid on her behalf, but that her daughter had never received the aid nor attended classes. This is a common problem in higher education, where students will apply to the institution, apply for financial aid, and then never attend. In fact, due to the relatively large amounts of state support available to students with low-income backgrounds, this financial aid fraud has become common across the United States, as students would enroll, receive their state support, and never attend classes (Federal Bureau of Investigation, 2014). However, a second student aid fraud has also become increasingly common. In this instance, university or college employees participate in what is known as a "fraud ring," to embezzle or steal students' financial aid (Marquet, 2011). In the case involving

University of Akron and Cleveland State University, the Auditor of State did not pursue further investigation because the student's mother did not claim fraud, and ruled that "Description of events does not indicate fraud or theft as claimed."

4.2.3 Discussion of Findings

Evidence that transparency existed as a moderating variable was identified primarily by the ease of access to an ICT claim log and the availability of detail case records via public records request (MV1). Evidence that some form of policies and procedures existed to establish and maintain MV1 were also found (MV2). Guidelines or policy directives that encouraged or required institutions to take a structured approach to prevention and proactive learning were not found (MV3). Evidence of all of the Expected Outcomes were identified. Specifically, the rate of incidence of substantiated anonymous claims involving fraud or theft at institutions of higher education in the State of Ohio is low. The shared services approach employed by the State of Ohio to provide whistleblower reporting services, which incorporates all state institutions into one central reporting and investigative resource. While the matters reported reflected real concerns on topics of strategic importance to institutions and their management practices, only three of the 12 claims, or 25%, resulted in proven cases for recovery and prosecution.
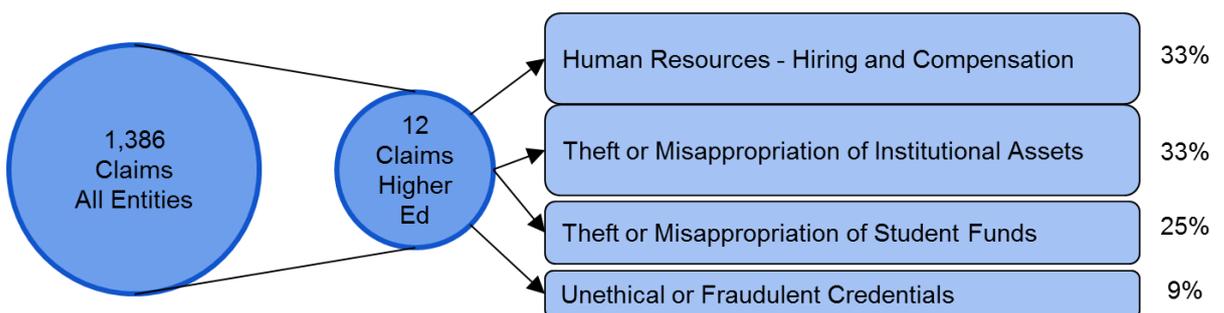
Figure 25: Summary of Claims Affecting Higher Education - Ohio 2012-2014 (Source: Own Work)

Each case presented institutional administration the opportunity and obligation to review their internal procedures related to these matters. As depicted in Figure 25, the areas impacted were found to be hiring and pay practices (33% of claims), theft of institutional resources (33%), theft of student funds (25%), and institutional and personal credentials and accreditation (9%). Severity of such incidences can be significant, in terms of damage to institutional reputation and consumption of management resources. Internal initiatives to improve awareness and effectiveness of internal controls may have prevented the issues identified. What may have helped ensure the completion of internal administrative follow-up on all issues is a mandate extending the authority of agencies beyond reporting and enforcement, requiring operational improvements and enhanced communications for the purposes of driving organizational learning for both the Auditor of State and the Ohio Board of Regents. In the cases analyzed here, the Auditor of State was focusing solely on the traditional topics of the classical scope of vouching and validating the accuracy of financial statements, and of identifying fraud and theft. This is evidence that the role of the internal audit function has not expanded beyond traditional roles, into new, value-added activities such as evaluating and improving the effectiveness of administration.

4.3 Level 2 Findings: Comparing State-Level Mechanisms

These findings presented below summarize the wide variation in responses received from each of the state's governing bodies, and are directly influenced by the legislative framework that is unique to each state, and characterized by significant differences in history, priorities, and culture. The wide variations in findings, such Michigan with no process or mandate, or the 12 claims in Ohio compared to 300+ in Massachusetts, a comparatively small state, contrast starkly against the few findings reported and tracked in California, one of the largest and most influential states - contradict the intuitive feel that would be expected from similar or consistent processes. This exploration began with the state of Ohio.

4.3.1 Ohio

The Ohio Level 1 field study presented in detail in section 4.2 of this dissertation are the basis for comparison with the findings from the exploration of additional states and their respective practices that follow. Therefore it is important to define the key findings from the Ohio Field Study that are relevant for comparison. These initial field study findings are shown in Table 20 and discussed in detail below. Twelve key process control points or features were identified as important elements of an effective process and the findings from Ohio are shown where elements were present or missing. The first key control point, the existence of a process to solicit and collect whistleblower claims is a fundamental starting point for learning in that the organization must solicit and collect complaints in order to establish the basis from which to improve itself. This Key Control Point is clearly fulfilled by the state of Ohio which had a functional system to collect and preserve a log of complaints and concerns received. It should be noted that the topic of legal framework and whistleblower protections may be an obvious first key control point. This was not included in the research due to the complex, multi-faceted nature of that legal subject, and also to allow this research to focus on the RECIPIENT of the claims and how the RECIPIENT is using claims to improve their ability to protect stakeholders from wrongdoings.

The second control point then checks to see if the list or log of claims exists, is it then available to the public stakeholders through public records request or electronically online. This is a seemingly simple task that is complicated by the necessity to preserve confidentiality, not damage the reputation of the complainant, nor of anyone accused through the claim.

Therefore, a level of redaction or editing and filtering of the narrative of the claim is required to maximize transparency by allowing stakeholders to understand the nature of the claims without revealing individual specifics.

Table 20: Key Process Control Points Identified in Field Study (Source: Own Work)

	Key Process Control Points identified in Field Study	
	Control Point	**Ohio**
1	Solicit and collect whistleblower claims	YES
2	Log of claims available via public records request	YES
3	Follow-up and investigation details available via public records request	YES
4	Reporting of findings available to public	YES
5	Track issues to resolution and completion (multi-year)	NO
6	Evidence of learning and improved immunity to internal fraud/theft/misconduct	NO
7	Estimates of potential loss	NO
8	Legal authorization or mandate to address management issues	Auditor - NO Board of Regents - NO
9	Complainant Persistence	YES
	Nature of Claims and Findings	
10	Volume	Low
11	Materiality	High
12	Subject of Claims	Misconduct, Fraud, Theft

Additionally, where formal investigations are required, confidentiality may be required as investigators seek to uncover details and evidence or confirmation of the claim. The state of Ohio data reviewed from the electronic log available online may have been affected by the need for redaction, without replacement by an anonymous narrative. A large number of redacted entries existed in the log file, and simply statistically extrapolating, this may have included as many claims towards higher education as the non-redacted log entries.

The third key control point identified is the availability of claim details and investigators work papers to stakeholders. This was important to the more thorough understanding of both the mindset and condition and sophistication of the complainant – as most of the original complaints were included in the work papers that were received through the public records request – as well as understanding the path or course that was taken by the

investigator, and how they decided upon the disposition of the claim: forwarding for criminal prosecution or further investigation, or referral to the institution for investigation and remediation. Interestingly, redaction was not employed in these claims, which may have been an oversight on behalf of the Ohio Auditor, and may have revealed the identity of the complainant and allowed the accused to pursue the complainant.

The fourth key control point looks at the findings of the investigation and the presence or existence of a formal audit report. Given the complexity and frequency of cases, these reports may vary in their length and volume. Key elements of a formal audit report would include an analysis of the circumstances that allowed a situation for wrongdoing to occur or appear to occur, as well as the motivations and behaviors of the individuals involved. This would allow management and stakeholders to better understand opportunities for improvement in organizational processes or individual behaviors in order to better prevent the wrongdoings from recurring. In the case of Ohio, these were very simple track sheets that did not in themselves reveal the details but rather summarized the disposition of the case.

The fifth key control point address the issue of the persistence of an investigation once a claim is received and an investigation is started. First, it was evident that for several of the claims filed in Ohio that the ultimate resolution of the issue was found only after the complainant contacted the Auditor repeatedly providing them notification that the situation that drove their concern still existed and had gone unaddressed. In the Stark State College claim, two years transpired between the first complaint and the final disposition by the state in response to repeated inquiries by the complainant. In general, the time frame for proper investigation and due process against the perpetrators of the wrongdoing can take many months at best, and can easily exceed several years to complete the final resolution. This control point addresses the ability and disciplines employed by the state to ensure that active claims and investigations are not lost or forgotten over time, and that the ongoing state of the investigations and research are disclosed to stakeholders. It was

not apparent that Ohio had a formal process for updating stakeholders on the status and maintaining a clear record of open complaints vs. resolved complaints.

The sixth key control point identified was to find any evidence of learning and improved internal processes within the recipient organization. Because it was not required for the recipient to respond to the Ohio Auditor of State, there was no formal record or response which would document the actions taken by the institution to ensure that these wrongdoings were both prevented from recurring and also detected if they did occur again. This component of the process of demonstrating that the organization is learning and improving is essential for the completion of the effort to become a safer environment and improving the lives of the stakeholders. Evidence that was sought are such documentation as public announcements of the improvements or private publication of the intentions of the institution to modify or change processes, to assure that the circumstances which led to the claim do not recur, or that employees and stakeholders are aware of the circumstances and the correct response that is expected – which will naturally be different in scope and description for each category of stakeholder: be it students, visitors, faculty, staff, administrators, or board members. In the case of Ohio, none of this evidence was found in the work papers or in internet searches of the institutional website, press, and media.

Key control point 7 had to do with the estimate of the consequences of the reported wrongdoing. In some cases, this may help motivate, focus, and prioritize the attention of the investigators and administrators based on the severity of risk to individuals or the institution. Ohio did not appear to make an assessment of the risk to the individual or institution. As noted in the literature review, Thomas & Schermerhorn (2004), and their diagram shown in Figure 15 show the categories of organizational and personal risk – with the non-monetary impact often being the most substantial and significant are for long-term, sustained damage.

Key control point 8 looks at the legal mandate and obligation of the recipients to investigate and resolve issues that are raised. In the case of Ohio, several cases were identified where the authority and mandate of the first level recipient (the Auditor of State) and then the second level recipient (The Board of Regents) did not have the legal authority to address and resolve the issues that were identified by the complainant. These issues were entrusted to the institution / university or college for resolution, who may or may not have felt compelled or obligated to resolving these issues as well.

Key control point 9 looks at the persistence of the complainant and their role in ensuring that follow-up and resolution is obtained. This also expands the research to include the scope of the responsibility or interested actors and agents who are motivated to improve the institutional climate to include all stakeholders. What has the stakeholder done or can they do to ensure that issues are addressed and resolved? Persistence and commitment are required and in the case of Ohio was exhibited by complainants in both of the case of Stark State College and the University of Akron case. In some cases, this obligation - moral or ethical obligations – are sometimes codified in law, which individuals are required to disclose wrongdoings or be found to be complicit in hiding them.

Key control points 10 – volume of claims, 11 - materiality, and 12 – the subjects covered by the claims, all attempt to characterize and describe the claims as a group in order to understand the effectiveness of the framework for soliciting and collecting claims. First, is the volume of claims natural or artificially inflated by a legislated or policy or procedural behaviors or implementation or interpretation? Second, the materiality, or significance of the claims and how serious and damaging are the claims to individuals or the institution? Are the claims centered on low risk, low impact concerns such as the theft of a device or one-time small value theft? Or rather high potential impact to the institutional reputation and perhaps its ability to continue as an institution? These criteria for the evaluation of the potential impact of a concern should extend beyond the monetary. Finally, what subjects are being covered by the claims? Theft, Fraud, Misconduct? Ethical breeches? Other wrongdoings?   Are they occurring evenly or perhaps focusing on monetary

wrongdoings and overlooking or not addressing ethical breaches or interpersonal misconduct?

The findings and key control points defined above that were identified through the Ohio Level 1 field study provides the basis for the comparison with the additional states and nations that follow.

4.3.2 Massachusetts

The Massachusetts auditor returned 69 pages containing 380 individual complaints or whistleblower reports, received between January 1, 2010, and March 25, 2015. While numerically the majority of these items tracked involved theft reports of physical assets, mostly computers, other portable assets, or cash in estimated loss dollar values below $1,000, a total of 24 fund thefts or acts of embezzlement were reported that totaled over $4.45 million, of which one fraud scheme totaled $3.8 million. Table 21 summarizes these findings and uses the categorizations provided by the auditor to provide some insight into the nature of the claims that were tracked by the state.

The factor that is unique about Massachusetts and dramatically increases the number of claims is the legal requirement of institutions to report any type of theft or loss to the state. Chapter 647 of the Acts of 1989 Internal Control Legislation, signed into law in January 1990, the law states that "All …losses, shortages, or thefts of funds or property shall be immediately reported to the state…." The result of this legal framework is a much higher number of claims being tracked and reviewed for higher education in Massachusetts. The inclusion of campus-related thefts and vandalism, by nature relatively low in complexity and value, obscures the analysis and visibility of more difficult topics, such as employee misconduct or ethics violations which can have a much larger impact.

The consequence of this for our comparison to Ohio is that Massachusetts has a significantly larger count of claims – the majority of which address the theft or loss of some small value piece of equipment or other asset –

Table 21: Claims made against institutions of higher education—Massachusetts (Source: Own Work)

Fraud Complaints Received by the Massachusetts Auditor of State between January 2010 and March 2015				
Type of Loss	Incidents	Estimated Loss	Percent of Incidents	Percent of Loss
Theft, property	301	$ 451,500	79%	10%
Theft, cash	30	$ 15,000	8%	0%
Theft, fund	24	$ 3,966,200	6%	89%
Miscellaneous	15	$ 7,500	4%	0%
Vandalism	10	$ 5,000	3%	0%
Total All Claims	380	$ 4,445,200	100%	100%

approximately 330 out of 380 claims or 87% or 93% if vandalism and miscellaneous are included. These include such claims as "Report 1,542 – iMac stolen from room $339" or "Report 1,539 – Petty cash stolen $200".

Upon requesting details from the auditor for 12 of the potentially most significant claims, the auditor responded that only one audit report was available, specific to the Maritime Academy, concerning some controls over payroll and ethics of an instructor. The review of this report and the details of a sample of 12 of the non-theft related claims are presented in Table 22 and discussed in detail that follows. Case 1349 involved fraudulent or improper expenses charged to a University Purchasing Card at the University of Mass - Dartmouth. The Auditor's log entries provided through the public record request read "Spoke with Bob Harrison 3/30/10 who is following up on these incidents and will furnish more information when it becomes available.

Table 22: Overview of Selected Claims from Massachusetts (Source: Own Work)

	Case No.	Claim Description	Exposure	Category
1	1349	overpayment of employees via expens report fraud		wage fraud
2	1379	irregularities in student accounts		student funds
3	1403	dual employment, employee fraud		wage fraud
4	1486	thef of mail		theft
5	1878	embezzlement	$ 16,000	unknown
6	1537	Memo Summary of no activity		unknown
7	1507	Memo Summary of no activity		unknown
8	1502	credit card scam - employee theft		expense fraud
9	1943	embezzlement - check scam	$ 3,800,000	expense fraud
10	1966	data breach through laptop theft		unknown
11	1991	student funds embezzled		student funds
12	2056	embezzlement	$ 150,000	unknown

Copy to John Wilkes. 7/28/10: UMass conducted internal inquiry. Recommendations include requiring a signed supervisor approval on employee Procard statements. Also, all business meal expenses submitted for reimbursement should have a clear business purpose and a list of attendees." This is an indication of an attempt by the auditor and institution to recommend improvements and demonstrate learning by reducing the likelihood of wrongdoing occurring and also going undetected. Note that according to the auditors claim log, the time to process this case took 5 months from the time of the initial report.

Case 1379 and Case 1403 were two separate reports that involved the Massachusetts Maritime Academy, which according to the auditor's log, warranted its own special audit report. From the case log: "Details from the case: Irregularities in student financial aid, payroll and work study, timesheets, cash disbursements in the athletic department. H. Olsher followed up with a phone discussion with Mike Joyce. Subsequently Mr. Joyce met with John Parsons, Ken Marchurs and Howard Olsher. MMA will hire an independent outside auditor to perform a review. $5000 is an estimate. Copy to J. Wilkes. This issue triggered Office of the State Auditor audit report number 2011-0182-12S." According to the Auditor's log, the original claim was made in March 2010 and the final report issued

May 2011 – or about 14 months to investigate and summarize. These issues along with the other three resulted in separate audit reports looking at fraud and theft and unethical behavior by employees. The initial estimate of total monetary losses was far exceeded once investigations were completed, with total monetary losses were an order of magnitude higher than the amount originally estimated. These damages do not include and damage to reputation of the institution or loss of student enrollment due to a poor image.

Case 1486 Salem State University was reported in March 2010 and the case was closed in Feb 2011. A contract employee from a mental health facility in Peabody was $0.00 stealing mail from the student's mailroom. Property included jewelry, cash and gift cards. All mail was intended for students only and had already been sorted from the rest of the university's mail. This is a clear example of a report made to an agency which deems the issue "out of legal mandate" but the issue still needs to be addressed. The auditor's log states "Report Comments: HO and SP spoke to Stephen Hoover on 2/4/11 and determined that no state property or funds were involved in this incident. Therefore, this is not a Chapter 647 issue".   There is no record of institution or other follow-up on this case, nor of learning to prevent stakeholders.

Case 1878 Frampton State University involved an employee "who had been purchasing gift cards, Red Sox tickets and $16,063.00 making other inappropriate purchases with a University Credit Card that was assigned to him. This appeared to go on from December 2012 to May 2013." This issue was unresolved in the auditor's log, with no outcome or status as of March 2015 although the issue was reported in June 2013.

Case 1537 is a memo summary entry which simply summarized that "This is an entry made in May 2011 stating that from Feb - April 2011 that there were no claims or reports received".

Case 1507 entry states simply "No 647 case" and provides no details. This is an excellent example of an instance of poor details or someone intentionally concealing the details of a complaint – be it small or large – either not worth mentioning or dangerous to mention.

Case 1502 involved an alleged Credit Card fraud scam where "online payment was made using credit card. Refund was requested to cancel charge. Refund was applied to a different card. Bank is notified that original credit card was stolen and removes original charge. Credit card refund was applied to a different card in a scam to steal money. Discussed this issue with Kyle David, UMass Director of Internal Audit, on 11/14/11. Sent follow-up letter 2/27/12".

Case 1943 documents post-facto the $3.8 Million fraud and embezzlement scam at the UMass Medical School. The auditor's log shows only that activity occurred in June 2013, and that the Report was filed in Dec 2013, and was only created by the University of Massachusetts Medical School after the death of the employee and the revelation that assets of the state were stolen. This is the case of Leo Villani - a $46,000/year financial analyst who stole regularly in a well-hidden scheme that was uncovered only as a result of his death. Leo was employed by the UMass Medical School to collect on debts owed to the hospital by individuals in their care. This often required the forced bankruptcy and seizure of assets. Leo found a way to have the assets and proceeds of asset sales transferred to a foundation that was very similar in name to the universities collection entity. Uncovered only after Leo's accidental death in a car accident involving his new Porsche, his successor uncovered irregularities in accounts kicking off a forensic investigation into the scope and extent of Leo's thefts over 5 years. The largest fraud tracked in this report, $3.8 million, which makes up the majority of the value reported to have been tracked by the state, was uncovered only after the employee's death. This complex fraud scheme was perpetrated by a single administrative employee with access and ability to manipulate and defraud without detection. The auditor had not yet provided a report on this incident at the time of this research. This case emphasizes the importance and also the limitations of internal control and whistleblowing, and it shows a clear difference between informal everyday crimes of theft of property and its sophisticated relatives: embezzlement and more sophisticated theft schemes.

Case 1966 involves possibility of data breach, which represents both a monetary loss and non-monetary damage to individuals who have their identities stolen and the institution whose reputation is badly damaged. In January of 2014, the University of Massachusetts - Amherst reported that several laptop computers had been stolen since 2010 and these computers may have compromised the personal data of 88 students. The auditor's log states: "NOTE: A copy of letter was received from the Office of the Attorney $0.00 General regarding the notification by the University of Mass. Boston of a data breach. One of the stolen laptops had contained social security numbers and names of 88 students."

Case 1991 involves a Massasoit College employee who is accused of perpetrating fraud. From the auditor's log "Financial Aid was credited to a student's account who was not $6,894.00 eligible to receive Title IV and/or State financial aid. A family member employed in the College Registrar's Office in fall, 2013, retroactively changed the student's record. By changing the records the student was fraudulently relieved of expenses made, and the College is liable for the erroneous award of financial aid totaling $6,894.00". This loss was reported to the Auditor in Feb 2014 and as of March 2015 no additional follow-up had been taken.

Case 2056 involves the University of Massachusetts - Lowell where employee fraud was found to be part of a multi-year scheme. Reported in March 2013, the case record has no updates showing. Denise Daly, a bookkeeper who also handled cash for a university athletic center, had embezzled over $215,000 over 3 years. This fraud occurred during a period of strong growth - 36% increase in student enrollment - and that receipts at the athletic center were up proportionally. (Redmond, 2015)

The review of this sample of issues and a statistical and qualitative evaluation of the whistleblower claim log result in this comparison to Ohio's key control points:

Table 23: Massachusetts Findings Compared to Ohio (Source: Own Work)

Key points comparing responses between states			
	Control Point	**Massachusetts**	**Ohio**
1	Solicit and collect whistleblower claims	YES	YES
2	Log of claims available via public records request	YES	YES
3	Follow-up and investigation details available via public records request	NO-RARE	YES
4	Reporting of findings available to public	YES	YES
5	Track issues to resolution and completion (multi-year)	NO	NO
6	Evidence of learning and improved immunity to internal fraud/theft/misconduct	NO	NO
7	Estimates of potential loss	YES	NO
8	Legal authorization or mandate to address management issues	Auditor - NO	Auditor - NO Board of Regents - NO
9	Complainant Persistence	No Evidence	YES
	Nature of Claims and Findings		
8	Volume	High	Low
9	Materiality	Low	High
10	Subject of Claims	Theft	Misconduct, Fraud, Theft

Table 23 shows the aggregate summary of the analysis and evaluation of the state of Massachusetts controls and processes and compares this analysis to Ohio's.

4.3.3 Michigan

The Michigan Auditor General was sent the same request for information as California, Ohio, and Massachusetts, and the response received was that, at the state level, no solicitation or reporting was performed, and that this was the responsibility of each institution. The evaluation of this response using the rubric used to evaluate Ohio and Massachusetts is included in Table 24 in order to emphasize the significance and consequence of the total absence of controls within the state of Michigan.

Michigan exemplifies the decentralized approach to control management and somewhat the other end of the spectrum when compared to Ohio and Massachusetts. The Auditor General stated that the boards of each of the respective colleges and universities were responsible for administering their own internal controls.

Table 24: Evaluation of Michigan Key Controls (Source: Own Work)

	Key Process Control Points - Michigan	
	Control Point	**Michigan**
1	Solicit and collect whistleblower claims	NO
2	Log of claims available via public records request	NO
3	Follow-up and investigation details available via public records request	NO
4	Reporting of findings available to public	NO
5	Track issues to resolution and completion (multi-year)	NO
6	Evidence of learning and improved immunity to internal fraud/theft/misconduct	NO
7	Estimates of potential loss	NO
8	Legal authorization or mandate to address management issues	NO
9	Complainant Persistence	NO
	Nature of Claims and Findings	
10	Volume	NA
11	Materiality	NA
12	Subject of Claims	NA

4.3.4 California

The investigation reports received from the California State Auditor were reviewed for the years under study, 2010-2014, and only three issues were found to be related to higher education. It should be noted that for the time period under consideration reports were not available for all years, specifically that for the year 2013 no report was available from the state (possibly due to a vacancy within the Auditor's office) and that for some years aggregate statistics of the number of claims were not mentioned in the reports. Further, actual logs of claims were not made available to the public nor were the auditor or

investigators work papers. The Bureau of the State Auditor received approximately 5,000 allegations of improper governmental activities in 2009, which required it to determine whether the allegations involved improprieties by state agencies or employees. In response to the allegations, the bureau opened approximately 1,000 new cases in 2009 as can be seen in Table 25. The Auditors reviewed or continued to work on 100-200 unsolved cases it opened previously in that year. For these approximately 1,200 cases, the bureau completed a preliminary review process and determined the cases that lacked sufficient information for an investigation. The bureau also referred cases to other state agencies for action and—either independently or with assistance from other state agencies—conducted investigations of cases. The 2009 annual report details the results of 11 particularly significant investigations completed by the bureau or undertaken jointly by the bureau and other state agencies.

Table 25: Summary of California Claim Data (Source: Own Work)

Overview of California Claims						
Report	Time period	Allegations	New Cases	Previously Opened	Total Open Cases	Report Cases	Higher Education
I2010	Jan - Dec 2009	4990	882	122	1004	11	2
I2010-2	Jan - June 2010	2444	420	327	747	8	0
I2011-1	Jul 2010-Mar 2011	NA	NA	NA	NA	7	0
I2012-1	Apr 2011-Jun 2012	NA	NA	NA	NA	9	1
I2014-1	Jan 2014-Dec 2014	NA	NA	NA	NA	4	0
2010-2014	Jan 2009-Dec 2014	7434	1302	449	1751	39	3

The details of the three claims that were relevant to higher education that could be obtained through the State Auditor's annual reports are described below.

At California State University, Northridge, for almost five years, an employee of California State University, Northridge (Northridge), improperly allowed a business owner and his three associates to use a university laboratory facility, equipment, and supplies without compensating Northridge. This inappropriate activity represented a loss of compensation to Northridge that totaled $20,790.

At California State University, Channel Islands, an employee of the university, Channel Islands, engaged in incompatible activities and failed to disclose gifts he received from contractors. These gifts have an estimated value of $220 in 2007 and $300 in 2008.

In 2012 Audit report, the case of that was originally reported in December of 2009 reported that California State University, Chancellor's Office had wastefully reimbursed a high-level official more than $152,400 between July 2005 and July 2008 for expenses he improperly claimed. In July 2008—before the issuance of our report—this official accepted employment from the Office of the President at the University of California (university).

No further information was available on these cases, and per the communications between this researcher and the California Auditor's office and legal counsel, no work paper details can be shared with the public, as stated in this excerpt below:

> *"To the extent that your request seeks records that are governed by the California Whistleblower Protection Act (Whistleblower Act), which applies to our investigative function, we are not lawfully able to produce any records governed by the Whistleblower Act. The CPRA exempts from mandatory disclosure any "records, the disclosure of which is exempted or prohibited pursuant to federal or state law." (Gov. Code, § 6254, subd. (k)). The Whistleblower Act contains such an exemption from disclosure and prohibits the California State Auditor (State Auditor) from disclosing the identity of any person who submits a complaint or confidentially provides evidence regarding a complaint under the Whistleblower Act (Gov. Code, § 8547.5, subd. (b)). Further, the Whistleblower Act prohibits the disclosure of any records pertaining to the investigation of a whistleblower complaint, including all investigative files and work product related to an investigation (Gov. Code, § 8547.7, subd. (c))."*

> (Schmidt, Personal Communication, March 13, 2015)

A notable best practice was the fact that issues, once identified, were carried forward into the next year's report until resolution of the investigation was completed. California's processes for tracking and reporting issues are best practice, being the only state that monitored issues through resolution in their reporting. Additionally, the fully online availability of the annual summary reports was also unique and best practice.

The assessment of California's claims using the key control criteria rubric is shown in Table 26. The absence of a claim log (point 2) that is accessible to the public and the absence of access to work papers (point 3) are noted. Additionally, there was no evidence of process improvement or environmental improvements that would indicate that claims are being used to learn (point 6).

The auditor maintained and reported estimates of costs spent investigating a claim but did not estimate the exposure to the system or institution or individual (point 7). The Auditor did use a limit in their mandate to prevent the availability of information and also did not take more action than repeating the publication of issues (point 8). The volume of claims given the large population represented by California is extremely low (point 10), and contrasts strongly to Massachusetts and Ohio. Materiality was rated high due to the roles and tone-from-the-top involvement of the misconduct of the largest claim (point 11).

Table 26: Key Control Point Assessment for California (Source: Own Work)

Key points Assessment for California		
Control Point	**California**	**Ohio**
1 Solicit and collect whistleblower claims	YES	YES
2 Log of claims available via public records request	NO	YES
3 Follow-up and investigation details available via public records request	NO	YES
4 Reporting of findings available to public	YES	YES
5 Track issues to resolution and completion (multi-year)	YES	NO
6 Evidence of learning and improved immunity to internal fraud/theft/misconduct	NO	NO
7 Estimates of potential loss	NO	NO
8 Legal authorization or mandate to address management issues	Auditor - NO	Auditor - NO Board of Regents - NO
9 Complainant Persistence	YES	YES
Nature of Claims and Findings		
8 Volume	Low	Low
9 Materiality	High	High
10 Subject of Claims	Theft	Misconduct, Fraud, Theft

Finally, it is noted that all three claims centered on theft of state monies, and that no claims of misconduct or other unethical behavior were included in these reports.

4.3.6 Discussion of Findings

The findings from the expanded comparison of four US states show that there is wide variation in practice, focus, and transparency generated by the processes used in these states to administer claims of fraud, theft, and misconduct reported via whistleblower complaints. Michigan excluded, evidence that transparency existed as a moderating variable was identified both through the Massachusetts claim log and the availability of detailed reports online in California (MV1). Evidence that some form of policies and procedures existed to establish and maintain MV1 were also found in both California and Massachusetts (MV2). Guidelines or policy directives that encouraged or required institutions to take a structured approach to prevention and proactive learning were not

found in any of the states (MV3). Evidence of all of the Expected Outcomes were identified, where the responses and approaches used in each state varied from no information solicited or maintained (Michigan) to full histories that include case-level detail (Ohio), as well as having excellent multi-year case tracking and reporting (California) to the voluminous tracking of every property loss or damage in every institution (Massachusetts). Where no evidence was found of mechanisms to show improvement and learning from such claims, this may have been a result of both legislative history and a focus on enforcement and the punishment of perpetrators. Although anonymous "whistleblower" claims are essential to the governance and administration of higher education, state-level mechanisms vary widely in their approaches to administering this process and ensuring better future outcomes. Figure 26 shows the results of the expanded study with Massachusetts having the largest absolute count of claims, 96% of them focused on theft and fraud of small monetary nature. Contrasting this with California which is shown to carry forward open cases year-to-year until resolved, with claims falling into three categories.
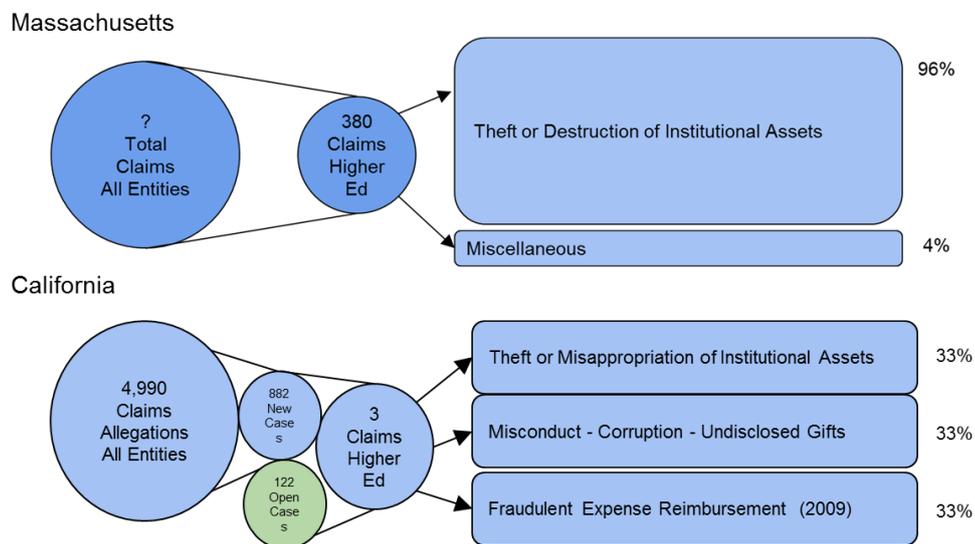
Figure 26: Comparison of California and Massachusetts Findings (Source: Own Work)

Establishing a national standard based upon best practices would ensure that institutions are making the best use of all information available to them to improve their immunity from employee fraud and theft and misconduct. The development of such standards and priorities can be undertaken by accrediting bodies and emphasized as components of the institutional strategic planning processes, in addition to national-level guidance. The topic of materiality and the threshold for the requirement of reporting was wildly different between California and Massachusetts, where California had an extremely high value filter that limited the number of claims it tracked for its large system of institutions to less than a handful, whereas Massachusetts tracked a seemingly endless list of small minute thefts and asset losses.

Figure 27 provides a visualization of the high-level assessment of claims and the variation by state on the nature of the claims received and tracked, as well as on the materiality of the claims. Massachusetts shown as high number of claims with low materiality, Ohio with a lower number but of higher significance and impact to the individual and the institution, and California with a very low number of claims, although substantial. Michigan is shown only as a memo as they have no formal system and do not track claims.
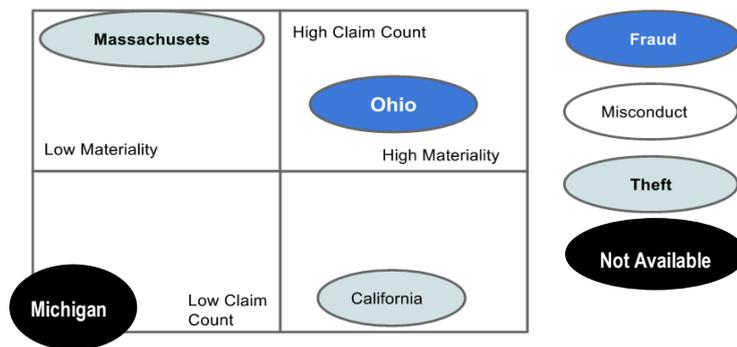
Figure 27: Multi-state comparison of the materiality and frequency of whistleblowing claims (Source: Own Work)

This research outlines a framework for institutions to proactively identify and learn from whistleblower claims in order to reduce occurrences, to shorten response times, and to improve transparency, and it extends the work of Janet Near and Marcia Miceli, which focused on protecting the whistleblower post-incident. The research established a rubric (see Table 20) to facilitate the analysis and comparison of the processes employed via key control points, which was applied to the data and responses from each of the states included in the study. In line with findings from Joe Christopher which focus on internal controls at universities in Australia, the findings from this investigation of four US states show that there is wide variation in practice, focus, and transparency generated by the processes used in these states to administer claims of fraud, theft, and misconduct reported via whistleblower complaints. The variation in responses and approaches used in each state ranged from no information solicited or maintained (Michigan) to full histories that include case-level detail (Ohio), excellent multi-year case tracking and reporting (California) to the voluminous tracking of every property loss or damage in every institution (Massachusetts). Additionally, no evidence was found of well-considered and executed mechanisms to show improvement and learning from such claims. This may have been a result of both legislative history and a focus on enforcement and the punishment of perpetrators. Although anonymous "whistleblower" claims are essential to the governance and administration of higher education, state-level mechanisms vary widely in their approaches to administering this process and ensuring better future outcomes.

Reviewing the responses and materials provided by each of the four states considered in this study provides a basis for comparison and clearly shows differences in approaches, types of claims reported, and varied levels of tracking, reporting, and public presentation. To facilitate that comparison, table 27 summarizes the evaluation of the key control points that became apparent throughout the process of requesting and analyzing the public records provided and compares responses from the four states, California, Massachusetts, Michigan, and Ohio.

Looking at each of the criteria, the key control points for discussion arose in the analysis of the findings. With regard to the process for soliciting and collecting whistleblower claims, the majority of states solicited claims, but not all did. The outlier in this process was the State of Michigan which had no mechanism or processes in place at the state-level to solicit or process or learn from whistleblower claims.

Further, the process for logging the claims received and monitoring the status of the claim were sometimes, but not always, available via public records request. Ohio had the most easily accessible log of claims that can be accessed from their public-facing website. Massachusetts provided a database of claim reports upon request, and California had only references to their online annual summary of findings. Logging claims and making them available to the public and stakeholders, while preserving the anonymity of the claimant, is a best practice demonstrated by Ohio.

The process of investigating claims and recording details in ways that allow materials to be made available via public records request was only observed in the state of Ohio. Ohio provided a number of internal documents for each case yet was still able to preserve the confidentiality of the whistleblower where possible, and this allowed an external third party to understand more details of the nature of the claim and to understand the investigative undertakings used to better understand and prove or disprove the claim. Massachusetts produced only one report of investigative findings, and this was available through their public website related to an issue at a trade school, although their count of issues included in their database was the highest of all states' responses. Additionally, the largest claim included in the whistleblower claim database was actually the documentation of a reported embezzlement scheme post-mortem, following the death of the perpetrator.

California provided an annual summary-level report about high-level claims against its institutions, and this allows a thorough understanding of a small number of select claims, but does not allow the public and stakeholders to review smaller, unselected claims, if they existed.

Table 27: Assessment of multi-state survey of administration of whistleblowing claims (Source: Own Work)

Key points Assessment - Multiple US States					
	Control Point	**California**	**Massachusetts**	**Michigan**	**Ohio**
1	Solicit and collect whistleblower claims	YES	YES	NO	YES
2	Log of claims available via public records request	NO	YES	NO	YES
3	Follow-up and investigation details available via public records request	NO	NO-RARE	NO	YES
4	Reporting of findings available to public	YES	YES	NO	YES
5	Track issues to resolution and completion (multi-year)	YES	NO	NO	NO
6	Evidence of learning and improved immunity to internal fraud/theft/misconduct	NO	NO	NO	NO
7	Estimates of potential loss	NO	YES	NO	NO
8	Legal authorization or mandate to address management issues	Auditor - NO	Auditor - NO	NO	Auditor - NO Board of Regents - NO
9	Complainant Persistence	YES	No Evidence	NO	YES
	Scoring of 9 Key Control Points	**44%**	**44%**	**0%**	**56%**
Nature of Claims and Findings					
8	Volume	Low	High	NA	Low
9	Materiality	High	Low	NA	High
10	Subject of Claims	Theft	Theft	NA	Misconduct, Fraud, Theft

NA - Not Applicable - Missing or Not Present

Providing a summarization of the year's activities while providing stakeholders with an analysis of the types of claims received, notable high-profile or high-impact cases, and the resolution status on longer-term investigations is an important component of the effective management of these claims, and enables long-term learning and improvement. California was the only state that not only made the additional effort to summarize their annual findings in a report to their legislature and stakeholders, but also made this report available online for transparent access.

The process of tracking and monitoring issues to resolution and completion over longer, multi-year time frames is essential for government to sustain longer-term, bigger-scale

investigations. The States of Ohio and California provided some evidence that claims were investigated, and that evidence was available either on-demand via their public website or through public records request. With California's annual report example, salient cases were able to be shared and disseminated to a wider audience, and issues that were unresolved over multiple years were not lost or forgotten, but rather were carried forward in each subsequent year's report of findings.

In looking for evidence of learning and improved immunity to internal fraud/theft/misconduct that was undertaken by the state or the universities or colleges involved in the claims, no publicly available information was found in any of the states. In no case, was there any evidence that the governing bodies were able to learn and improve their immunity to these internal fraud, theft, and misconduct issues. California, in summarizing findings in a report that was then published on their public website, provided a mechanism for the institutions and governing bodies to become aware of the issues in other organizations and raise the awareness across all institutions and stakeholders. This expands upon the finding of Schmidt and Kiraly (2015), who found little evidence that institutions in Hungary and the United States publicly prioritized learning and improving the institutions' immunity from such claims via their strategic planning processes.

Categorizing the claims received from the state by the nature of the subject that they are addressing identifies substantial disparity in the nature of the claims and the types of processes or losses and risks identified by state. Each state that did solicit and log claims and a variation in the types of claims resulted in a larger or smaller volume of claims being tracked. Whereas Ohio received claims that involved a range of administrative and operational processes in the institution, in Massachusetts where legislation mandated the inclusion of the losses or damage to all state property, the sheer volume of claims was overwhelming, and in fact no claims of other nature were recorded in Massachusetts. This raises the question of whether this type of legislation and mandate simply adds noise to drown out and cover up other larger issues.

4.4. Level 3 Findings: International Comparison

The findings of the expanded research across several countries employing the perspective of the external stakeholder to evaluate the eight defined key control points are detailed in this section. Figure 28 shows the connection between the different criteria used in this phase of the research as necessitated by the different approach required to allow the cross-country comparison. It also shows the dual role of several key control points as assisting in the management and resolution of issues as well as stakeholder and organizational learning.
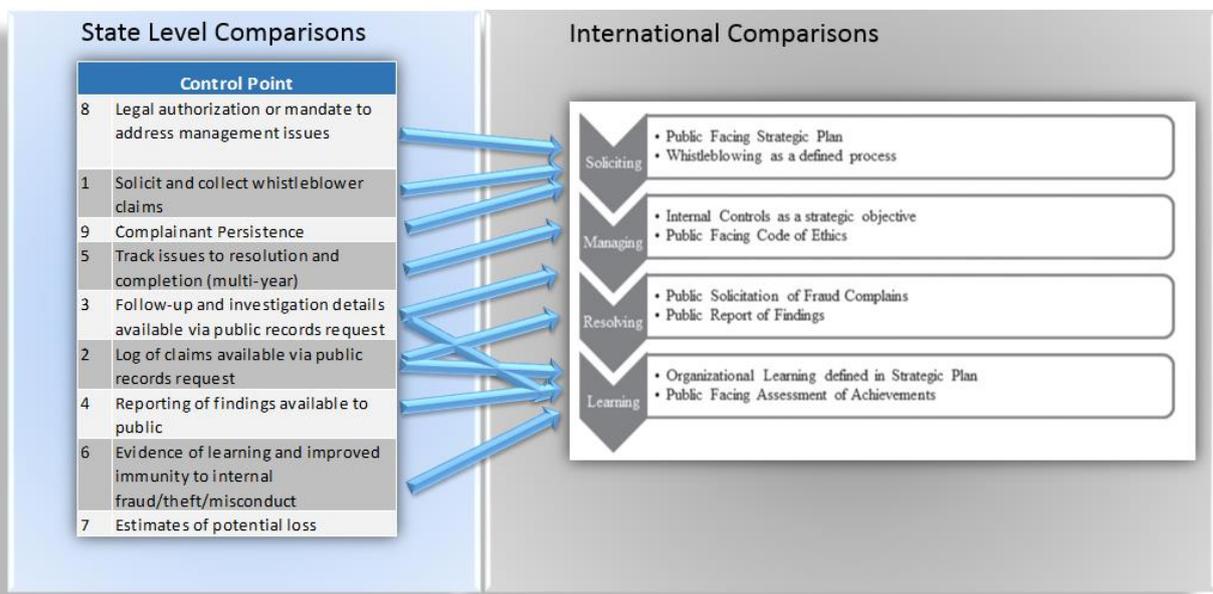
Figure 28: The Relationship of Key Control Criteria Tested (Source: Own Work)

Evidence was sought for the following key items: the existence of and the availability of the strategic plan: whistleblowing as a defined process for the solicitation of concerns, internal controls as a strategic objective, the existence and availability of codes of ethics or equivalent regulation, public solicitation of actual complaints received, public reporting of findings, whether organizational learning from complaints was a defined goal, and public reporting of achievements by the units towards the strategic plan.

4.4.1   Presentation of Findings

The findings of this phase are discussed below, first by country and institution, and then summarized in aggregate to facilitate the comparison between countries. A point scoring approach is used to aggregate fulfillment of characteristics and estimate and compare the average fulfillment of criteria across the observed dimensions. This point scoring methodology is frequently used in criminology and social sciences (Copas, 1993), and is applied where sample sizes are insufficient to perform probabilistic analyses such as Linear Discriminant Analysis, Logistic Regressions, or Density Function Estimations. In the US, the institutions under consideration were reviewed and contacted to obtain an understanding as to their objectives and goals with regards to open governance and use of ICT to facilitate transparency and learning. These results are shown in Table 28. The partial fulfillment of criteria such as defining whistleblowing as a process is based upon only a partial definition or incomplete or minimalistic definition of the process as part of more general internal control definitions. In the case of organizational learning or public presentation of strategic achievements, and progress towards learning, partial scores of 50% were assigned where these documents existed for a component of the institution but not the overall university – for example, where the policy and results were publicly available for the medical school or graduate or business colleges, but not for the institution as a whole.

Table 28: Institutional Key Control Point Findings- United States (Source: Own Work)

Key Control Point	Institution						
	University of Michigan	Ohio State University	UC Berkley	Univ of Minn	SUNY	Florida State University	US Average
Public Facing Strategic Plan (web)	100%	100%	100%	100%	100%	100%	100%
Whistleblowing as a defined process	50%	50%	100%	0%	100%	100%	67%
Internal Controls as a strategic objective	0%	50%	0%	0%	0%	50%	17%
Public Facing Code of Ethics	0%	100%	100%	100%	100%	100%	83%
Public Solicitation of Fraud Complains (web)	100%	100%	100%	0%	100%	100%	83%
Public Report of Findings (annual)	0%	0%	0%	0%	0%	0%	0%
Organizational Learning defined in Strategic Plan	50%	100%	100%	100%	0%	100%	75%
Public facing assessment of Achievements (web)	50%	100%	0%	0%	0%	0%	25%
Institution Score	**44%**	**75%**	**63%**	**38%**	**50%**	**69%**	**56%**
Point Scoring: 100% existed for full institution; 50% at least one component but not all; 0% was not available							

It is important to emphasize that the research was limited to a small sample and it is not appropriate generalize our results to these assumptions, these institutions are role models for their countries and play an important role in leading trends and establishing standards.

The University of Minnesota had no public facing policy definition of Whistleblowing, where the State University of New York (SUNY) and the University of California at Berkeley were exemplary websites and policy statements. Partial statements existed at the University of Michigan, Ohio State University, and the University of Pecs.

The only institutions with internal controls included in their strategic plans were Ohio State and Florida State Universities who had internal controls contained as a priority in component unit strategic plans but not for the entire institution. Public facing code of ethics statements were found for all but two institutions. The University of Michigan did not have a publicly available code of ethics for the institution.

Public solicitation of fraud claims was prevalent in the US, with 5 of 6 institutions having a web based claim submission mechanism, whereas only the University of Minnesota had not yet adopted this level of service. None of the institutions reviewed in this research made a public report of the annual findings, as a basis for organizational learning, improved prevention, and improved detection. Organizational learning was outlined in all but two strategic plans: the State University of New York (SUNY) and the University of Michigan made no explicit mention of organizational learning. Concerning the strategic plan and the published assessment of outcomes and achievements, only half of the institution fulfilled this criterion.

The results for Hungarian universities are shown in Table 29, performing the same tests provided the following results and similar partial scoring results related to institutional components having certain services and documents and processes available, but not for the entire university. Only one institution, Corvinus University did not have an institutional strategic plan publicly available. Several Hungarian institutions had no public facing policy definition of Whistleblowing. Five of the six Hungarian institutions with

internal controls included in their strategic plans. Organizational learning was outlined in the strategic plans of all Hungarian Universities considered. With regards to the strategic plan and the published assessment of outcomes and achievements, only slightly more than half of the institution fulfilled this criteria. None of the institutions reviewed in this research made a public report of the annual findings, as a basis for organizational learning, improved prevention, and improved detection. Public solicitation of fraud claims was prevalent, with all institutions having some type of claim submission mechanism. Public facing code of ethics statements were observed for all but one institution. The Code of Ethics at the University of Pecs was ready for acceptance at the time this research was performed (2015).

Table 29: Institutional Key Control Point Findings- Hungary (Source: Own Work)

	Institution						
Key Control Point	**University of Pecs**	**Corvinus University**	**University of Szeged**	**Budapest University of Technology and Economics**	**Eötvös Loránd University**	**University of Debrecen**	**HU Average**
Public Facing Strategic Plan (web)	100%	50%	100%	100%	100%	100%	92%
Whistleblowing as a defined process	50%	100%	0%	100%	0%	0%	42%
Internal Controls as a strategic objective	100%	100%	0%	100%	100%	100%	83%
Public Facing Code of Ethics	50%	100%	100%	100%	100%	100%	92%
Public Solicitation of Fraud Complains (web)	0%	0%	0%	0%	0%	0%	0%
Public Report of Findings (annual)	0%	0%	0%	0%	0%	0%	0%
Organizational Learning defined in Strategic Plan	100%	100%	100%	100%	100%	100%	100%
Public facing assessment of Achievements (web)	100%	0%	100%	100%	100%	100%	83%
Institution Score	**63%**	**56%**	**50%**	**75%**	**63%**	**63%**	**61%**
Point Scoring: 100% existed for full institution; 50% at least one component but not all; 0% was not available							

Table 30 shows the findings from the review of the top UK universities; University of Oxford had only pieces of a code of ethics, with no official document. Oxford and the University of St. Andrews were both missing the priority of improving internal controls in their online strategic plan. Additionally, neither university solicited claims online, they did not produce or make available an annual summary of complaints and findings, nor did they product a list of achievements towards learning. The University of London, also home to the London School of Economics and Durham University had only two of the key controls in place. University of London had only a public facing strategic plan and also

within that plan, a statement of the goal of improving internal controls, while Durham had only a defined whistleblowing process and public facing code of ethics. The Imperial College London conversely, was missing only two of eight key controls. Neither an annual report of findings nor a public facing summary of achievements were available. The University of Bath was similarly strongly place with only the omission of the public solicitation of claims and the annual summary of complaints and findings.

Table 30: Institutional Key Control Point Findings- United Kingdom (Source: Own Work)

Key Control Point	Institution						
	Univ of Oxford	Univ of St. Andrews	University of London (Including LSE)	Imperial College London	University of Bath	Durham University	UK Average
Public Facing Strategic Plan (web)	100%	100%	100%	100%	100%	0%	83%
Whistleblowing as a defined process	100%	100%	0%	100%	100%	100%	83%
Internal Controls as a strategic objective	0%	0%	0%	100%	100%	0%	33%
Public Facing Code of Ethics	50%	100%	0%	100%	100%	100%	75%
Public Solicitation of Fraud Complains (web)	100%	100%	0%	100%	0%	0%	50%
Public Report of Findings (annual)	0%	0%	0%	0%	0%	0%	0%
Organizational Learning defined in Strategic Plan	100%	100%	100%	100%	100%	0%	83%
Public facing assessment of Achievements (web)	100%	0%	0%	0%	100%	0%	33%
Institution Score	**69%**	**63%**	**25%**	**75%**	**75%**	**25%**	**55%**
Point Scoring: 100% existed for full institution; 50% at least one component but not all; 0% was not available							

The country institution findings are presented again together for comparison purposes in Table 31 which highlights the variation between countries, and also shows the relative overall similarity in compliance levels between nations. Specifically, the total absence of annual reporting of claims and investigative findings was universal. Additionally the effort and professionalism required to summarize and document and publish a list of achievements and improvements in the year was only rarely present outside of Hungary.

Table 31: Detail of key controls used by institution (Source: Own Work)

Country	Institution	Public Facing Strategic Plan (web)	Whistleblowing as a defined process	Internal Controls as a strategic objective	Public Facing Code of Ethics	Public Solicitation of Fraud Complains	Public Report of Findings (annual)	Organizational Learning defined in Strategic Plan	Public facing assessment of Achievements (web)	Institution Score
US	University of Michigan	100%	50%	0%	0%	100%	0%	50%	50%	44%
US	Ohio State University	100%	50%	50%	100%	100%	0%	100%	100%	75%
US	UC Berkley	100%	100%	0%	100%	100%	0%	100%	0%	63%
US	Univ of Mnn	100%	0%	0%	100%	0%	0%	100%	0%	38%
US	SUNY	100%	100%	0%	100%	100%	0%	0%	0%	50%
US	Florida State University	100%	100%	50%	100%	100%	0%	100%	0%	69%
US Average		100%	67%	17%	83%	83%	0%	75%	25%	56%
HU	University of Pecs	100%	50%	100%	50%	0%	0%	100%	100%	63%
HU	Corvinus University	50%	100%	100%	100%	0%	0%	100%	0%	56%
HU	University of Szeged	100%	0%	0%	100%	0%	0%	100%	100%	50%
HU	Budapest University of Technology and Economics	100%	100%	100%	100%	0%	0%	100%	100%	75%
HU	Eötvös Loránd University	100%	0%	100%	100%	0%	0%	100%	100%	63%
HU	University of Debrecen	100%	0%	100%	100%	0%	0%	100%	100%	63%
HU Average		92%	42%	83%	92%	0%	0%	100%	83%	61%
UK	Univ of Oxford	100%	100%	0%	50%	100%	0%	100%	100%	69%
UK	Univ of St. Andrews	100%	100%	0%	100%	100%	0%	100%	0%	63%
UK	University of London (Including LSE)	100%	0%	0%	0%	0%	0%	100%	0%	25%
UK	Imperial College London	100%	100%	100%	100%	100%	0%	100%	0%	75%
UK	University of Bath	100%	100%	100%	100%	0%	0%	100%	100%	75%
UK	Durham University	0%	100%	0%	100%	0%	0%	0%	0%	25%
UK Average		83%	83%	33%	75%	50%	0%	83%	33%	55%
Grand Average		92%	64%	44%	83%	44%	0%	86%	47%	58%

The following summary of findings shows a low overall level of fulfillment of the criteria established, and in one case, the case of the public report of findings, no institutions were found to have reported publicly a record or analysis of complaints received and outcomes from such complaints. Not all institutions had presented their strategic plans, if they existed, to the public via their website. Whistleblowing as a process was only defined slightly more than half (64%) of the institutions reviewed. Internal controls were rarely identified inside of institutional or departmental strategic plans, which was only slightly less frequent than the public disclosure of the assessments of progress towards achieving the goals encompassed in the strategic plan. The public solicitation of fraud complaints—popular, but not employed universally—had not yet been adopted by the Hungarian institutions reviewed. Controls used by institutions in the U.S., Hungary, and the UK are outlined in Table 32.

Table 32: Controls used by institutions to control moral hazards (Source: Own Work, based on Kiraly & Schmidt 2015)

Key Control Point	US	HU	England	Overall Score
Public Facing Strategic Plan (web)	100%	92%	83%	92%
Organizational Learning defined in Strategic Plan	75%	100%	83%	86%
Public Facing Code of Ethics	83%	92%	75%	83%
Whistleblowing as a defined process	67%	42%	83%	64%
Internal Controls as a strategic objective	17%	83%	33%	44%
Public Solicitation of Fraud Complains (web)	83%	0%	50%	44%
Public facing assessment of Achievements (web)	25%	83%	33%	47%
Public Report of Findings (annual)	0%	0%	0%	0%
	56%	61%	55%	58%

Based on the findings outlined in Table 32, no institution addressed all points at all levels of the institution, and some institutions met only a few of the criteria. The scope and size of these institutions led to several institutions where college or component entities had created their own strategic plans but institutional-level plans were not available. In several cases, topics such as whistleblowing were identified in policy statements at the institutional level, and ethics was often embedded in institutional mission statements but transparency and an emphasis on ongoing improvements were rarely identified as a strategic priority.

The research presented here shows that mechanisms to learn from and prevent repetitive fraud, theft, and misconduct does in higher education are not always implemented fully. On the basis of these findings and trends, one must conclude that internal controls require attention, focus, energy, sustained communication, and transparency in order to ensure a healthy institution.

4.4.2 The United Kingdom as a Role Model

In the U.K., the organization and structure of handling whistleblower claims is well developed, but not perfect. As found in the evaluation of individual institutions, not all universities have implemented open, web-based communication tools as best practices may exemplify. However, at the state/national level, the transparency and effort to communicate and administer a well-defined process is clearly visible. There exists a central agency in the U.K., the Higher Education Funding Council for England (HEFCE), which acts as a higher-level destination for issues that are not resolved or addressed within the institution. It should be noted that the legal requirement for a formal escalation process within the institution may be a hindrance or deterrent to reporting of concerns. There is a clearly defined process to communicate for the recipient of the claim to respond to reporters, to notify and inform them of how their claim will be handled, and to explain how they can submit the claim formally.

Communication of and sharing of actual types of fraud and the use of a fraud notification alert system help institutions react more quickly to attempts to defraud similar institutions throughout the state. This includes 37 cases and schemes summarize wrongdoings, including unethical behavior, in addition to several types of fraud and theft that were encountered by institutions and/or through the Public Interest Disclosure (whistleblowing) process. These cases and classes of schemes that are presented to the stakeholders of higher education in the UK via the HEFCE website, among other means, are summarized in Table 33; due to the completeness and best-practice communication, this list of schemes and the narratives provided by the HEFCE is included in its entirety in Appendix B.

Table 33: List of fraud and wrongdoing schemes communicated by HEFCE (Source: Own work based on HEFCE)

	Wrongdoing - Fraud Scheme		
1	Ransomware attacks	20	Funds for foreign students
2	Forged changes to suppliers bank account details	21	Unsupported cash withdrawals
3	Impersonating a university to obtain credit and goods	22	Fake award certificates
4	Tuition fees paid by students to third parties	23	Diversion of payments
5	Collusion to misrepresent travel expenses	24	Application for finance
6	Tuition fee payment using stolen credit cards	25	Theft of cash and cheques
7	Diversion of supplier payments by staff member	26	Misdirected research funds
8	Tuition fee fraud attempt	27	Altered cheques
9	Misappropriation of cash payments for car parking	28	Goods obtained at university's expense then sold on
10	Printing and reprographics - overcharging for service	29	Bogus invoices from an overseas intermediary
11	Conference payment	30	Cloned cheques
12	Payments for services and equipment not delivered	31	Collusion to defraud
13	Payments for equipment not delivered	32	False charges raised and intercepted
14	Fraudulent claim for student finance support	33	Collusive tendering and overcharging for building work
15	Misuse of funds for expenses and overseas travel	34	Bogus research grant
16	Private use of university equipment	35	Telephone account hijacked
17	Theft of cash	36	Irregular payroll payments
18	Use of funds for personal expenditure	37	Embezzlement
19	Consultancy payments		

Source: Higher Education Funding Council of England

The HEFCE has established a threshold for fraud materiality to ensure the state/national level focus is on larger more material issues, which is also an approach that the State of

Massachusetts did not implement, and this is clearly visible in the voluminous number of small theft and loss claims.

4.4.3 Discussion of Findings

The completeness and availability of the processes surrounding the prevention of fraud and organizational learning mechanisms which ensure improvements result from such claims are nearly equally developed and implemented for both the UK and American institutions, with Hungarian institutions being the most developed, on average.

Differences occurred in the absence of public-facing assessment of achievements of strategic goals in the U.S., though such assessment was well adopted in Hungary, and the absence of a web-based complaint solicitation mechanism in Hungary, though this was widely implemented in the US institutions. Only one institution, Corvinus University, did not have an institutional strategic plan publicly available. In the UK, only one-third of the institutions reviewed, the University of Oxford and the University of Bath, had public facing assessments in the UK.

Several Hungarian institutions and the University of Minnesota had no public-facing policy definition of whistleblowing, where the State University of New York (SUNY) and the University of California at Berkeley had exemplary websites and policy statements. Partial statements existed at the University of Michigan, Ohio State University, and the University of Pecs. The UK had a high level of compliance with this metric, with only the University of London not having an institutional presence.

The institutions with internal controls included in their strategic plans were five of the six Hungarian institutions; with the UK and the US having only two institutions each who included this important strategic objective. The Imperial College London and the University of Bath had institutional level strategic plans which detailed this objective. The Ohio State and Florida State Universities, had internal controls contained as a priority in component unit strategic plans, but this was not the case for the entire institution.

Public-facing code of ethics statements were found for all but three institutions. Both the University of London and the University of Michigan did not have a code of ethics for the parent institution, and the code of ethics at the University of Pecs, although not available, was in a process of final approvals.

Public solicitation of fraud claims was most prevalent in both the US and the UK. Five of six institutions having a web-based claim submission mechanism, whereas the University of Minnesota and none of the Hungarian institutions had yet adopted this level of service. In the UK about half of the institutions made this service available through their websites.

None of the institutions reviewed in this research made a public report of the annual findings as a basis for organizational learning, improved prevention, and improved detection.

Organizational learning was outlined in all but three strategic plans: The State University of New York (SUNY) and the University of Michigan made no explicit mention of organizational learning, whereas all Hungarian institutions defined this as a strategic goal. Only Durham University in the UK was missing this key strategic objective.

Concerning the strategic plan and the published assessment of outcomes and achievements, with Hungarian institutions with a high level of completion, and significantly higher than either the UK or US.

Looking at the comparative performance of Institutions in the UK, U.S., and Hungary, I find that four institutions, two in the UK, one in the US and one in Hungary, met 75% of all of the criteria.. Overall, the Hungarian institutions had a slightly higher average fulfillment of the criteria at 61%, compared to the US fulfillment of rate of 56%, and the UK fulfillment rate of 55%, as demonstrated in Table 34.

Table 34: Percentage of criteria met by institutions (Source: Own Work)

Universities analyzed by Country		
Country	University	Overall Score
US	6 Institutions	56%
HU	6 Institutions	61%
England	6 Institutions	55%
Average - All Countries, All Institutions		58%
US	University of Michigan	44%
	Ohio State University	75%
	UC Berkley	63%
	Univ of Minn	38%
	SUNY	50%
	Florida State University	69%
HU	University of Pecs	63%
	Corvinus University	56%
	University of Szeged	50%
	Budapest University of Technology and Econom	75%
	Eötvös Loránd University	63%
	University of Debrecen	63%
England	Univ of Oxford	69%
	Univ of St. Andrews	63%
	University of London (Including LSE)	25%
	Imperial College London	75%
	University of Bath	75%
	Durham University	25%

Source: Author's work

Taking the exploration further, through a comparative study of national practices to identify systems and nations who may be more effective and successful at orchestrating consistent policy and practice directives for improving the institution proved valuable.

Evidence that transparency existed as a moderating variable was identified primarily by the ease of access to key controls via ICT. Evidence that some form of policies and procedures existed to establish and maintain MV1 were also found (MV2). Guidelines or policy directives that encouraged or required institutions to take a structured approach to prevention and proactive learning again were not found (MV3), although the UK had a best practice in the form of sharing. Evidence of all of the Expected Outcomes were identified.

Frameworks inside of universities that guide organizational development via the strategic planning processes were reviewed for evidence of mechanisms that would prevent, identify, and allow the remediation of breaches of fiduciary duty related to the moral hazards of administration. Strategic plans at major UK, Hungarian and American universities were evaluated for key elements that support institutional governance with regards to the prevention of, the identification of, and remediation of moral hazards.

Key Control Point	US	HU	England	Overall Score
Public Facing Strategic Plan (web)	100%	92%	83%	92%
Organizational Learning defined in Strategic Plan	75%	100%	83%	86%
Public Facing Code of Ethics	83%	92%	75%	83%
Whistleblowing as a defined process	67%	42%	83%	64%
Internal Controls as a strategic objective	17%	83%	33%	44%
Public Solicitation of Fraud Complains (web)	83%	0%	50%	44%
Public facing assessment of Achievements (web)	25%	83%	33%	47%
Public Report of Findings (annual)	0%	0%	0%	0%
	56%	61%	55%	58%
Source: Authors work				

Soliciting / Managing / Resolving / Learning

Figure 29: Comparison of International Assessment (Source: Own Work)

With instances of institutions in all countries failing to meet the criteria, as shown in Figure 29, and with a large variation in fulfillment of what I identified as essential key elements in establishing transparency and effective handling of the moral hazards that

administrators face, research indicates that this topic is evolving as some institutions embrace the key elements and others have yet to begin the internal discussion.

In this portion of the research, the discovery of the national site of the United Kingdom Funding Council for Higher Education, revealed a clear best-practice. The UK FCHE maintained an excellent national level policy and communication mechanism to facilitate learning and prevention of wrongdoing and fraud schemes. The salient feature of this agency was their public communication of 38 schemes and cases that were shared via their website to assist in awareness and prevention. Contrasting with this, however, is the inconsistency at the institutional level of implementation identified in the next layer of research, where individual institutions were evaluated for their external, public-facing solicitation and communication of key features.

4.5 Level 4 Findings: Survey of Individual Experiences and Perceptions

It should be noted that the following portion of the research covers a very small sample, 19 individuals responded and none of the governing bodies or large organizations mentioned in the literature review sponsored or supported the distribution of the survey to their membership. It has been considered to be removed from the research, but is included in order to lay a path out that shows how a larger survey may be pursued by a larger organization with a more substantial marketing and research funding.

The survey results' aggregate data findings are discussed below, and in the following section some statistical analysis is performed to describe the variation and aid in the interpretation of the survey results, which are finally summarized in a results and discussion.

4.5.1 Presentation of Findings

Responses (N=19) were received from a diverse population of individuals, institutions, and countries. 37% of the responses were from Hungarian respondents, and 63% were from the United States.   The respondent participation rate was approximately 0.13% of

all invitations sent. The type of institutions attended by the respondents, the respondents' role in the institution, and the component or part of the institution for which the respondents were replying are presented and show a diverse characteristic of the respondents, as shown in Figure 30.
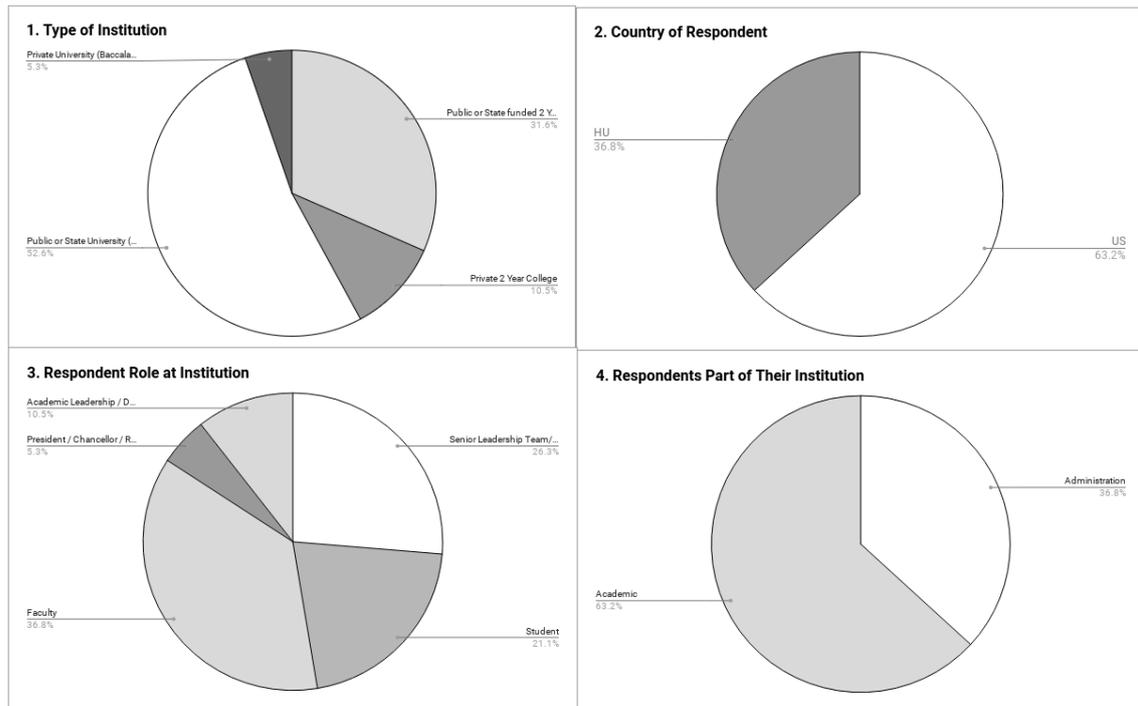
Figure 30: Overview of respondent characteristics (Source: Own Work)

The most frequent type of institution was the public or state university, which made up 53% of all responses, together with 32% of responses from public colleges, making 84% of responses specific to publicly funded institutions, while 16% were private institutions. The most frequent role was faculty, followed by senior administrator, while 11% of the respondents were academic leadership and the remaining 21% were students. Academic areas (students & faculty) were the most prevalent components of the institution covered by the respondents.

The respondents' exposure to fraud and fraud prevention training is described in the next section. A total of 53% of the respondents had experienced some type of wrongdoing in their workplace, and 42% had made some kind of formal report or complaint about such

wrongdoing. A similar proportion of respondents, about 42%, had received any kind of ethics or preventative training, and only 25% of those fractional respondents actually were aware of practical, local-based examples, as illustrated in Figure 31.
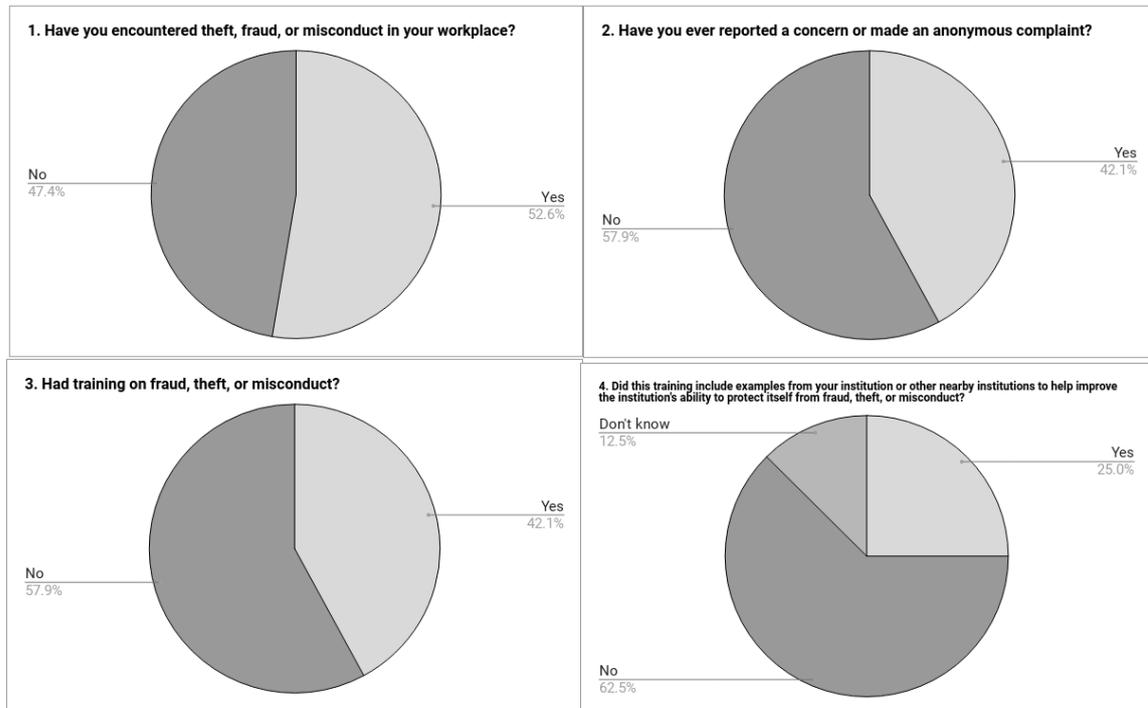
Figure 31: Respondents' experiences with fraud and fraud prevention training (Source: Own Work)

The next set of responses in the survey was specific to the institution, and in four parts, it explored how claims were received by the institution, by which function, and form, and the respondent's perception of claims being tracked to completion or summarized in an annual report. The most frequent response for who in the institution received such claims was "responsibility not assigned" at 37%, with "Don't Know" at 16% and "legal" at 11% the next most frequent. With regards to reporting about claims to the public, 58% of the responses stated that the status of a claim was not reported to the public, and over 79% said their institution did not produce a summary of claims, nor did they track the claims to completion. These responses are illustrated in Figure 32.

1. Who is responsible for receiving and investigating responding to a whistleblower claim?

Public Safety 5.3%
It depends on the claim. 10.5%
Human Resources 5.3%
President's Office 5.3%
Internal Audit 5.3%
Don't know 15.8%
Board Committee /Secretary 5.3%
Legal 10.5%
We do not have this respons... 36.8%

2. How does your institution present and report to the public the status of claims?

I don't know 15.8%
Website 5.3%
Email report 5.3%
Paper report 15.8%
We do not report to the... 57.9%

3. Does your institution track open claims until closure, and include them in the annual report every year until the claims are resolved?

Yes 21.1%
No 78.9%

4. Does your institution publish an annual report of the claims received and outcomes of such claims?

Yes 21.1%
No 78.9%

Figure 32: Institutional process for soliciting and reporting (Source: Own Work)

The next set of charts, presented together in Figure 33, present and visualize the responses to the two Likert scale questions received regarding perceptions of the importance of whistleblowing to their institution (strong tendency towards important) and their impression of the trend of improving or not improving progress at their institution (slightly skewed towards improving).
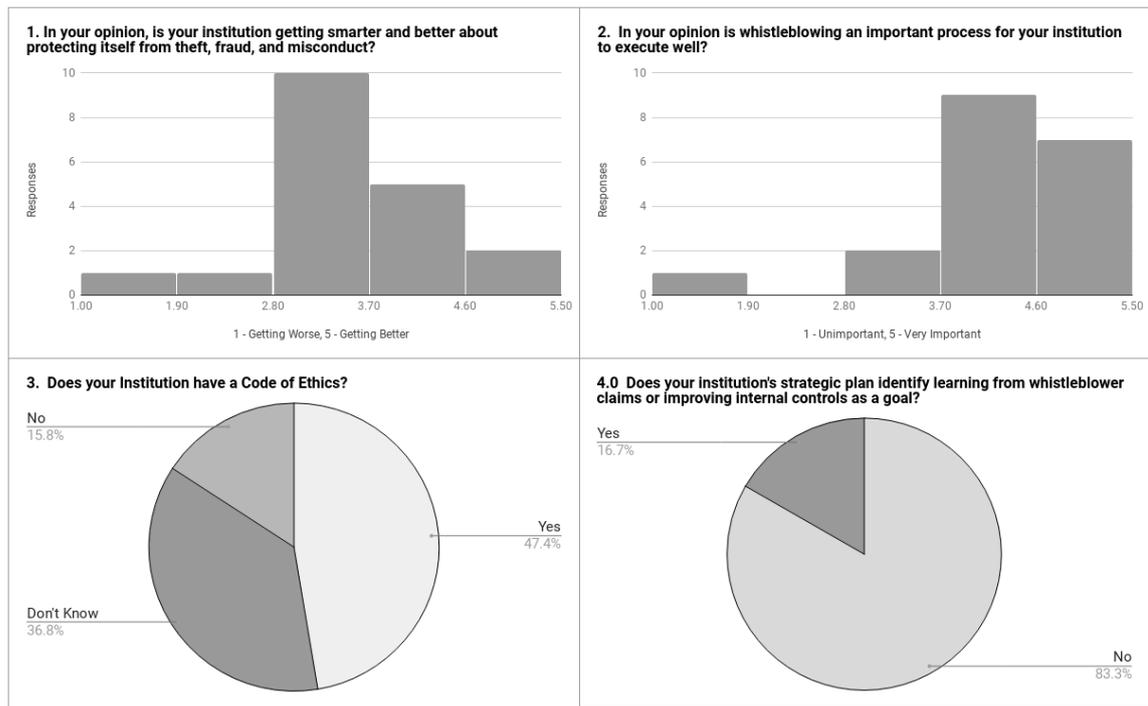
Figure 33: Perceptions of importance and progress towards learning (Source: Own Work)

Additionally, respondents were asked the question of whether a code of ethics was available, with less than half of the respondents able to confirm the existence of a code of ethics, and 83% of respondents stating that learning from whistleblowing was not an element or component of their institution's strategic plan.

4.5.2 Statistical Analysis of Survey Findings

The statistical approach to modelling the two outcomes described in the methodology section: "Experienced Wrongdoing" and "Getting Smarter" was performed and is summarized below. The best statistical formula and regression model was identified for each model is listed below and the simulation results are presented and clarified.

4.5.2.1 Experience Wrongdoing Model

First the simulation and model for the likelihood of an individual experiencing a wrongdoing on campus is modeled and the following 25 models, shown in Table 35, optimized the value of the AICc selection criteria.

Table 35: Top 25 Model Formulas for Experienced Wrongdoing (Source: Own Work)

Model	Formula	AIC	weights
1	ExperienceWrong ~ 1 + Faculty + EthicsCode:University + SeniorLeader:US + Faculty:EthicsCode + Student:HadTraining + Student:Faculty	13.1118	0.0240
2	ExperienceWrong ~ 1 + Faculty + EthicsCode:University + SeniorLeader:US + Faculty:EthicsCode	13.1118	0.0240
3	ExperienceWrong ~ 1 + Faculty + EthicsCode:University + SeniorLeader:US + Faculty:EthicsCode + Faculty:SeniorLeader + Student:HadTraining	13.1118	0.0240
4	ExperienceWrong ~ 1 + Faculty + EthicsCode:University + SeniorLeader:US + Faculty:EthicsCode + Faculty:SeniorLeader + Student:HadTraining + Student:SeniorLeader + Student:Faculty	13.1118	0.0240
5	ExperienceWrong ~ 1 + Faculty + EthicsCode:University + SeniorLeader:US + Faculty:EthicsCode + Student:HadTraining + Student:SeniorLeader + Student:Faculty	13.1118	0.0240
6	ExperienceWrong ~ 1 + Faculty + EthicsCode:University + SeniorLeader:US + Faculty:EthicsCode + Student:Faculty	13.1118	0.0240
7	ExperienceWrong ~ 1 + Faculty + EthicsCode:University + SeniorLeader:US + Faculty:EthicsCode + Student:HadTraining	13.1118	0.0240
8	ExperienceWrong ~ 1 + Faculty + EthicsCode:University + SeniorLeader:US + Faculty:EthicsCode + Faculty:SeniorLeader + Student:HadTraining + Student:Faculty	13.1118	0.0240
9	ExperienceWrong ~ 1 + Faculty + EthicsCode:University + SeniorLeader:US + Faculty:EthicsCode + Student:SeniorLeader	13.1118	0.0240
10	ExperienceWrong ~ 1 + Faculty + EthicsCode:University + SeniorLeader:US + Faculty:EthicsCode + Faculty:SeniorLeader + Student:HadTraining + Student:SeniorLeader	13.1118	0.0240
11	ExperienceWrong ~ 1 + Faculty + EthicsCode:University + SeniorLeader:US + Faculty:EthicsCode + Faculty:SeniorLeader + Student:SeniorLeader	13.1118	0.0240
12	ExperienceWrong ~ 1 + Faculty + EthicsCode:University + SeniorLeader:US + Faculty:EthicsCode + Student:HadTraining + Student:SeniorLeader	13.1118	0.0240
13	ExperienceWrong ~ 1 + Faculty + Student + EthicsCode:University + Faculty:EthicsCode + Student:University + Student:HadTraining	14.9602	0.0095
14	ExperienceWrong ~ 1 + US + Faculty + EthicsCode:University + SeniorLeader:US + Faculty:EthicsCode + Student:HadTraining	15.0135	0.0093
15	ExperienceWrong ~ 1 + US + Faculty + EthicsCode:University + SeniorLeader:US + Faculty:EthicsCode + Student:HadTraining + Student:SeniorLeader	15.0135	0.0093
16	ExperienceWrong ~ 1 + Faculty + EthicsCode:University + SeniorLeader:US + Faculty:University + Faculty:EthicsCode + Student:HadTraining + Student:SeniorLeader	15.0330	0.0092
17	ExperienceWrong ~ 1 + Faculty + EthicsCode:University + SeniorLeader:US + Faculty:University + Faculty:EthicsCode + Student:HadTraining + Student:Faculty	15.0330	0.0092
18	ExperienceWrong ~ 1 + Faculty + EthicsCode:University + SeniorLeader:US + Faculty:University + Faculty:EthicsCode + Student:HadTraining	15.0330	0.0092
19	ExperienceWrong ~ 1 + Faculty + EthicsCode:University + SeniorLeader:US + Faculty:US + Faculty:EthicsCode + Student:HadTraining	15.0330	0.0092
20	ExperienceWrong ~ 1 + University + Faculty + EthicsCode:University + SeniorLeader:US + Faculty:EthicsCode + Student:HadTraining + Student:SeniorLeader	15.0330	0.0092
21	ExperienceWrong ~ 1 + University + Faculty + EthicsCode:University + SeniorLeader:US + Faculty:EthicsCode + Student:HadTraining + Student:Faculty	15.0330	0.0092
22	ExperienceWrong ~ 1 + Faculty + EthicsCode:University + SeniorLeader:US + Faculty:US + Faculty:EthicsCode + Student:HadTraining + Student:SeniorLeader	15.0330	0.0092
23	ExperienceWrong ~ 1 + University + Faculty + EthicsCode:University + SeniorLeader:US + Faculty:EthicsCode + Student:HadTraining + Student:SeniorLeader + Student:Faculty	15.0330	0.0092
24	ExperienceWrong ~ 1 + Faculty + EthicsCode:University + EthicsCode:US + SeniorLeader:US + Faculty:EthicsCode + Student:HadTraining + Student:SeniorLeader	15.0349	0.0092
25	ExperienceWrong ~ 1 + Faculty + EthicsCode:University + EthicsCode:US + SeniorLeader:US + Faculty:EthicsCode + Student:HadTraining + Student:Faculty	15.0349	0.0092

Note that the top 12 models had little or no difference in the absolute scoring, and also that all of the top 12 models used purely the faculty variable combined with several mixed effects factors.
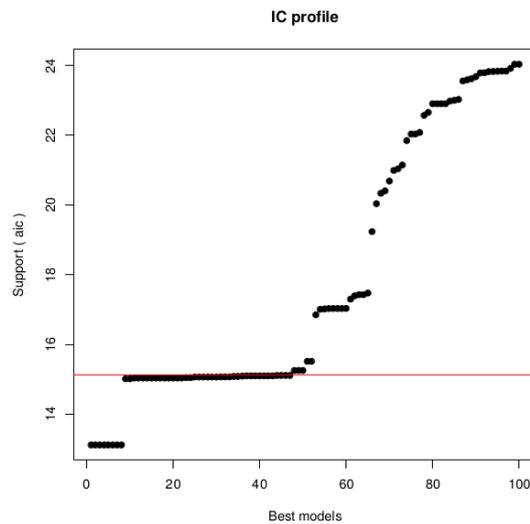
Figure 34: Information Criteria Trend for top 100 models of Experience Wrongdoing (Source: Own Work)

The information criteria plot for the top 100 models calculated is shown in Figure 34, which also shows the stepwise improvements in model accuracy. Looking at the weighting

of the best model, in Table 36 it can be seen that the weights of several of the mixed effect factors were not estimable and therefore offer another simplification of the model.

Table 36: Experienced Wrongdoing Model Quality Statistics R gmulti package (Source: Own Work)

Deviance Residuals					
Min	1Q	Median	3Q	Max	
-0.64103	-0.0256	0.00000	0.00000	0.53846	
Coefficients					Significance Level
	Estimate	Std. Error	t value	Pr(>|t|)	
Intercept	0.6410	0.1542	4.1580	0.000966	0.0001
Faculty	-0.6410	0.2117	-3.0280	0.009041	0.0010
EthicsCode:University	-0.6154	0.1972	-3.1210	0.007516	0.0010
SeniorLeader:US	0.3590	0.1944	1.8460	0.086101	0.1000
Faculty:EthicsCode	0.0108	0.2577	4.1780	0.000929	0.0001
Student:HadTraining			singularity		
Faculty:Student			singularity		
Dispersion parameter for gaussian family taken to be 0.08424908					
Null Deviance: 4.7368 on 18 degrees of freedom					
Residual Deviance: 1.195 on 14 degrees of freedom					
AIC: 13.112					
Number of Fisher Scoring Iterations: 2					

Evaluating the p-value for the factors identified, where the p-value is much less than 0.05, one must reject the null hypothesis that $\beta = 0$, and conclude that there is a significant relationship between the variable and the model. Figure 35 below shows the relative importance of all factors explored in the permutations of simulations, with the red line showing any statistical significance.
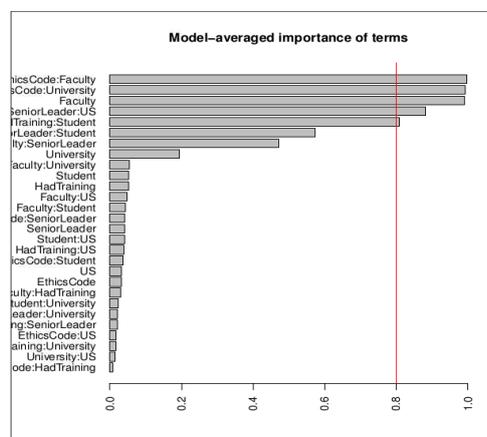
Figure 35: Parameter Significance in Experienced Wrongdoing Model (Source: Own Work)

We see that one additional factor had a low t-value, high p-value, and corresponding low level of confidence (0.1) - which could be removed from the model, giving a further simplification, leaving us with the final model presented in Table 37.

Table 37: Best Fit Model Formula for Experienced Wrongdoing (Source: Own Work)

Best Fit Model Formula for Experienced Wrongdoing
ExperienceWrong ~ 1 + Faculty + EthicsCode:University + Faculty:EthicsCode

The interpretation of these factors and weights follows, that the likelihood of experiencing a wrongdoing is 0.64 (Intercept/Constant Term) which is offset/lowered for faculty members, regardless of origin, and also reduced for Universities which have a Code of Ethics (EthicsCode:University) but increases significantly by the mixed effect of Faculty which have an Code of Ethics (Faculty:EthicsCode)

4.5.2.2 Institution Getting Smarter Model

The simulation and model for perception that the institution is getting smarter about handling whistleblower claims and wrongdoing is modeled and the following 25 models , shown in Table 38, optimized the value of the AICc selection criteria.

Table 38: Top Model Formulas for Getting Smarter (Source: Own Work)

Model	Formula	aic	weights
1	Getting.Smarter ~ 1 + SeniorLeader:University + SeniorLeader:EthicsCode + Student:HadTraining + ExperienceWrong:US + ExperienceWrong:HadTraining + ExperienceWrong:Student	13.58191	0.0401419
2	Getting.Smarter ~ 1 + SeniorLeader:University + SeniorLeader:EthicsCode + Student:HadTraining + Student:SeniorLeader + ExperienceWrong:US + ExperienceWrong:HadTraining + ExperienceWrong:Student	13.58191	0.0401419
3	Getting.Smarter ~ 1 + SeniorLeader:University + SeniorLeader:EthicsCode + ExperienceWrong:US + ExperienceWrong:HadTraining + ExperienceWrong:Student	13.58191	0.0401419
4	Getting.Smarter ~ 1 + SeniorLeader:University + SeniorLeader:EthicsCode + Faculty:SeniorLeader + Student:HadTraining + ExperienceWrong:US + ExperienceWrong:HadTraining + ExperienceWrong:Student	13.58191	0.0401419
5	Getting.Smarter ~ 1 + SeniorLeader:University + SeniorLeader:EthicsCode + Student:HadTraining + Student:Faculty + ExperienceWrong:US + ExperienceWrong:HadTraining + ExperienceWrong:Student	13.58191	0.0401419
6	Getting.Smarter ~ 1 + HadTraining:EthicsCode + SeniorLeader:University + SeniorLeader:EthicsCode + Student:HadTraining + ExperienceWrong:US + ExperienceWrong:HadTraining + ExperienceWrong:Student	15.28619	0.01712062
7	Getting.Smarter ~ 1 + SeniorLeader:University + SeniorLeader:EthicsCode + Student:HadTraining + ExperienceWrong:US + ExperienceWrong:HadTraining + ExperienceWrong:SeniorLeader + ExperienceWrong:Student	15.49614	0.01541452
8	Getting.Smarter ~ 1 + SeniorLeader:University + SeniorLeader:EthicsCode + SeniorLeader:HadTraining + Student:HadTraining + ExperienceWrong:US + ExperienceWrong:HadTraining + ExperienceWrong:Student	15.49614	0.01541452
9	Getting.Smarter ~ 1 + SeniorLeader:University + SeniorLeader:US + SeniorLeader:EthicsCode + Student:HadTraining + ExperienceWrong:US + ExperienceWrong:HadTraining + ExperienceWrong:Student	15.49614	0.01541452
10	Getting.Smarter ~ 1 + SeniorLeader + SeniorLeader:University + SeniorLeader:EthicsCode + Student:HadTraining + ExperienceWrong:US + ExperienceWrong:HadTraining + ExperienceWrong:Student	15.49614	0.01541452
11	Getting.Smarter ~ 1 + SeniorLeader:University + SeniorLeader:EthicsCode + Student:HadTraining + ExperienceWrong:US + ExperienceWrong:HadTraining + ExperienceWrong:Faculty + ExperienceWrong:Student	15.54399	0.01505004
12	Getting.Smarter ~ 1 + SeniorLeader:University + SeniorLeader:EthicsCode + Student:HadTraining + ExperienceWrong:US + ExperienceWrong:EthicsCode + ExperienceWrong:HadTraining + ExperienceWrong:Student	15.54399	0.01505004
13	Getting.Smarter ~ 1 + EthicsCode:US + SeniorLeader:University + SeniorLeader:EthicsCode + Student:HadTraining + ExperienceWrong:US + ExperienceWrong:HadTraining + ExperienceWrong:Student	15.55518	0.01496609
14	Getting.Smarter ~ 1 + SeniorLeader:University + SeniorLeader:EthicsCode + Faculty:HadTraining + Faculty:SeniorLeader + Student:HadTraining + ExperienceWrong:US + ExperienceWrong:HadTraining + ExperienceWrong:Student	15.55518	0.01496609
15	Getting.Smarter ~ 1 + SeniorLeader:University + SeniorLeader:EthicsCode + Faculty:EthicsCode + Student:HadTraining + ExperienceWrong:US + ExperienceWrong:HadTraining + ExperienceWrong:Student	15.55518	0.01496609
16	Getting.Smarter ~ 1 + Faculty + SeniorLeader:University + SeniorLeader:EthicsCode + Student:HadTraining + ExperienceWrong:US + ExperienceWrong:HadTraining + ExperienceWrong:Student	15.55957	0.01493325
17	Getting.Smarter ~ 1 + SeniorLeader:University + SeniorLeader:EthicsCode + Student:HadTraining + ExperienceWrong:University + ExperienceWrong:US + ExperienceWrong:HadTraining + ExperienceWrong:Student	15.58191	0.01476738
18	Getting.Smarter ~ 1 + SeniorLeader:University + SeniorLeader:EthicsCode + ExperienceWrong:University + ExperienceWrong:US + ExperienceWrong:HadTraining + ExperienceWrong:Student	15.58191	0.01476738
19	Getting.Smarter ~ 1 + SeniorLeader:University + SeniorLeader:EthicsCode + Student:HadTraining + Student:Faculty + ExperienceWrong:University + ExperienceWrong:US + ExperienceWrong:HadTraining + ExperienceWrong:Student	15.58191	0.01476738
20	Getting.Smarter ~ 1 + EthicsCode:University + SeniorLeader:University + SeniorLeader:EthicsCode + Student:HadTraining + ExperienceWrong:US + ExperienceWrong:HadTraining + ExperienceWrong:Student	15.58191	0.01476738
21	Getting.Smarter ~ 1 + US:University + SeniorLeader:University + SeniorLeader:EthicsCode + Student:HadTraining + ExperienceWrong:US + ExperienceWrong:HadTraining + ExperienceWrong:Student	15.58191	0.01476738
22	Getting.Smarter ~ 1 + HadTraining + SeniorLeader:University + SeniorLeader:EthicsCode + Faculty:SeniorLeader + Student:HadTraining + ExperienceWrong:US + ExperienceWrong:HadTraining + ExperienceWrong:Student	15.58191	0.01476738
23	Getting.Smarter ~ 1 + EthicsCode:University + SeniorLeader:University + SeniorLeader:EthicsCode + ExperienceWrong:US + ExperienceWrong:HadTraining + ExperienceWrong:Student	15.58191	0.01476738
24	Getting.Smarter ~ 1 + SeniorLeader:University + SeniorLeader:EthicsCode + Student:US + Student:HadTraining + ExperienceWrong:US + ExperienceWrong:HadTraining + ExperienceWrong:Student	15.58191	0.01476738
25	Getting.Smarter ~ 1 + HadTraining:US	15.58191	0.01476738

Note that the top 5 models had little or no difference in the absolute scoring, and also that all of the top 12 models consisted of a constant term and combinations of several mixed effects factors.

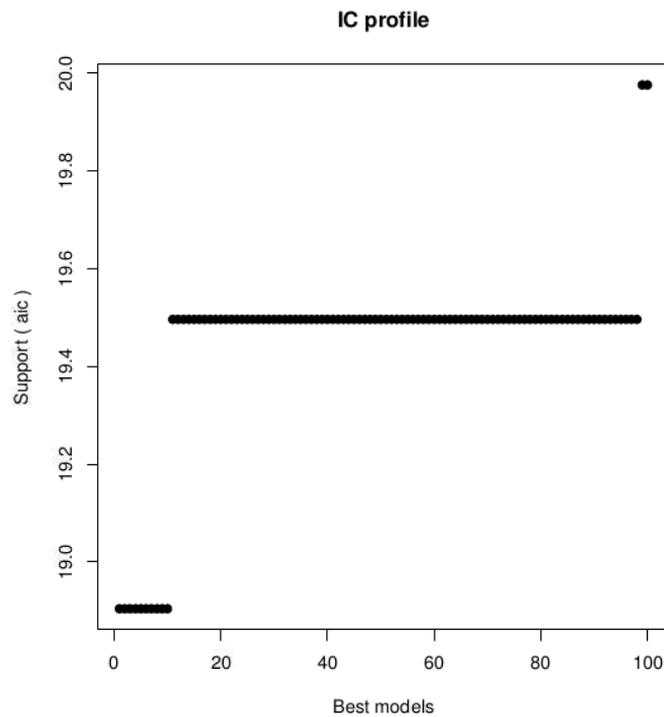**Figure 36: Information Criteria for Getting Smarter Model Selection (Source: Own Work)**

The information criteria plot for the top 100 models calculated is shown in the Figure 36, which also shows the stepwise improvements in model accuracy. The relative lack in variation brings to question the relevance of the model and all possible permutations of the factors included in the dataset. An additional simulations were run without the genetic algorithmic search application to identify possible other outcomes, which resulted in 1.2Million permutations and various model approaches being systematically generated, none of which approached the low level of AICc achieved by the best models calculated by the genetic algorithm approach. Looking at the weighting of the best model shown in Table 39, it can be seen that the weights of one of the mixed effect factors was not estimable and therefore offer another simplification of the model.

Table 39: Getting Smarter Model Quality Statistics R gmulti package (Source: Own Work)

Deviance Residuals					
	Min	1Q	Median	3Q	Max
	-0.50000	-0.05882	0.00000	0.00000	0.58824

Coefficients	Estimate	Std. Error	t value	Pr(>|t|)	Significance Level
Intercept	3.0000	0.09644	31.107	1.36E-13	0.0001
SeniorLeader:University	2.64706	0.37716	7.018	9.09E-06	0.0001
SeniorLeader:EthicsCode	-0.64706	0.22190	-2.916	0.01203	0.0100
Student:HadTraining		singularity			
ExperienceWrong:US	1.82353	0.25193	7.238	6.57E-06	0.0001
HadTraining:ExperienceWrong	-0.76471	0.24308	-3.146	0.00773	0.0010
Student:ExperienceWrong	-1.50000	0.22618	-6.632	1.63E-05	0.0001
Dispersion parameter for gaussian family taken to be 0.08371041					
Null Deviance: 16.1053 on 18 degrees of freedom					
Residual Deviance: 1.0882 on 13 degrees of freedom					
AIC: 13.582					
Number of Fisher Scoring Iterations: 2					

Again, evaluating the p-value for the factors identified, where the p-value is much less than 0.05, one must reject the null hypothesis that $\beta = 0$, and conclude that there is a significant relationship between the variable and the model. The relative importance of all factors explored in the permutations of simulations, are shown in Figure 37, which shows with the red line separation between statistical significance and not.

Figure 37: Factor Importance for all Models for Getting Smarter (Source: Own Work)
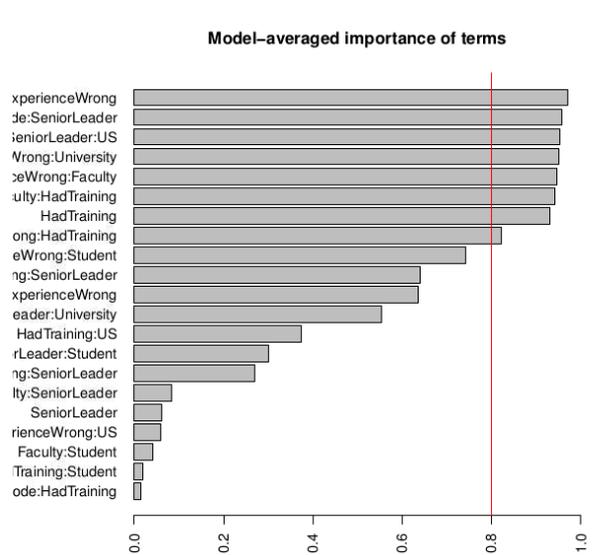
We see that one additional factor had a low t-value, high p-value, and corresponding low level of confidence (0.1) - which could be removed from the model, giving a further simplification, leaving us with the final model shown in Table 40:

Table 40: Best Fit Model Formula for Getting Smarter (Source: Own Work)

Best Fit Model Formula for Getting Smarter
Getting.Smarter ~ 1 + SeniorLeader:University + SeniorLeader:EthicsCode + ExperienceWrong:US + ExperienceWrong:HadTraining + ExperienceWrong:Student

The interpretation of these factors and weights follows. The best model of Getting Smarter score consists of the mean score of 3 (Intercept/Constant Term) and five mixed effects combinations. The first, an improvement factor, increased the score for senior leaders at universities (SeniorLeader:University). The second mixed effects term was an additional improvement for individuals who experienced wrongdoings in the US (ExperienceWrong:US). The third mixed effects term substantially lowered the score for any of the combined factors of SeniorLeader with a Code of Ethics. The fourth factor was the combination of if someone had training and experienced wrongdoing. The fifth term was the combination of students who had experienced wrongdoing, which had a negative impact on the overall score. The absence of the significance of any direct non-mixed effect variables in this model could be interpreted as a sign that institutions are not communicating enough to drive this awareness and perception.

4.5.3 Discussion of Findings

The survey solicited information about the respondents, their experience with wrongdoing, and information about how the institution solicited and communicated complaints, as well as stakeholder perceptions of improvement over time and their institutions effectiveness at learning from claims. Finally, summarizing individual awareness about ethics and a

structured approach to learning from complaints via the strategic planning were both largely incomplete or absent.

The respondent population was from all roles and all types of mainly public institutions, relating to responses from two countries: the United States and Hungary. Two-thirds of the respondents had experienced wrongdoings, while only one-third of respondents had reported wrongdoings. And less than half of the respondents could affirm that their institution had a code of ethics, while only 25% of the respondents were aware of a structured institutional approach to learning from whistleblowing.

In spite of the small number of respondents (N=19), these findings support the hypotheses of the dissertation, specifically that structured learning inside of the organization does not happen in most organizations and that individuals inside of the institution or institutional stakeholders are not aware of the institutional frameworks to support this learning,

The statistical analysis of two key outcomes of the survey: estimating the likelihood of experiencing wrongdoing and also a model for the perception of institutional improvement were developed and presented. The base likelihood of experiencing a wrongdoing of 64% means that people are more likely than not to experience wrongdoing. The absence significance of "having had training" from this model may be a result of the small sample size. Additionally, the survey focused on employees of the institution and may have been widened to include all students, which may have given a higher likelihood for students - given their larger numbers, susceptibility to pressure in their need to complete, among other factors such as mobility, relative time on campus, sophistication, and age. The positive influence of a code of ethics may be an indicator of the environment and likelihood of prosecution of perpetrators. The average response for "Getting Smarter" model of "average or null" can be interpreted that individuals generally are not convinced that their organization is getting better. The improvement for senior leaders at universities and for individuals who experienced wrongdoings in the US could be interpreted as isolated optimism or centralized knowledge of improvements. The negative impact of the

combination of Senior Leader with a Code of Ethics may indicate some pessimism where policy exists and is not enforced. This similar disappointment was shown for individuals who had received training and also experienced wrongdoing and for students who experienced wrongdoing. Again these results may be skewed by the small sample size and small sub-populations.

The perceptions survey showed from a number of perspectives that awareness and knowledge of processes used to manage whistleblower claims could be improved. This phase of the research showed that lack of awareness of any structure or policy surrounding wrongdoings, which individuals had encountered. Improvement in the areas of awareness of concepts such as code of ethics and visibility to institutional efforts to learn and improve from whistleblowing claims would benefit by training and awareness programs that not only inform and educate but also sustain exposure and relevance of the subject over time. Additionally, efforts by management to establish a culture of integrity, as suggested by the research performed by Richards, Melancon, & Ratley (2009) and also by Thomas, Schermerhorn, and Dienart (2004), would improve awareness and, in line with their findings, would lower the overall rate of wrongdoings within the institution.

4.6 Summary of Research Findings

Four components of research were completed and the findings presented and discussed. The findings of the four levels of the research are summarized in Table 41.   This table extracts the findings from each of the levels of the research and provides a means for evaluating these findings at different levels and from different perspectives in order to identify shared or contrasting results that may or may not support the premise of the dissertation and identify mechanisms that contribute to an improved campus environment

Table 41: High-level summary of findings (Source: Own Work)

Findings	
Phase	**Findings**
Field Study (Ohio)	Incidences are rare
	Claims cover several key areas
	Monetary impact varies
	Reputational impact can be substantial, but difficult to measure
	Improvement at institution uncertain
	Usage for operational improvement uncertain
Expanded (CA, MI, MA)	Incidences are rare
	Incidences can be sizeable
	Reputational impact can be substantial, but difficult to measure
	Methods and approaches vary significantly by state
	Improvement at institution uncertain
	Usage for operational improvement uncertain
Multinational (US, UK, HU)	Established key comparison points for external monitoring and assessment
	Comparatively close national scorings
	Each nation had specific strengths and shortcomings
	The UK had a uniquely transparent approach at the national level
	Institutions rarely or never made an effort to report annually to stakeholders
Individual Perceptions	Awareness was very low
	Respondents had experienced Wrongdoings
	Rate of Training Experience was half of Rate of Encountering Wrongdoings

The Ohio field study, the expanded multi-state comparative study, the international comparative analysis, and the survey of individual experiences each contributes to the understanding of the types of claims experienced in the realm of higher education, as well as the processes used at both the state-level and inside the institution to solicit, manage, resolve, and communicate the findings and learnings from whistleblower claims reported to the institutions. Each component of the study revealed different levels of detail and inconsistencies in practices. Inside of Ohio and Massachusetts, legislative and organizational mandates had influences on the types of claims tracked and also the availability of resources to ensure claims were resolved, as well as summarized and communicated for the purpose of learning. The State of California had role model practices in the regard of reporting and summarizing and tracking over multiple years to resolution and making these reports available over the Internet, but that state only tracked and reported a very limited number of high-profile cases, while the state of Michigan had no

processes whatsoever at the state level. The international comparison of the institutional characteristics that are observable from outside showed similarities across countries and it also showed variations between leading institutions in each country regarding the completeness of whistleblowing processes that were found to exist inside of each country. The United Kingdom, at the state/national level, was found to have excellent resources for the communication of wrongdoings to facilitate learning and was certainly a role model at this level, but this did not ensure that all institutions inside of the UK implemented and communicated consistently to their stakeholders. Finally, stakeholders in the US and Hungary were found to be not well informed and institutional processes not well structured or established.

Chapter 5—Summary, Recommendations, and Conclusions

5.1 Summary of Research

The design of the research followed guidance from predecessors that clearly indicated that research into the **recipients** of whistleblower claims was an area to be expanded upon. The emphasis of this research focused on the recipients, the institutions and governing bodies that receive the claims and how they are addressing, responding to, and guiding structured organizational learning to prevent such claims and the damage they can cause to individuals and the institutions.
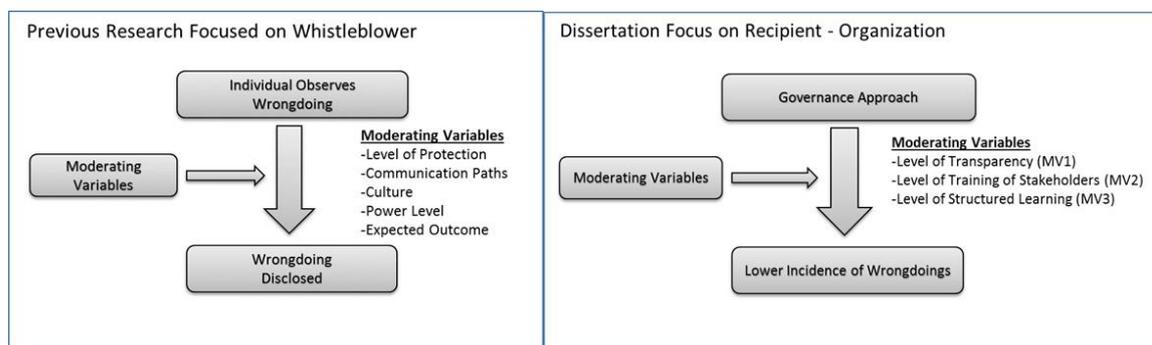
Figure 38: Whistleblowing research focus and aims (Source: Own Work)

Figure 38 contrasts the new perspective of this research in the domain of the study of whistleblower claims with the mainstream existing literature. The majority of this established research focuses on the moderating variables that would affect the likelihood of disclosure of the wrongdoing, as shown in the left panel. In the right panel, the relationship between the governance approach and the reduced rate of incidence of wrongdoings is presented as the focus of this dissertation research and as a contrast from the majority of research into whistleblowing.

This research focused upon the recipients of whistleblower claims inside the sector of higher education. This doctoral research confirmed all six of the hypothesis of the inconsistencies and absence of disciplined organizational learning. These conclusions

from each of the level of this dissertation research are summarized in Figure 39. Each of the levels of analysis found evidence of claims, the ability to categorize them, significant variance in the approaches to governance, undeveloped or non-existent systems to enable organizational learning, benefits of ICT, and specific best practices.

Figure 39: Summary of Outcomes and Findings (Source: Own Work)

	Accept / Reject by Level of Research			
Hypothesis	**Ohio**	**CA, MI, MA**	**US, UK, HU**	**Individuals**
H1 Categorization of actual fraud claims that affect specific areas and activities within institutions	Accept	Accept	Accept	not tested
H2 Internet Communication Technology (ICT) gives a comparatively high level of transparency to claims	Accept	Accept	Accept	not tested
H3 There is substantial variation in the processes and approaches used at the state-level to monitor and solicit claims against institutions that receive state funding.	Accept	Accept	Accept	not tested
H4 Legal and historical frameworks drive variation between jursidictions	Accept	Accept	Accept	not tested
H5 Mechanisms to ensure that learning from whistleblower claims takes place are missing or being developed.	Accept	Accept	Accept	Accept
H6 Best practices can be identified through the exploration and comparison of the relative effectiveness of practices.	Accept	Accept	Accept	not tested

Numerous additional findings were revealed and are labeled here as eleven "unexpected outcomes" of the research. Detailed discussions of the key outcomes emphasize the importance of the research findings and outline a practical path forward for improving management practice and theory. This includes the categorization model for claims, the rubric for the ongoing evaluation of key controls, summary of best practices and additional findings, an introduction of a framework for proactive learning, and a discussion of the governance and management challenges that will certainly persist.

5.1.1 New Findings

This dissertation has revealed and developed the following contributions to the area of Management of Universities and Colleges and Higher Education on the state and national levels, which can also be found to be applicable universally inside of Management Science in all industries and sectors. These contributions are:

- The categorization model of wrongdoings based on collected cases and data;

- The high-level summary of process variations found at all four levels of the investigation findings;

- Identification of Best Practices and "Unexpected Outcomes" as a side-effect of data surveys;

- The framework to "improve organizational learning" using the Soliciting - Managing – Resolving - Learning process.

- Introduced the 3 factor model for the effectiveness of governance approaches on wrongdoing prevention

- Increase awareness of governance inconsistencies at the federal level and within accrediting bodies inside the United States, and resulting policy changes.

- The comparatively low rate of training and awareness compared with the higher rate of the actual experience of wrongdoing, easily remediated through training programs.

These contributions and their consequences for researchers and practitioners are discussed below in detail.

5.1.1 Categorization Model of Actual Claims

The categorization of actual claims was based on the review of claims identified in three US states and the United Kingdom. This categorization allows for focused analysis, which may include frequency and severity, and allow stakeholders to focus resources on understanding frequent or high severity areas. Figure 40 shows the categorizations that evolved from the sequential review of state-level claim activities and compares them to the categories established by Penman & O'Mara (2014) and Menditto & Gordon (2008).

New Categorization	Penman, O'Mara(2014)2	Menditto, Gordon (2008)	Actual Claims (Schmidt)
Academic Affairs Issues		x	x
Accounting, Financial	x	x	
Athletics Issues		x	
Audit	x		
Business Integrity	x		x
Environmental Health and Safety	x	x	
Environmental Health and Safety		x	
Human Resources, Diversity, Workplace Respect	x		x
Information Technology Issues			
Miscellaneous			x
Misuse, Misappropriation of Corporate Assets	x		x
Misuse, Misappropriation of Corporate Assets			
Regulatory Issues			
Research Issues		x	
Student Affairs Issues			x

x - present and applied in specific research

Figure 40: Categorization Model for Whistleblowing Claims in Higher Education (Source: Own Work based on Penman & O'Mara, 2016, Menditto & Gordon, 2008)

Categorization of claims also serves as an abstraction layer, which is important in communicating to stakeholders the nature of a claim without revealing details which may be protected or confidential during the investigation phase, legal proceedings, or even criminal prosecutions. Because any one of these phases may extend over significant time frames, it is important for stakeholders to be aware of issues to be able to learn from them, while preserving confidentiality and integrity. This level of abstraction and categorization can even lead to fully abstracted storytelling in order to further abstract and genericize case details. No institution nor evidence was found in the course of this research which showed an established method for abstracting case details, beyond the destructive processes of redaction and complete withholding from the public domain.

5.1.2 Rubric and Criteria for the Evaluation of the Efficacy of Governance Processes

In the course of the research and in the transition from the analysis of actual claims to the comparative analysis of national practices, a rubric was developed which allowed for the a systematic comparison and evaluation of processes implemented at first the state and

nation levels, but which is also applicable to the institution and any other aggregation level thereof. Both the initial and final rubrics are shown in the Figure 41 and how there is a shift in the categorization and relevance over the evolution of the research.

Evaluation of the Efficacy of Governance Processes				
		Level of Analysis		
Control Point	College	University	State	Nation
1 Solicit and collect whistleblower claims				
2 Log of claims available via public records request				
3 Follow-up and investigation details available via public records request				
4 Reporting of findings available to public				
5 Track issues to resolution and completion (multi-year)				
6 Evidence of learning and improved immunity to internal fraud/theft/misconduct				
7 Estimates of potential loss				
8 Legal authorization or mandate to address management issues				
9 Complainant Persistence				
Nature of Claims and Findings	College	University	State	Nation
8 Volume				
9 Materiality				
10 Subject of Claims				

Figure 41: Rubric and Criteria for Evaluating Governance Processes for Whistleblowing Claims (Source: Own Work)

The details for the reasoning and descriptions behind the control points are provided in Chapter 3. In addition to the evaluation at the institutional and state levels, the questionnaire of individual experiences is a benchmark for evaluating stakeholder experiences. This provides a solid baseline for governing bodies and institutional leadership to measure their current environment and identify areas of action.

5.1.3 Best Practices and Unexpected Outcomes

The review of findings and research notes identified best practices at each level of the doctoral work. Best practices are commonly used as a management tool and establish a performance benchmark for a service or process. Each state or country studied had an area where a unique process or approach provided a role model that could be applied elsewhere to improve the overall effectiveness of governance. These six lessons are condensed together into Table 42 from the details of the research findings.

Table 42: Best Practices Identified (Source: Own Work)

Best Practices
1 Logging claims and making them available to the public and stakeholders, while preserving the anonymity of the claimant (Ohio)
2 Public availability of detail investigation records (Ohio)
3 Legally requiring all institutions to report claims to a central state authority which logged and shared claim log (Massachusetts)
4 Public distribution of Annual Summary Report of all unresolved claims, including unresolved claims from prior years. (California)
5 Public Sharing of Abstracted Claims for Learning and Prevention via Internet (UK)
6 Mandated Institutional Strategic Planning (HU)

These best practices range from legislative and policy initiatives to relatively straightforward communication innovations. Best practices related to sharing case details are the most complicated and resource intensive to implement driven by the requirement to preserve the anonymity of whistleblower and the measures required to abstract and redact. By providing management and governing bodies with a set of case studies and best practices, the decisions related to how to improve and what has been most successfully implemented to date can be made with greater certainty of positive outcomes.

Table 43 consolidates the unexpected outcomes of the research. At the personal and individual level, the high rate of exposure to wrongdoings (U09) combined with the low availability of or awareness of training (U10) of how to handle such situations were alarming. Equally as alarming was the widespread absence of any kind of summary reporting and analysis by governing structures (U07), perhaps a symptom of a compliance-based, reactionary management approach. This was contrasted by each of the best practices which showed some innovation and ability to deliver better practices in the absence of a mandated compliance requirement.

5.1.4 Proactive Learning Framework

The research and conference presentations led to the creation of the policy framework template. The framework shown in Figure 42 summarizes the key facets of infrastructure, processes, and outcomes that would make up a comprehensive institutional approach to learning from whistleblowing. The application of this framework to the institution will be discussed in some detail, followed by a brief interpretation of how the same framework can be applied at the state and national levels of governance and administration.

Table 43: Unexpected Outcomes of the Research (Source: Own Work)

Unexpected Outcomes	
UO1	Monetary / Impact Varies
UO2	Reputational impact can be substantial, but difficult to measure
UO3	Incidences can be sizeable
UO4	Comparatively close national scorings
UO5	Each state and nation had specific strengths and shortcomings
UO6	The UK had a uniquely transparent approach at the national level
UO7	Institutions rarely or never made an effort to report annually to stakeholders
UO8	Individual awareness of any official process was very low
UO9	Individuals had encountered or experienced Wrongdoings
UO10	Individual Rate of Training Experience was half of the Rate of Encountering Wrongdoings
UO11	Policies and communicationis were missing at Dept. of Ed & Accrediting bodies (US)

The components of the framework are shown in three shades to distinguish between processes that were always present, sometimes or inconsistently found and completely absent or missing. Each process step in the figure also contains a label that allows for cross-referencing and identification, with the first letter of the label identifying the part of the core process "Soliciting, Managing, Resolving, and Learning" and a unique number.

Beginning with Soliciting component of the process, step "S1" the key element talks to the validation of the existence of a code of ethics, a mission statement and strategic plan that all identify the priority of continuous learning and improvement in order to lower the

incidence of wrongdoing. The institutional code of ethics should require, support, and protect the reporting of wrongdoing by stakeholders. The strategic plan statement should summarize the institutional goal of sustained learning and disciplines to ensure strong processes. The Whistleblower Claims "S2" themselves need to be solicited and logged in a secure fashion, and in many cases throughout the institution, these claims will also have destinations by type that will require integration and coordination. Criminal wrongdoings for example, may be reported and logged with the law enforcement function, but need to be included in analyses and learning mechanisms. This is supported by web assets "S3" and other ICT products and services that allow for the efficient solicitation, anonymous submission, and protection of identities. These can be provided internally or through one of many commercially available service providers.
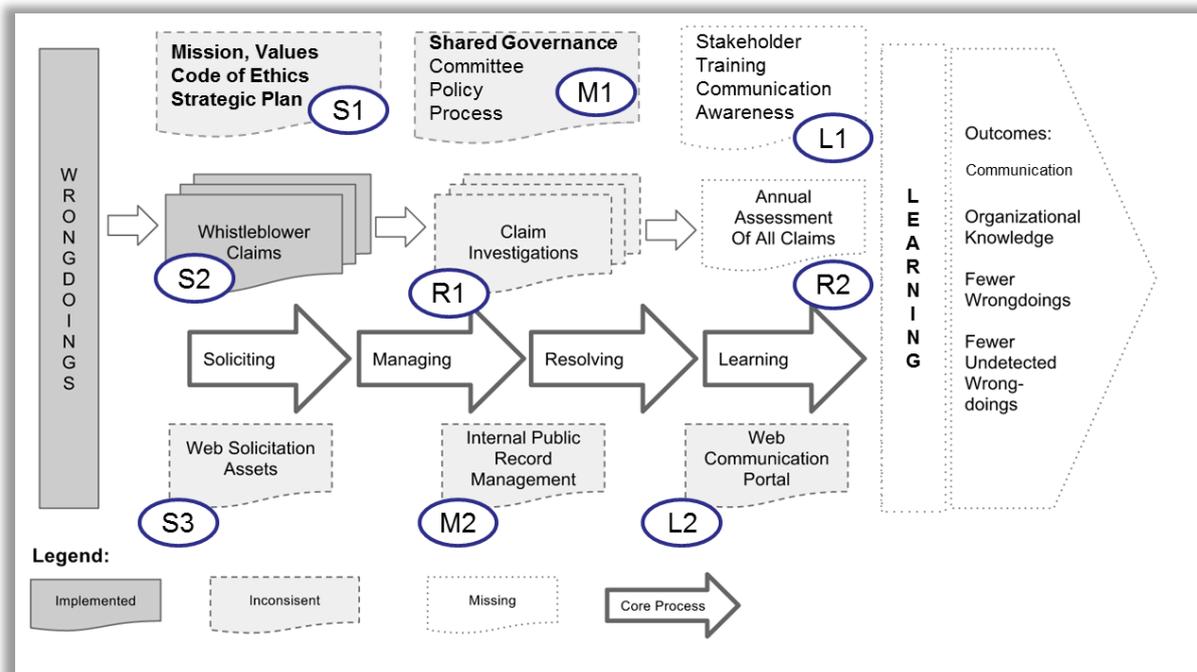
Figure 42: Overview of framework to improve institutional learning from whistleblower claims (Source: Own Work)

Managing claims and governing these processes begins with a committee based approach, labeled here "Shared Governance M1" which would be comprised of a committee of stakeholders – students, faculty, staff, and administration – who are responsible for

establishing and maintaining the policy infrastructure and oversight for these processes. The President or Chancellor as the executive leader of the institution along with the Board of Trustees would need to support and drive the creation of this structure, most likely through an executive or board policy action. The shared governance committee is supported by the infrastructure element for Internal and Public Record Management "M2" which includes three elements: the highly secure internal recordkeeping of complaint and case details, a public facing sterilized and anonymized version for learning and external reporting, and a mechanism to create the latter. The resolution of claims "R1" including the investigation and internal resolution should be the most complete process, and deliberate attention must be placed not to dismiss complaints that, although upon completion of an investigation may be unsubstantiated or incorrect, nevertheless present a learning opportunity for the organization. The creation of an annual report "R2" that summarizes all claim activity and includes an overview of unresolved or open cases from prior years in a way that supports and enables organizational learning, and may include a general policy statement on the importance of learning from the activity encountered in the year. A multi-year analysis of trends and activities should, after an initial spike in awareness, allow for the monitoring and tracking of what should be an overall declining incidence rate trend and reduction in the severity of incidents over time. This annual report would be the foundation of Stakeholder Training and Awareness programs "L1" that would improve the individual awareness serving to help people handle incidents properly, improving the detection rate, and improving their security level. This will also indirectly reduce the overall incident rate if potential perpetrators are aware of a highly trained and sophisticated community. Stakeholder training and awareness initiatives to ensure that individuals are empowered and informed about the risks, benefits, and responsibilities of maintaining an ethical organizational culture. The use of a web portal "L2" for communication of reports, findings, policies, best practices, current issues, would further support the strength of a well-informed community. This infrastructure of web assets and associated technology should manage public record inquiries and host a communications portal to allow self-service navigation of the wealth of information and organizational knowledge that accumulates over time.

The oversight of the implementation and maintenance of the framework will lie with the Board of Trustees, Chancellor, President, and the Shared Governance Committee. The framework provides the set of monitoring tools in the form of the Rubric presented above and the Survey of Individual Experiences.

Although the fruit of research that focused solely on publicly funded institutions of higher education, this framework is equally as applicable to other branches of government and could be incorporated into an open government framework. Additionally, private institutions and for-profit corporations can benefit and enhance their immunity to wrongdoings by employing this approach to improved governance.

5.1.5 Governance and Management Challenges

The institution can implement the framework just described. The state and national levels of administration and governance have slightly different challenges. These slightly different challenges are:

1. Establishing and maintaining a functioning legislative environment, including protections for whistleblowers and also developing organizations that are unable to achieve a high level of effectiveness of their own accord.
2. Facilitating sharing and learning on wider scales, which would require information sharing and responsible diligence in handling case descriptions.
3. Establishing monitoring of effectiveness through a stakeholder committee based structure

5.2 Recommendations for Further Research

Areas for further research should explore the internal learning mechanisms and processes used internal to the institutions via policy survey or other mechanisms for ensuring that issues that are identified are communicated and shared among its stakeholders, to increase awareness and understanding, and to empower individuals and institutions to avoid and overcome, where necessary, the moral hazards of administration.

Additional surveys of state-level processes, canvassing all 50 US states and additional details about the member states of the European Union, would provide a strong contrast and potentially identify additional best practices. This expansion would also benefit by the inclusion of a thorough comparative analysis of the legal frameworks in each jurisdiction.

Expansion of the survey of perceptions and experiences would seem to require an expensive and lengthy person-to-person interview approach, as the return rate of online surveys was very low, and may have been driven by fears of reprisal or backlash and false anonymity. This researcher envisions small teams present on campus using a firm pursuit tactic to ensure a higher level of participation.

A study of Internet Communication Technology and its ability to improve the transparency and effectiveness of governance through incorporation in open government initiatives and the alignment of strategies at both the state and institutional levels may determine best practices and support the theory that increased transparency through the use of ICT improves governance and learning and lowers the rate of wrongdoing.

Many of these research areas would require substantial funding and support by leading national institutions identified previously in Chapter 3 methodology of the dissertation.

5.3 Conclusions

Expanding the scope of study of whistleblowing practices as a critical component of institutional governance, moving the focus beyond the whistleblower, to the institution and how they are using claims to better protect stakeholders and the institution itself has yielded a number of valuable insights and laid the groundwork for improved governance. This research started out as a field study with the exploration of actual whistleblower claims against institutions of higher education, establishing a process and a categorization of claims, and some basic criteria for comparative analysis of administrative processes. The second phase of the research expanded to the comparison of multiple states and more details into both the institutional aspects of governance as well as the comparison of state-

level governing bodies. This phase identified large variation in state-level approaches and confirmed the expected outcome. The third phase of the research, applying and adapting the rubric and key control points identified in the earlier phases to allow a comparison and evaluation of practices in three countries, obtaining more evidence of inconsistencies, the absence of key controls, and additional examples of best practices. Taking the research to the individual and capturing their experiences on campus provided the unexpected findings of the relatively high rate of experiencing wrongdoings and the comparatively low rate of exposure to any training on how to deal with such wrongdoings. These findings provide valuable information about the effectiveness of governance processes and identified clear improvement opportunities that can be readily implemented.

These lessons and rules are also applicable to the governance of all types of organizations, for-profit, nonprofit, and all governmental divisions. The study of the recipient institution's processes for governance and their process for soliciting, managing, and learning from whistleblower claims has a demonstratedly deeply-layered and multi-faceted complexity. This will prove a rich area for both practitioners and researchers to help transition current governance mechanisms from their current focus on the reporter, to a more comprehensive and beneficial framework to reduce the likelihood of wrongdoing within their institution.

Over the course of the research, a number of publications made the research and governance communities aware of the research and introduced them to this new perspective of whistleblowing research. The most prominent and highest level of exposure was through the conference presentation in Washington, D.C. to the American Association of University Professors. It is believed that these communications with the national leaders of governing bodies have successfully caused policy and practice change at the national level inside the US as early as 2017. This has occurred principally through the Office of the Inspector General of the US Department of Education, that through heightened awareness of the governance aspect as recipients of claims, established a national direction via dialogue with Accrediting bodies such as the Higher Learning Commission, which has

resulted in new procedures and policies being adopted. The result of that effort is in part, the HLC passed a new policy on Fraud and Abuse in February of 2017 entitled "Fraud and Abuse FDCR.A20.010" that was passed expeditiously in a single reading. (Higher Learning Commission, 2017)

It is recommended that future practice and research efforts focus on a path of incorporating the rubrics, frameworks, and best practices outlined in this research into standards for socially responsible governance in order to improve the likelihood of structured learning from whistleblower claims in order to proactively protect individuals and the institution from employee fraud, theft, and misconduct.

References

Abbott, L. J., Parker, S., & Peters, G. F. (2010). Serving two masters: Audit committees and internal audit. *Accounting Horizons, 24*(1). 1-24.

Arce, D. G. (2009). Corporate virtue: Treatment of whistleblowers and the punishment of violators. *European Journal of Political Economy, 26((3)*, 363-371.

Argyris, C. & Schön, D. A. (1978), *Organizational learning: A theory of action perspective.* Boston, MA: Addison-Wesley.

Argyris, C. & Schön, D. A. (1996), *Organizational Learning II: Theory, Method, and Practice*, Boston, MA: Addison-Wesley.

Aucoin, J. (2005), *The evolution of American investigative journalism*. Columbia, MO: University of Missouri Press.

Babbie, E. R. (2013), *The Practice of Social Research*. 14th Ed. Boston, MA. Cengage Learning.

Beckhard, R. (1969), *Organization development: Strategies and Models*, Reading, MA: Addison-Wesley.

Bertot, J. C., Jaeger, P. T., & Grimes, J. M. (2010), "Using ICTs to create a culture of transparency: E-government and social media as openness and anti-corruption tools for societies." *Government Information Quarterly, 27*(3), 264-271.

Bhatnagar, S. (2003), *E-government and access to information.* Global Corruption Report 2003. Washington, DC: Transparency International.

Blomenstyk, G. (2013). Accreditor tells Tiffin U. to halt enrollments in online venture. *The Chronicle of Higher Education.* Retrieved from http://chronicle.com/article/Accreditor-Tells-Tiffin-U-to/140829/.

Bosua, R., Milton, S., Dreyfus, S., & Lederman, R. (2014) Going Public: Researching external whistleblowing in a new media age. In Brown et al. (Eds.) International Handbook on Whistleblowing Research (pp. 381-404). Northampton, MA: Edward Elgar.

Bowie, N. E. (1982) *Business Ethics*. Prentice Hall. New York, NY.

Brown, A. J., Lewis, D., Moberly, R., & Vandekerckhove, W. (Eds.). (2014). *International Handbook on Whistleblowing Research*. Northampton, MA: Edward Elgar.

Brown, A.J., Meyer, D.P., Wheeler, C. & Zuckerman J. (2014). Whistleblower support in practice: Towards an integrated research model. In Brown et al. (Eds.) International Handbook on Whistleblowing Research (pp. 457-494). Northampton, MA: Edward Elgar.

Bushman, R. M., Piotrowski, J. D., and Smith, A. J. (2004). "What determines corporate transparency?" *Journal of Accounting Research 42*(2), 207-252.

Calcagno, V., & de Mazancourt, C. (2010). glmulti: an R package for easy automated model selection with (generalized) linear models. Journal of statistical software, *34*(12), 1-29.

Carter, C. J. (2013). Grand jury indicts 35 in Georgia school cheating scandal. Retrieved from http://www.cnn.com/2013/03/29/us/georgia-cheating-scandal/

Cherry, M.A. (2004) Whistling in the Dark – Corporate Fraud, Whistlebowers, and the implications of sarbanes oxley act for employment law. Washington Law Review. 79. 1029-1121. Washington Law Review Association. Seattle, Washington.

Christopher, J. (2014). Internal audit: Does it enhance governance in the Australian public university sector? *Educational Management Administration & Leadership*, October 2014, 1-18.

Churchill, G. A. (1995). *Marketing research: Methodological foundations*. 6th ed. Orlando, FL: Dryden.

Ciborra, C. (2005). "Interpreting e-government and development: Efficiency, transparency or governance at a distance?" *Information Technology and People*, *18*(3), 260-279.

Claire, A. (2009). Audit and compliance: Understanding the difference. *College & University Auditor, 52*(3). 21-22.

Copas, J.B. (1993) The Shrinkage of Point Scoring Methods. *Journal of the Royal Statistical Society*. *42*(2). 315-331. Wiley.

Council for the Advancement of Standards. (2006). CAS Statement of Shared Ethical Principles. *CAS Professional Standards for Higher Education* (sixth ed.), Washington, DC.

Coupland, D. (1993). The internal auditor's role in public service orientation. *Managerial Auditing Journal*, *8*(1): 3-23.

Curtis, M. B. (2006). Whistleblower mechanisms: A study of the perceptions of users and responders. The Institute of Internal Auditors. Dallas, TX: The IIA Research Foundation.

De Burgh, H. (2008). *Investigative journalism*. New York, NY: Routledge.

Devine, T. & Maassarani, T.F. (2011) *The Corporate Whistleblower's Survival Guide: A Handbook for Committing the Truth.* Berrett-Koehler Publishers. Government Accountability Project. Washington, D.C.

De Terwange, C. (2011). "Internet Privacy and the Right to Be Forgotten/Right to Oblivion". Revista de los Estudios de Derecho y Ciencia Política de la UOC. 13(I). 109-121. Retrieved from http://www.crid.be/pdf/public/7064.pdf.

Dobrai, K., & Farkas, F. (2008). Knowledge-based services: Examining knowledge processes in public-serving nonprofit organizations. *International Journal of Knowledge, Culture, and Change Management, 8*(2), 9-21.

Doyle, J. T., Ge, W., & McVay, S. (2005) "Determinants of weaknesses in internal control over financial reporting and the implications for earnings quality." *Journal of Accounting and Economics, 44*(1), 193-223.

Dworkin, T.M. & Brown, A.J. (2013). The Money or the Media? Lessons from Contrasting Developments in US and Australian Whistleblowing Laws'. *Seattle Journal of Social Justice*. 11(2). 653-713.

Eaton, T. V., & Akers, M. D. (2007). Whistleblowing and good governance. *The CPA Journal*, *77*(6), 66.

Elliston, F. A. (1982), "Anonymity and whistleblowing." *Journal of Business Ethics*, *1*(3), 167-177.

Escoffery, R.M. & Bauer, J.G. (2012) "Manage Your Online Reputation—or Someone Else Will". *Aesthetic Surgeons Journal*. 32 (5): 649-652. DOI: 10.1177/1090820X12448795.

Ethics & Compliance Initiative. (2016). Global business ethics survey: Measuring risk and promoting workplace integrity. Retrieved from http://www.ethics.org.

Ewing, J. (2017) Faster, Higher, Farther: The Volkswagen Scandal. W.W. Norton & Co. New York, NY. Pg. 160.

Farkas, F., and Dobrai, K. (2012). "Knowledge profile of higher education institutions: An international overview of mainstream research." *International Journal of Management in Education, 6*(1-2), 120-136.

Fasterling, B. (2014) Whistleblower protection: A comparative law perspective in Brown et al. (Eds.) *International Handbook on Whistleblowing Research* (pp. 331-349). Northampton, MA: Edward Elgar.

Fasterling, B., & Lewis, D. (2014). Leaks, legislation and freedom of speech: How can the law effectively promote public- interest whistleblowing? *International Labour Review*, *153*(1), 71-92.

Faunce, T, Crow, K., Nikolic, T., & Morgan, F.M.. (2014) Because they have evidence: Globalizing financial incentives for corporate fraud whistleblowers in Brown et al. (Eds.) *International Handbook on Whistleblowing Research* (pp. 381-404). Northampton, MA: Edward Elgar.

Federal Bureau of Investigations. (2014). Investigating student aid fraud. Retrieved from http://www.fbi.gov/news/stories/2014/may/investigating-student-aid-fraud/investigating-student-aid-fraud.

Fisher, M. (2007). Central State University: What happened?—Financial crisis in Central State University, Ohio. *Diverse: Issues in Higher Education.* Retrieved from http://diverseeducation.com

Flint, D. J., Woodruff, R. B., & Gardial, S. F. (2002). Exploring the phenomenon of customers' desired value change in a business-to-business context. *Journal of Marketing*, *66*(4), 102-117.

Gerber, L. G. (2001). "Inextricably linked": Shared governance and academic freedom. Academe, *87*(3), 22.

Gibson, O., & Gayle, D. (2015, May 27) Fifa Officials arrested on corruption charges as World Cup inquiry launched. *The Guardian.* London, England.

Gould, D. J., & Amaro-Reyes, J. A. (1983). The effects of corruption on administrative performance. *World Bank Staff Working Paper*, *580*, 2514.

Grant Thornton. (2015). *The State of Higher Education in 2015* (4th ed.). Grant Thornton LLP. Retrieved from www.grantthornton.com/highered2015 on June 5th, 2016.

Gummesson, E. (2000). *Quantitative Methods in Management Research.* Thousand Oaks, CA. Sage Publications.

Hamid, M.H. & Zainudin, N. (2015) Whistleblowing: an organizational support perspective. *International Journal of Management Research & Review*. 5(7). 479-487.

Harris, H. (2013), "Moral courage in organizations: Doing the right thing at work." *Business Ethics Quarterly*, *23*(1), 147-150.

Hassink, H., de Vries, M., Bollen, L. (2007). A Content Analysis of Whisteblowing Policies of Leading European Companies. *Journal of Business Ethics*. *75*(1). 25-44.

Hermalin, B. E., and Weisbach, M. S. (2007), *Transparency and corporate governance* (No. w12875). National Bureau of Economic Research Working Paper

Higher Learning Commission. (2012). *Policy Book*. Retrieved from http://policy.hlcommission.org/Policies/appendix-a.html on Aug. 20, 2015.

Higher Learning Commission. (2017). "Fraud and Abuse FDCR.A20.010". Retrieved from http://download.hlcommission.org/policy/updates/AdoptedPolicyFraudAbuse_2017-02_POL.pdf

Hillman, N. W., Tandberg, D. A., & Fryar, A. H. (2015). Evaluating the impacts of "new" performance funding in higher education. *Educational Evaluation and Policy Analysis*. doi: 0162373714560224

Higher Education Funding Council for England. (n.d.). Retrieved from http://www.hefce.ac.uk/

Hofstede, G., Hofstede, G.J., Minkov, M. (2010) *Cultures and Organizations: Software of the Mind.* New York. McGraw-Hill.

Houston, B. (2010). The future of investigative journalism. *Daedalus*, *139*(2), 45-56.

Institute of Management Accountants. (2016) IMA Statement of ethical professional practice. Montvale, NJ. Retrieved from http://www.imanet.org/docs/default-source/generalpdfs/statement-of-ethics_web.pdf?sfvrsn=2

Karoliny, Z., Farkas, F., & Poór, J. (2009). In focus: Hungarian and Central Eastern European characteristics of human resource management: An international comparative survey. *Journal for East European Management Studies*, *14*, 9-47.

KEHI (2015). Retrieved from http://kehi.kormany.hu/kereses#category=all&search=egyetem

King, G., Murray, C. J., Salomon, J. A., & Tandon, A. (2004). Enhancing the validity and cross-cultural comparability of measurement in survey research. *American Political Science Review*, *98*(01), 191-207.

Kirchgaessner, S. (2017, Nov 19) "'More pigs will be revealed':Asia Argento on life after accusing Weinstein of rape. *The Guardian*. London, England.

Koczó, I. (2011). The decades top 30 management scandals - Az évtized top 30 magyar botránya, *Manager Magazin*, 2010 December – 2011 January. Retrieved from http://www.vg.hu/manager-magazin/az-evtized-top-30-magyar-botranya-348132

Kováts, G. (2009). The University as an Organization - Az egyetem mint szervezet. Drótos, Gy.- Kováts, G. (szerk): *Felsőoktatás-menedzsment*, Budapest, Aula Kiadó, 63-86.

Landman, T. (2008) *Issues and Methods in Comparative Studies: An Introduction*. 3rd Ed. Oxon, UK. Routledge.

Lawson, R. (2015). Solving the whistleblower's dilemma. *IMA Pulse* 29 Institute of Management Accountants. Montvale, NJ.

Levitt, B., & March, J. G. (1988). Organizational Learning. *Annual review of sociology*. *14*(1), 319-338.

Levitt, S. D., & Dubner, S. J. (2005). *Freakonomics*. New York: William Morrow.

Lewis, D., Devine, T, & Harpur, P. (2014) The key to protection: civil and employment law remedies in Brown et al. (Eds.) *International Handbook on Whistleblowing Research* (pp. 350-380). Northampton, MA: Edward Elgar.

Leys, J., Vandekerckhove, W. (2014) Whistleblowing duties in Brown et al. (Eds.) *International Handbook on Whistleblowing Research* (pp. 115-132). Northampton, MA: Edward Elgar.

Lieberson, S. (1991) Small N's and Big Conclusions: An Examination of the Reasoning in Comparative Studies Based on a Small Number of Cases. *Social Forces*. Oxford University Press. Oxford, UK. *70*(2), 307-320.

Lor, P. (2012) *International and Comparative Librarianship*. K. G. Saur Verlag GmbH, Munich, Germany. 125-146.

March, J.G. (1991). "Exploration and exploitation in organizational learning". *Organization Science*. *2*(1), 71-87.

Marquet, C.T. (2011). Embezzlement epidemic. *University Business*, *14*(7), 89-94

Mattie, J. A. Hanley, P. F., Cassidy, D. L., Broad, M.C.. (2005). *Internal controls: The key to accountability*. London, U.K.: Price Waterhouse Coopers.

McKenna, C., et al. (2013). Hungary: New whistleblowing law. Retrieved from http://www.lexology.com/library/detail.aspx?g=482b2d89-a20f-411b-80e1-aa2fb910c569

McMillen, K. N. (2014). *Ivory tower whistleblowers and hotlines: Higher education institutions' (HEI) voluntary implementation of NACUBO recommended Sarbanes-Oxley (SOX) Act of 2002 whistleblowing best practices provisions: A web-based survey instrument and exploratory research to determine HEI level of implementation, expectations, effects and barriers* (Unpublished doctoral dissertation). Auburn University, Auburn, AL.

McNabb, D.E. (2017) *Research Methods in Public Administration and Nonprofit Management*. 4th Ed. Oxford, UK. Routledge – Taylor & Francis.

Menditto, S., & Gordon, T. (2008). Finances in the clear: Six years out from Sarbanes-Oxley, see how NACUBO member institutions have adapted audit-related practices to meet the goal of fiscal transparency. *Business Officer*, *42* (1/2), 38.

Mesmer-Magnus, J.R., Viswesvaran, C. (2005) Whistleblowing in Organizations: An Examination of Correlates of Whistleblowing Intentions, Actions, and Retaliation. *Journal of Business Ethics. 62*(3). 277-297.

Mezey, B. (2014). The questions of scientific responsibility in Hungarian higher education. Ethical regulation of university and academic life - university codes -"A tudományetikai felelősség kérdései a magyar felsőoktatásban. Az egyetemi és a tudományos élet etikai szabályozása – az egyetemi kódexek." *Magyar Tudomány*, *14*(6). Retrieved from http://www.matud.iif.hu/2014/06/04.htm

Miceli, M. P., & Near, J. P. (1994). Relationships among value congruence, perceived victimization, and retaliation against whistle-blowers. *Journal of Management*, *20*(4), 773-794.

Miceli, M. P., & Near, J. P. (2013). An international comparison of the incidence of public sector whistle- blowing and the prediction of retaliation: Australia, Norway, and the U.S. *Australian Journal of Public Administration*, *72*(4), 433-446.

Miceli, M.P., Dreyfus, S., Near, J.P.. (2014) "Outsider 'whistleblowers': conceptualizing and distinguishing ' bell-ringing' behavior in Brown et al. (Eds.) *International Handbook on Whistleblowing Research* (pp. 71-94). Northampton, MA: Edward Elgar.

Mitchell, J. (2014). Remedial courses in college stir questions over cost, effectiveness. *The Wall Street Journal*. Retrieved from http://online.wsj.com/articles/remedial-courses-in-college-stir-questions-over-cost-effectiveness-1416243572

Moberly, R. E. (2008). Unfulfilled expectations: An empirical analysis of why Sarbanes-Oxley whistleblowers rarely win. *William & Mary Legal Review*. 49. 65. Williamsburg, Virginia.

Moberly, R., (2014). "To persons or organizations that may be able to effect action": Whistleblowing recipients in Brown et al. (Eds.) *International Handbook on Whistleblowing Research* (pp. 273-299). Northampton, MA: Edward Elgar.

Moberly, R. & Wylie, L.E. (2011). An Empirical Study of Whistleblower Policies in United States Corporate Codes of Ethics' in Lewis and Vandekerckhove (eds) *Whistleblowing and Democratic Values*. London. International Whistleblowing Research Network. 27-55.

Motley, A. (2016, August). "NACUBO: Do the Right Thing". *Business Officer Magazine.* National Association of College and University Business Officers. Washington, D.C.

Morehead Dworkin, T. (2014). Foreword in Brown et al. (Eds.) *International Handbook on Whistleblowing Research* (pp. xix-xxiii). Northampton, MA: Edward Elgar.

MTA. (2010). Retrieved from http://mta.hu/cikkek/akademiai-szabalyozasok-119791

Nader, R., Petkas, P. J., and Blackwell, K. (1972), *Whistle blowing: The report of the conference on professional responsibility*. New York: Grossman.

Naftall, T. (2017, June 9) Comey is the opposite of J. Edgar Hoover. CNN. Retrieved from http://edition.cnn.com/2017/06/08/opinions/comey-whistleblower-opinion-faftall/index.html on 10/20/2017.

National Whistleblowers Center. (2014). Big win for corporate whistleblowers at Supreme Court. Retrieved from http://www.whistleblowers.org/index.php?option=com_content&task=view&id=1519&Itemid=241

Near, J. P., & Miceli, M. P. (1985). Organizational dissidence: The case of whistle-blowing. *Journal of Business Ethics*, *4*(1), 1-16.

Near, J. P., & Miceli, M. P. (1986). Retaliation against whistle blowers: Predictors and effects. *Journal of Applied Psychology*, *71*(1), 137.

Near, J. P., & Miceli, M. P. (1992) *Blowing the whistle: The organizational and legal implications for companies and employees*. New York, NY: Lexington Books.

Near, J. P., & Miceli, M. P. (1996). Whistle-blowing: Myth and reality. *Journal of Management*, *22*(3), 507-526.

New York Post. (2011). Tressel quits Ohio State amid embarrassing tattoo scandal.

New York Times. (2016, April 4). What are the Panama Papers?

Northwestern v. CAPA US—National Labor Relations Board. Case 13-RC-121359 July 2014

Olsen, J., (2014) Reporting versus inaction: How much is there, what explains the differences and what to measure in Brown et al. (Eds.) *International Handbook on Whistleblowing Research* (pp. 177-206). Northampton, MA: Edward Elgar.

O'Neill, Paul. (2002, November 4). Values into action. *HBS Working Knowledge*. Boston, MA. Retrieved from http://hbswk.hbs.edu/archive/3159.html

Orban, K. (2017, Nov 10) ELTE faculty dean dismissed for sexual misconduct. *Budapest Beacon*. Budapest, Hungary.

Penman, C. & O'Mara, E. (2016). 2016 Ethics & Compliance Hotline Benchmark Report. Lake Oswego, OR: Navex Global.

Peters, I. (2014). "Whistleblowing: why internal audit is key". *Audit & Risk*. Chartered Institute of Internal Auditors. Retrieved from http://auditandrisk.org.uk/blog/whistleblowing-why-internal-audit-is-key_4153

Piotrowski, S. J. (2007), *Governmental transparency in the path of administrative reform.* New York: SUNY Press.

Price, A. R. (1998), "Anonymity and pseudonymity in whistleblowing to the US Office of Research Integrity." *Academic Medicine*, *73*(5), 467-72.

Proviti, Inc. (2008). *Internal Auditing in Higher Education*. Retrieved from http://www.protiviti.com/en-US/Documents/Resource-Guides/ia_higher_education.pdf

R Development Core Team (2009). R: A Language and Environment for Statistical Computing. R Foundation for Statistical Computing, Vienna, Austria. ISBN 3-900051-07-0, URL http://www.R-project.org/.Christopher, J. (2014), "Internal audit: Does it enhance governance in the Australian public university sector?" *Educational Management Administration and Leadership*, *43*(6), 1-18.

Rapp, G.C. (2007) Beyond protection: invigorating incentives for Sarbanes-Oxley corporate and securities fraud whistleblowers. Boston University Law Review. 87(91). Pp. 91-156. Boston, Massachusetts.

Ratley, J. D.. (2014) *Report to Nations on Occupational Fraud and Abuse*. Association of Certified Fraud Examiners.

Redmond, L. (2015, Dec 22) "Former UML bookkeeper allegedly stole more than $200,000 from recreation center". Lowell Sun. Lowell, Massachusetts. Retrieved from: http://www.lowellsun.com/breakingnews/ci_29298469/former-uml-bookkeeper-allegedly-stole-more-than-200#ixzz4obassKi5 on Oct 5, 2016.

Relly, J. E., and Sabharwal, M. (2009). Perceptions of transparency of government policymaking: A cross-national study. *Government Information Quarterly*, *26*(1), 148-157.

Rhoades, G. (2005). Capitalism, Academic Style, and Shared Governance. Academe, 91(3), 38-42.

Richards, D., Melancon, B., & Ratley, J. (2009). *Managing the business risk of fraud: A practical guide*. The Institute of Internal Auditors (IIA), The American Institute of Certified Public Accountants (AICPA), Association of Certified Fraud Examiners (ACFE).

Roberts, P. (2008). Evaluating Agency Responses: The Comprehensiveness and Impact of Whistleblowing Procedures in Brown(Ed) *Whistleblowing in the Australian Public Sector: Enhancing the Theory and Practice of Internal Witness Management in Public Sector Organisations*. Canberra. ANU E-Press. 233-260.

Roberts, P. (2014) Motivations for Whistleblowing: persona, Private, and Public Interests. In Brown et al. (Eds.) *International Handbook on Whistleblowing Research* (pp. 207-229). Northampton, MA: Edward Elgar.

Roberts, P., Brown, A.J., & Olsen, J. (2011). *Whistling While They Work: A Good Practice Guide for Managing Internal Reporting of Wrongdoing in Public Sector Organisations*. Canberra. ANU E-Press. Retrieved from httpp://epres.anu.edu.au/whistling_citation_html on 5/20/2016.

Rothschild, J., and Miethe, T. D. (1994), Whistleblowing as resistance in modern work organizations: The politics of revealing organizational deception and abuse. *Resistance and power in organizations* (pp. 252-273), Jermier, J., Nord, W., & Knights, D. (Eds.). London, U.K.: Routledge.

Rutherford, A., & Rabovsky, T. (2014). Evaluating impacts of performance funding policies on student outcomes in higher education. *The Annals of the American Academy of Political and Social Science*, *655*(1), 185-208.

Schmidt, C. R. (2005). The driver's view. *Internal Auditor, 2005*(6), 29-32.

Schmidt, C. R. (2015). Learning points from whistleblower claims against institutions of higher education: The case of Ohio. *Problems of Management in the 21st Century*, *10*(2)*,* 110-120*.*

Schmidt, C. R. (2016). State-level mechanisms for learning from whistleblowing cases involving institutions of higher education in the United States. *Problems of Management in the 21st Century, 11*(1) 43-56.

Schmidt, C. R., & Farkas, F. (2015) Anonymous reporting "whistleblowing" as a mechanism to improve institutions of higher education: The case of Ohio. *Almaty Conference Proceedings.* Paper presented at International Conference on Multidisciplinary Innovation in Academic Research (MIAR), Hotel Kazakhstan, Almaty, 29-30 July (7-12).

Schmidt, C. R., & Kiraly, A. (2015) Commonalities between U.S. and Hungarian universities with regards to organizational development and controls against the moral hazards of administration. *Hungarian Journal of Marketing and Management 2015*(4), 79-89.

Schwartz, S.H. & Bardi, A. (2001). Value Hierarchies across Cultures: Taking a Similarities Perspective. *Journal of Cross-Cultural Psychology*. 32(3). 268-290.

Sciascia, S., & Mazzola, P. (2008). Family involvement in ownership and management: Exploring nonlinear effects on performance. *Family Business Review*, *21*(4), 331-345.

Shim, D. C., & Eom, T. H. (2009). Anticorruption effects of information communication and technology (ICT) and social capital. *International Review of Administrative Sciences*, *75*(1), 99-116.

Sisaye, S. (1998). An overview of the social and behavioral sciences approaches in management control research. *Behavioral Research in Accounting*, *10*(1), 11-26.

Skivenes, M., & Trygdstad, S., (2014) Wrongdoing: Definitions, identification and categorizations in Brown et al. (Eds.) *International Handbook on Whistleblowing Research* (pp. 95-114). Northampton, MA: Edward Elgar.

Smith, R. (2014) Whistleblowers and Suffering. In Brown et al. (Eds.) *International Handbook on Whistleblowing Research*. (pp. 230-249) Northampton, MA: Edward Elgar.

Solheim, C & Henning, K. (1998) "Managing your corporate reputation: Strategies for the internet". *Journal of Communication Management.* *3*(2), 157-167. DOI: 10.1108/eb023491

Spencer, M. & Spencer, J. (2014) When it all goes bad: Criminal remedies Skivenes, M., & Trygdstad, S., (2014) Wrongdoing: Definitions, identification and categorizations in Brown et al. (Eds.) *International Handbook on Whistleblowing Research* (pp. 405-429). Northampton, MA: Edward Elgar.

Suddeutsche Zeitung (2017, November 6) These are the Paradise Papers - Das sind die Paradise Papers.

Tandberg, D. A., & Hillman, N. W. (2014). State higher education performance funding: Data, outcomes, and policy implications. *Journal of Education Finance*, *39*(3), 222-243.

Teo, H., & Casperz, D. (2011). "Dissenting discourse: Exploring alternatives to the whistleblowing/silence dichotomy" *Journal of Business Ethics*, *104*(1), 237-249.

Thomas, T., Schermerhorn, J. R., & Dienhart, J. W. (2004). Strategic leadership of ethical behavior in business. *The Academy of Management Executive*, *18*(2), 56-66.

Tsahridu, E. (2011) Whistleblowing Management is Risk Management in Lewis and Vandekerckhove (Eds.) *Whistleblowing and Democratic Values.* London. International Whistleblowing Research Network. 56-69.

Vaishnavi, V. (2014) The importance of hiring "A-players." *Forbes*, 23 November.

Vandekerckhove, W. (2006). Whistleblowing and organizational social responsibility: A global assessment. Hampshire, U.K.: Ashgate Publishing Ltd.

Vandekerckhove, W. & Lewis, D.B. (2012). The Content of Whistleblowing Procedures: A Critical Review of Recent Official Guidelines. *Journal of Business Ethics. 108*(2). 253-264.

Vandekerckhove, W. & Tsahuridu, E. (2010). Risky Rescues and the Duty to Blow the Whistle. *Journal of Business Ethics. 97*(3). 365-380.

Vandekerckhove, W., Brown, A. J., and Tsahuridu, E. (2014) Managerial responsiveness to whistleblowing: Expanding the research horizon in Brown et al. (Eds.) *International Handbook on Whistleblowing Research* (pp. 298-328). Northampton, MA: Edward Elgar.

Vandekerckhove, W., Uys, T., Rehg, M., and Brown, A.J. (2014) Understandings of whistleblowing: Dilemmas of societal culture in Brown et al. (Eds.) *International Handbook on Whistleblowing Research* (pp. 37-70). Northampton, MA: Edward Elgar.

Viechtbauer, W. (2010). Conducting meta-analyses in R with the metafor package. Journal of Statistical Software. *36*(3). 1–48.

Weissman, J. (2014) *The decline of newspapers hits a stunning milestone.* Slate.com/Moneybox. Retrieved from http://www.slate.com/blogs/moneybox/2014/04/28/decline_of_newspapers_hits_a_miles tone_print_revenue_is_lowest_since_1950.html

Wright State University. (2011). Audited financial statements for the year ending 6/30/2011. Retrieved from https://ohioauditor.gov/auditsearch/.

Wulczyn, F.D., Daro, J., Fluke, S. Felman, C, Glodek and K. Lifanda. (2010) *Adapting a Systems Approach to Child Protection: Key Concepts and Considerations.* United Nations Children's Fund. New York, NY.

Yost, D. (2016, July 14). Ohio fraud report log. Retrieved July 14, 2016, from https://ohioauditor.gov/fraud/FraudReportLog.pdf

Appendix A – Questionnaire of Individual Experiences

How do you and your Institution learn from Whistleblower Claims?

A donation will be made to UNICEF for each completed survey

* Required

Survey of Approaches to Learning from Whistleblower Claims

Claims of fraud, theft, and misconduct, can be used as learning points for institutions whether the claims are valid or not. This short survey (5 minutes or less to complete) seeks to understand the approaches used to solicit, administer, and learn from whistleblower claims. My research seeks to create a framework to improve the governance of higher education through a better understanding of approaches used in different institutions, states, and countries.

Chris Schmidt CMA, CIA
Faculty of Business and Economics
University of Pecs
Pecs, HUNGARY
schmidt.christopher@pte.hu

Thank you for taking the time to support this research.
Please forward to your colleagues!

This survey is anonymous and confidential

At the end of the survey you can request a copy of this research. It is optional and not required to provide contact information. No other technology is being used to track information about your response.

About Your Institution

Please answer these questions about your institution

1. **1.1 What is the type of Institution that your replies are based upon? ***
   Your place of work or the type of institution you work with that you are basing your answers on
   Mark only one oval.

   ◯ Public or State funded 2 Year College (Associates degree, trades degrees)

   ◯ Private 2 Year College (Associates degree, trades degrees)

   ◯ Public or State University (Baccalaureate, Masters, PhD)

   ◯ Private University (Baccalaureate, Masters, PhD)

   ◯ State Level Higher Ed Administration

   ◯ National or Federal Level Higher Ed Administration

2. **1.2 What country and state is your institution located or have it's main campus? ***

CA, Saskatchewan, or US, Iowa or Hungary, Baranya, or Germany, Baden-Wuerttemburg

3. **1.3 Please provide your institution's name ***

Please avoid abbreviations and repeat state or country information

4. **1.4 For what part of your institution are you responses applicable? ***

For example: School of Medicine, School of Arts, Facilities Department, or Institutional Component

5. **1.5 Does your Institution have a Code of Ethics? ***

Institutional Code of Ethics is requested here, not profession specific codes such as Medical
Mark only one oval.

◯ Yes

◯ No

◯ Don't Know

6. **1.6 Please provide a link to your institution's Code of Ethics:**

About Yourself

Please answer these questions about your role and experiences

7. **2.1 What is your role at your institution? ***

Mark only one oval.

◯ President / Chancellor / Rektor

◯ Board Member / Board of Trustees / Board of Regents

◯ Academic Leadership / Dean / Chair

◯ Senior Leadership Team/Executive Leadership Team/Cabinet Vice Presidents

◯ Faculty

◯ Staff

◯ Student

8. **2.2 Have you had training on identifying and reporting types of fraud, theft, or misconduct? ***

Mark only one oval.

( ) Yes

( ) No

9. **2.3 Did this training include examples from your institution or other nearby institutions to help improve the institution's ability to protect itself from fraud, theft, or misconduct?**

Mark only one oval.

( ) Yes

( ) No

( ) Don't know

10. **2.4 Have you ever encountered theft, fraud, or misconduct in your workplace? ***

Mark only one oval.

( ) Yes

( ) No

11. **2.5 Was Institutional leadership aware of or informed about this, or did it go undetected?**

Mark only one oval.

( ) The Institution and Leadership were aware and took action

( ) The Institution and Leadership were aware and did not take action

( ) The Institution and Leadership were not aware, the incident was undetected, not detected

12. **2.6 Have you ever reported a concern or made an anonymous complaint ***

Mark only one oval.

( ) Yes

( ) No

13. **2.7 If you have reported a concern or complaint,**

Mark only one oval per row.

	Yes	No
Was the issue addressed properly?	( )	( )
Was your anonymity preserved?	( )	( )
Did your working environment or position worsen after making the claim?	( )	( )
Was this at your current institution?	( )	( )

14. **2.8 In your opinion is whistleblowing an important process for your institution to execute well? ***

Mark only one oval.

	1	2	3	4	5	
Unimportant	◯	◯	◯	◯	◯	Very Important

15. **2.9 In your opinion, is your institution getting smarter and better about protecting itself from theft, fraud, and misconduct? ***

Mark only one oval.

	1	2	3	4	5	
Getting Worse	◯	◯	◯	◯	◯	Getting Better

16. **2.10 Please explain:**

....

....

....

....

....

How does your institution solicit claims or concerns?

17. **3.1 What methods are available for you to report a concern of fraud, misconduct, or theft? ***

Mark only one oval.

◯ Drop Box or official mail address

◯ Web site

◯ Paper Forms

◯ No method is available

◯ Other: ....

18. **3.2 Please provide a link to your institution's web site for soliciting whistleblower claims:**

....

19. **3.3 How long has your institution had a policy and process for soliciting whistleblower claims? ***

Mark only one oval.

( ) Policy does not exist and is not being considered

( ) Currenlty being developed

( ) Last 12 months

( ) More than 1 year old

( ) Other: ....

20. **3.4 Please provide a link to your institution's policy for soliciting and handling whistleblower claims:**

....

How does your institution administer claims?

Administer meaning handle, address, track, resolve, process

21. **4.1 Who is responsible for receiving and investigating responding to a whistleblower claim? ***

Mark only one oval.

( ) Human Resources

( ) Internal Audit

( ) Board Committee /Secretary

( ) President's Office

( ) Provost's Office

( ) Fiscal Office

( ) We do not have this responsibility assigned

( ) Other: ....

22. **4.2 Is there an institutional review of claims received? ***

Mark only one oval.

( ) Yes, by a committee or group

( ) Yes, by an individual

( ) No, my institution does not review the status and nature of claims

23. **4.3 How does your institution present and report to the public the status of claims? ***

Mark only one oval.

- ( ) Website
- ( ) Email report
- ( ) Paper report
- ( ) We do not report to the public about the number and types of claims
- ( ) Other: ....

How does your institution learn from claims?

24. **5.1 Does your institution publish an annual report of the claims received and outcomes of such claims? ***

Mark only one oval.

- ( ) Yes
- ( ) No

25. **5.2 Does your institution's strategic plan identify learning from whistleblower claims or improving internal controls as a goal?**

Mark only one oval.

- ( ) Yes
- ( ) No

26. **5.3 Please provide a link to your institution's annual report of claims of fraud, theft, and misconduct:**

....

27. **5.4 Does your institution track open claims until closure, and include them in the annual report every year until the claims are resolved? ***

Mark only one oval.

- ( ) Yes
- ( ) No

28. **5.5 Does your institution have a policy statement that compels the leadership and institution to learn from and improve it's ability to protect itself from fraud, theft, and misconduct? ***

Mark only one oval.

- ( ) Yes
- ( ) No

29. **5.6 Please provide a link to this policy statement:**

....

30. **5.7 Does your institution also review and seek to improve operations from invalid or unsubstantiated claims? ***

Mark only one oval.

○ Yes, my institution looks at all claims and identifies ways to prevent similar occurrences

○ No, my institution only looks for learning opportunities from proven, valid claims

Free Response Section

31. **6.1 If you would like to elaborate on any aspect of this survey or your experiences, please do so below**

....

....

....

....

....

Thank You

Your answers will be used to improve college and university governance!

...and a donation will be made to:

unicef

UNICEF works for a world in which every child has a fair chance in life.

32. **If you would like copies of the research findings, please provide your email below, or email me at schmidt.christopher@pte.hu**

....

Appendix B – UK HEFCE List of Wrongdoing and Fraud Schemes

37 Case studies reported by institutions and shared by the UK Higher Education Funding Council for England via their website (http://www.hefce.ac.uk/reg/Notifications/Fraud,updates/)

3.1 Ransomware attacks

We have become increasingly aware of ransomware attacks on higher education orgnisations. Ransomware is where an external party takes control of an organisation's computer systems, information and data through a computer virus or malware, and threatens to sell, destroy or withhold that data unless a ransom is paid.

The sums of money involved are usually relatively small (up to £1000) and denominated in bitcoins (an internet currency). Organisations across the world have been targeted. The criminal, who could also be anywhere in the world, relies on generating a high volume of these small payments.

We ask all higher education providers to be alert to this risk and ensure that their antivirus and antimalware software is regularly updated to mitigate risk. Providers subject to such an attack must respond in the best interests of their organisation. However, we do not condone the payment of a ransom as it can encourage further attacks on other organisations.

3.2 Forged changes to suppliers bank account details

We have been notified of a number of frauds and attempted frauds involving forged changes to suppliers' bank account details documentation. Examples have used headed supplier stationery, included the university's customer reference number and also been supposedly signed by the supplier's Director of Finance.

The sums of money involved have been quite significant and institutions from across the country have been targeted. Although we are not aware that the frauds are linked, a number have involved construction companies presumably because payments to such suppliers tend to be larger.

We ask all institutions to be alert to this fraud risk and briefly review the controls that they have over changes to supplier details, and ensure that mitigating action is taken where necessary to minimise any fraud risk (for example, by independently verifying with the supplier the change to supplier details before it is actioned).

3.3 Impersonating a university to obtain credit and goods

A university found that fraudsters were impersonating the institution to obtain credit and the supply of goods to non-university addresses. The fraudsters were approaching suppliers for credit and submitting bogus purchase orders (looking very like official ones). If the supplier did not identify the fraud, they supplied goods on credit. The fraudsters are using a recently created e-mail domain (based in Bermuda), which is very similar to the university's real one.

The university is so far aware of over 30 suppliers being targeted but only a few have supplied goods and presented invoices to the university. The invoices were successfully intercepted and no payments were made, however given the volume of transactions processed every day there are potentially some risks. The scale of the operation is not known and it may be wider than has been detected so far. The university informed other institutions, in particular those where similar domain names appear to have been registered.

3.4 Tuition fees paid by students to third parties

During enrolment at the start of the academic year, a small number of international students enrolled at a university, explaining that they had paid their fees in full. The university found, on investigating, that they could find no record of the payments. The university asked the students for more information. This revealed that, contrary to procedure, the students had paid their fees to an unrelated third party, rather than through the university's online payment system. The third party subsequently stopped trading and the university commenced legal action to help the students recover their money.

3.5 Collusion to misrepresent travel expenses

A fraud was identified involving several staff members at an institution and a number of staff at the institution's travel supplier. This involved collusion to misrepresent business class travel (flights) as economy class travel on a research contract. The costs to the institution is expected to be round £25,000, representing the difference between the business and economy class costs that

cannot be reimbursed through the contract. One member of the institution's staff resigned and an investigation was undertaken.

3.6 Tuition fee payment using stolen credit cards

An institution reported that a range of stolen credit cards were being used to pay students debts. The financial impact identified to date was around £23,000. Initial investigations suggest that this fraudulent scheme was being 'sold' to students and the police were investigating on this basis. The institution believed that the network of students being sold this scheme (if confirmed by the investigation) could extend beyond the reporting institution.

3.7 Diversion of supplier payments by staff member

An institution reported that approximately £570,000 was fraudulently obtained by a member of the Finance Office from the time when the individual joined the institution. Payments from suppliers were diverted into an account controlled by the staff member. The fraud was identified when the individual's bank became suspicious and notified the police. The staff member had recently left the institution and has since been arrested by the police.

3.8 Tuition fee fraud attempt

An institution reported the possible loss of up to £40,000. This arose from a number of students who attempted to pay part of their tuition fees using a variety

of credit and debit cards which did not belong to them. The possible fraud was identified on rejection of the transactions by the card agent. The students themselves may have been victims of a fraud in which they were offered a discounted fee rate by an intermediary who then paid the 'discounted fee' to the institution on behalf of the student, with the student reimbursing the intermediary. The fee paid by the intermediary may have been made using stolen credit cards.

3.9 Misappropriation of cash payments for car parking

An institution reported the loss of approximately £120,000 from cash takings in relation to the public use of the institution's car parking facilities in the evenings and at weekends. The fraud was identified following installation of covert cameras in response to suspicions about cash handling in relation to these car parking facilities. Two staff members were dismissed by the institution and the police subsequently arrested and charged both individuals.

3.10 Printing and reprographics - overcharging for services

The institution reported a suspected fraud (potentially in excess of £1 million) in the printing and reprographics services over a seven year period. This related to overcharging for printing and paper supply by an outsourced service provider and other related matters. Internal audit have investigated the matter and the institution's audit committee has discussed the resulting report and have resolved to refer the matter to the police.

3.11 Conference payment

An institution received £60,850 in respect of a conference which did not go ahead, for which the quoted price was £26,350 plus VAT. A refund of £60,850 was made to a bank account in Abu Dhabi, after which it was discovered that the income came by a cheque which bounced.

3.12 Payments for services and equipment not delivered

A breach of trust involving a senior manager at an institution was reported. The fraud involved inappropriate payments to a consultancy owned by the senior manager and the employment of family members. The institution recovered the circa £300,000 that was involved and the senior manager was been dismissed.

3.13 Payments for equipment not delivered

A fraud was notified involving payments for IT equipment that was never delivered. While some irregularity had been identified and a member of staff dismissed, the full scale was not discovered until a few months after and totalled approximately £450,000.

3.14 Fraudulent claim for student finance support

The Student Loans Company (SLC) identified a suspicious pattern of applications for student finance support. Upon further investigation it transpired that an individual had made multiple claims for student support totalling £32,000 while allegedly attending two higher education institutions. Although the individual was creative in his fraudulent activities, the conduit to these frauds was the institutions' failure to notify the SLC of non-attendance in a timely manner. The individual enrolled on six different courses over a period of four years, but never attended any of them. Criminal proceedings were taken against the individual who was subsequently sentenced to serve three years.

3.15 Misuse of funds for expenses and overseas travel

A higher education institution identified that the leader of a project using grant funding (non-HEFCE), had misused approximately £15,000 of the funds for their personal benefit through expenses and overseas travel claims. The university enacted their fraud response plan, by carrying out a full investigation with frequent reporting to their audit committee and their internal and external auditors.

3.16 Private use of university equipment

A university discovered staff who were conducting private work with university-owned laboratories, equipment and consumables. An individual at the university was preparing scientific samples for outside organisations and invoicing the

organisations personally. The individual also appears to have paid other staff in cash to assist.

The matter was identified when an outside body made a BACS payment to the university which could not be matched to an invoice. The investigation has identified a trail of evidence going back to 1988 and approximately £76,000 in total. There is no evidence that funds were misappropriated from university bank accounts.

3.17 Theft of cash

A university reported that approximately £43,000 has been taken from the cash of the front of house sales of its theatre. This arose due to failures in the cash handling process. Two members of staff were dismissed for gross negligence and the university notified the police.

3.18 Use of funds for personal expenditure

A university reported collusion between senior staff in a small academic unit that enabled approximately £33,000 of institution funds to be claimed in respect of personal expenditure by a member of staff. The institution dismissed one member of staff and another resigned. The university reviewed control arrangements in the small number of similar sized units at the institution and guidance on the use of discretionary funds.

3.19 Consultancy payments

A university reported a fraud that related to consultancy payments. A form was presented for payment but payroll staff were suspicious because of the size of the payment and the lack of details were provided as to the nature of the work. The approver confirmed that his signature had been forged. A review of other payments to the same 'consultant' revealed 34 small payments over four years totalling £107,000. The university identified the person responsible from a log that recorded who had been issued the batch of payment forms.

3.20 Funds for foreign students

A university recruited students from Nigeria who were to be sponsored by one of the country's regional governments. An agent was involved but the agreements were clear that the agent was not to be involved in the financial aspects of the relationship. In the event the regional government chose to pay the agent who then passed on funds to the university. Although the first instalment was made without incident, the agent directed the second stream of funding back to Nigeria to support the regional governor's personal political aspirations. The state government would not pay the university (having paid the agent) and the agent, despite many promises to do so, did not make any further payments to the university.

3.21 Unsupported cash withdrawals

A university reported a senior member of staff made cash withdrawals which could not be supported by appropriately authorised documentation. The member of staff was dismissed following a disciplinary procedure. The university commissioned internal audit to investigate this matter to determine how these issues arose.

3.22 Fake award certificates

A university informed us of a police investigation into an ex-member of staff who had also worked at another university accused of issuing fake award certificates in return for favours. The Head of Internal Audit conducted a full investigation and controls have been improved. No evidence of any financial loss or erroneous data entries was found. The ex-employee had already been dismissed from the university in relation to an unrelated disciplinary matter. The defendant was found guilty.

3.23 Diversion of payments

The Director of an Institute informed HEFCE that they had uncovered a fraud whereby a person had issued invoices containing private bank account details for payment. This was identified through normal credit control procedures. The value of the fraud is believed to be around £70, 000. The staff member resigned and the police investigated. Internal Audit carried out a review of the controls.

3.24 Application for finance

An application for loan finance, supposedly for the purchase of printers, was made in the institution's name by persons unconnected with the institution. The signature of the head of the institution had been forged and the institution's logo had been used on the application. This was identified when the finance company contacted the institution, and before any payments had been made. The matter is being dealt with by police.

3.25 Theft of cash and cheques

Approximately £900 in cash and cheques from the sale of CDs at a jazz summer school was stolen. Internal audit investigation established that there had been inadequate controls in place, and the person responsible for this resigned. The police were informed.

3.26 Misdirected research funds

£25,000 of research funds were incorrectly paid to an academic staff member of a university. When this was detected and pointed out, the funds were returned. Internal audit investigated this. Dishonest intent was not established.

3.27 Altered cheques

An employee of a university subsidiary company intercepted cheques made out to the company and altered them to become payable to himself. Internal audit investigated this and the police were informed. The employee was dismissed, charged and convicted. Losses were estimated at £45,000. Fraud controls have since been updated.

3.28 Goods obtained at university's expense then sold on

A member of a university's staff ordered low-value electronic goods through the university's procurement system then sold them on e-bay, pocketing the proceeds. Internal audit investigated and the police were informed. It was established that the fraud had gone on for seven years and losses were estimated at between £150,000 and £225,000. An insurance claim was lodged. The member of staff was dismissed and charged. Procedures were tightened up.

3.29 Bogus invoices from an overseas intermediary

A university received bogus invoices from a Kuwait intermediary. Two invoices, totalling between £20,000 and £50,000, were paid before the university realised. The university managed the situation and employed an investigative company (Control Risks) to pursue the matter.

3.30 Cloned cheques

A bank reconciliation revealed six cloned cheques charged to a university bank account and overall 13 such cheques, totalling £65,000, had been passed. The bank (NatWest) reimbursed the university. This was reported to the police.

3.31 Collusion to defraud

Two external organisations colluded to defraud a university. This was identified and prevented. The police were informed.

3.32 False charges raised and intercepted

Over a four year period an employee in a university department raised false charges for medical sample analysis and took the money. The department transferred to the NHS and the NHS Counter Fraud Service and the university's internal auditors investigated the matter.

3.33 Collusive tendering and overcharging for building work

A university maintenance officer took advantage of poor controls and ignored procedures over a number of years, allowing a small local building firm to repeatedly win tenders for small capital works. The unsuccessful tenderers were the same on each occasion, and were either fictitious or acting in collusion. Internal audit discovered and investigated this and the police and Office of Fair

Trading were informed. Overcharging was estimated at £87,000 for recent work, with a possible total of £900,000 overcharged for work carried out. Action was taken against the university employee.

3.34 Bogus research grant

A principal investigator (PI) obtained a research grant from a charity. Salaries, travel and other expenses were paid by the university, and charged against the research grant. The initial installment of grant was paid over to the university, but subsequent ones were not, delaying tactics being employed in response to queries. Eventually credit controllers alerted management, the research project was cancelled, and the relevant research staff made redundant. On investigation it emerged that the charity was bogus and the PI appeared to be linked with the charity. Approximately £125,000 was misappropriated.

3.35 Telephone account hijacked

A university telephone system was hacked into, from or via an overseas location, and used to make 8,000 international calls over a seven-week period, before the university were alerted to the unusual call pattern. The system loophole was fixed. The university recovered losses of £145,000 through insurance and the telephone service supplier.

3.36 Irregular payroll payments

A temporary staff member in a university payroll department, acquired via a staff agency, made a number of irregular payments. Upon discovery and investigation, it emerged that the references, and probably also the identity of the temporary staff member - who had left - were fake. Losses were estimated at £10,500.

3.37 Embezzlement

The Chief Executive, and the book keeper, of a university subsidiary company colluded to make bogus patent charges and to divert patent fees amounting to £8 million over a period of 12 years when this was discovered. £2 million of this may be recoverable.

Appendix C –Author's Publications and Conferences

PUBLICATIONS

Bonau, S., Schmidt, C. (submitted) Cognitive Biases' influence on Consumers' Heuristic Purchasing Decisions. *International Journal of Strategic Management and Decision Support Systems in Strategic Management*. University of Novi Sad. Subotica, Serbia.

Schmidt, C.R. (2017) Exploration of Mechanisms used for Organizational Learning related to Whistleblowing Claims in Institutions of Higher Education at the State and the Institution. In Ramazanov, A (Ed) *The market of intellectual products of Kazakhstan: theory and practice*. Almaty, Kazakhstan. 7-36. ISBN 978-601-323-091-7. UDC 330-063.

Schmidt, C.R. (2017) Technology's Impact on Marketing. *International Journal of Strategic Management and Decision Support Systems in Strategic Management*. University of Novi Sad. Subotica, Serbia. Vol. 22, No.3. 19-28. ISSN 1821-348, UDC 005.21.

Schmidt, C.R. Farkas, F. (2016). The Profitability Puzzle. *International Journal of Strategic Management and Decision Support Systems in Strategic Management*. University of Novi Sad. Subotica, Serbia. Vol. 21, No.4. 3-11. ISSN 1821-348, UDC 005.21.

Schmidt, C.R. (2016). State-level Mechanisms for Learning from Whistleblowing Cases involving Institutions of Higher Education in the United States. *Problems of Management in the 21st Century.* Siauliai, Lithuania*.* Vol. 11, No. 1. 43-56. ISSN 2029-6932.

Schmidt, C., Kiraly, A. (2015) Commonalities between US and Hungarian Universities with regards to Organizational Development and Controls against the Moral Hazards of Administration. *The Hungarian Journal Marketing & Management*.   Pecs, Hungary. Vol. 2015. No. 4. 79-89.

Schmidt, C.R. (2015). Learning points from Whistleblower Claims against Institutions of Higher Education: the Case of Ohio. *Problems of Management in the 21st Century.* Siauliai, Lithuania*.* Vol. 10. No.2, 110-120. ISSN 2029-6932. (*This paper received a national award for Top Conference Paper of 2015 from the Kazakhstan Academy of Sciences – ranked #3*)

Schmidt, C. R., Farkas, F. (2015) Anonymous Reporting "Whistleblowing" as a Mechanisms to improve Institutions of Higher Education: the Case of Ohio. *Almaty Conference Proceedings.* Almaty, Kazakhstan.   ISBN 978-601-228-708-0

Schmidt, C. (2005). A Sarbanes-Oxley Dilemma. *Internal Auditor.* The Institute of Internal Auditors. Lake Mary, Florida. Vol.62. No. 3. 29-32.

Schmidt, C. (2005). The driver's view. *Internal Auditor.* The Institute of Internal Auditors. Lake Mary, Florida. Vol.62. No. 1. 89-92.

Schmidt, C. (2004). Sensitive Areas of Concern. *Internal Auditor.* The Institute of Internal Auditors. Lake Mary, Florida. Vol.61. No. 3. 93-96.

CONFERENCES

Schmidt, C. (submitted) Models of Factors affecting Individuals Experiences with Wrongdoing within Institutions of Higher Education. 1st Ference Farkas International Scientific Conference. University of Pecs, Hungary.

Schmidt, C.R. (2017) Exploration of Mechanisms used for Organizational Learning related to Whistleblowing Claims in Institutions of Higher Education at the State and the Institution. *Almaty Conference Proceedings.* Almaty, Kazakhstan.

Schmidt, C.R. (2017) Technology's Impact on Marketing. 22nd International Scientific Conference on Strategic Management and Decision Support Systems. University of Novi Sad. Subotica, Serbia.

Schmidt, C.R. (2016). Proactive Learning from Whistleblower Claims in Higher Education. American Association of University Professors (AAUP) Shared Governance Conference. Washington, D.C.

Schmidt, C.R. Farkas, F. (2016). The Profitability Puzzle. 21st International Scientific Conference on Strategic Management and Decision Support Systems. University of Novi Sad. Subotica, Serbia.

Schmidt, C. R., Farkas, F. (2015) Anonymous Reporting "Whistleblowing" as a Mechanisms to improve Institutions of Higher Education: the Case of Ohio. *Almaty Conference Proceedings.* Almaty, Kazakhstan.