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## Enterprise Risk Management (ERM) at U.S. Colleges and Universities: Administration Processes Regarding the Adoption, Implementation, and Integration of ERM

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ENTERPRISE RISK MANAGEMENT (ERM) AT U.S. COLLEGES AND  
UNIVERSITIES: ADMINISTRATION PROCESSES REGARDING THE  
ADOPTION, IMPLEMENTATION, AND INTEGRATION OF ERM

by

Anne E. Lundquist

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# ENTERPRISE RISK MANAGEMENT (ERM) AT U.S. COLLEGES AND UNIVERSITIES: ADMINISTRATION PROCESSES REGARDING THE ADOPTION, IMPLEMENTATION, AND INTEGRATION OF ERM

Anne E. Lundquist, Ph.D.

Western Michigan University, 2015

The variety, type and volume of risks affecting higher education are numerous and the consequences for unmanaged risks and missed opportunities are more significant than ever before. In response, many institutions of higher education are adopting an Enterprise Risk Management (ERM) approach. External factors, as well as institutional culture, play a role in the decision to adopt ERM, as well as the path of implementation. Because higher education has unique characteristics that differentiate it from other organizations, particularly a shared governance structure, the adoption and implementation decisions, and resulting ERM frameworks, have aspects that make them unique to the higher education environment. While adoption of ERM is increasingly widespread, empirical research is limited, particularly in the higher education sector.

The purpose of this constructivist grounded theory mixed methods study was to understand decision-making and administration processes regarding the adoption, implementation, and integration of ERM at institutions of higher education (IHE) in the United States (U.S.) from the point of view of administrators with ERM responsibility and oversight and to build theory of ERM implementation in the higher education sector to be used by researchers and practitioners.

Results reveal that IHEs adopt ERM either as a proactive initiative by the board or president or in response to a sentinel event (or a combination). ERM implementation activities move through four levels (forming, developing, established, and integrated), not in a linear progression, rather in deepening phases organized around the academic year. The process of dialogue across institutional silos in the decentralized college and university environment may have equal benefit to the identification, evaluation, and mitigation of risks. While most administrators regard ERM as essential for achieving the institution's objectives, practitioners articulate that most faculty do not. This study opens up many other areas for research regarding particular aspects of ERM in higher education and also provides practical ideas and models for administrators tasked with adopting, implementing, and integrating ERM on their campus.

Key words: enterprise risk management; ERM; risk maturity; higher education; colleges and universities; shared governance

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Anne E. Lundquist

## DEDICATION

I dedicate this dissertation work to the memory of my mother, Georgia Townsend Lundquist, and my husband, Allan Lash Shackelford. My dissertation journey was interlaced with my mother's illness and death from Lewy Body dementia in May 2013, and the diagnosis of my husband with ALS Lou Gehrig's disease that same summer and his death in August 2013. Their love of learning supported and inspired me.

I dedicate it as well to my children, Andrew Lundquist-Wentz and Chelsea Lundquist-Wentz, who, even though far away in Denver and D.C. are always close to me in my heart.

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## CHAPTER I

### INTRODUCTION

The events of September 11, 2001, the tragedy at Virginia Tech, infrastructure devastation at colleges and universities in the New Orleans area in the aftermath of Hurricane Katrina, the sexual abuse and governance-related scandal at Penn State, faculty pushback regarding hiring and firing of university presidents, as well as other situations, have created heightened awareness of the potential destructive influence of risk and crisis for higher education administrators. The variety, type, and volume of risks affecting higher education are numerous, spanning the enterprise to include debt load, outsourcing of services, compliance with local, state and federal regulations, information security, student safety, disaster preparedness, competition for faculty, student conduct and mental health, discrimination lawsuits, athletics, and many more.

Universities face increased scrutiny from accreditation agencies, federal regulatory agencies, state legislators, and student and parent stakeholders (Blumenstyk, 2012; Boone, 2004; Bubka & Coderre, 2010; Campo, 2009; Cassidy, Goldstein, Johnson, Mattie, & Morley, 2001; Culcleasure, 2005; Dolan, 2006; Franke, 2007; Helsloot & Jong, 2006; Huber, 2009; Longo & Chang, 2012; Raanan, 2009; Robinson, 2010; Thomas, 2010; Wade, 2011; Wilson, 2013). The news media has a heightened focus on financial, governance, safety, and ethical matters at institutions of higher education (IHE), holding them increasingly accountable for poor decisions and thus negatively affecting reputations (Boone, 2004; Durso & Almand, 2010; Willson, Negoi, & Bhattanagar, 2010). Shifting demographics, declining state support, and competition from new education providers also present emerging risks for colleges and universities (Abraham, 2013; Blumenstyk & Stripling, 2012; Fain, 2010; Kiley, 2013). “U.S. policy initiatives to promote higher education accountability have continued, albeit in differing forms, for two decades. They

have had substantial impact. Today, state agencies, accrediting agencies and universities and colleges all operate with greater focus on accountability goals” (El-Khawas, 2005, p. 287). As noted in the *Risk Analysis Standard for Natural and Man-Made Hazards to Higher Education Institutions*, “resilience of our country’s higher education institutions has become a pressing national priority” (American Society of Mechanical Engineers, 2010, p. vi).

Presidents, boards, internal auditors, legal counsel, and financial administrators in higher education have all become more familiar with the concept of ERM (Abraham, 2013; Gallagher, 2009; Roach, DeSouzat, & Kaufman, 2010; Siegrist, Gutscher, & Keller, 2007; Pelletier, 2007; Schwartz & Perregrine, 2004; URMIA, 2007). Whether to respond to external scrutiny and compliance demands, or to integrate emerging best business practices into risk management and strategic decision-making (or both), IHEs are increasingly adopting and implementing ERM models. The Association of Governing Boards of Universities and Colleges (AGB) declares that “risk management is at its core a government and management discipline, not an end but a means to the end, with the end being the accomplishment of the institution’s mission” (Abraham, 2013, p. 3).

The ERM term has been applied to widely differing approaches (Kleffner, Lee, & McGannon, 2003; Mikes, 2005, 2009; Mikes & Kaplan, 2014; Power, 2009). While there is not one agreed upon definition of ERM, many definitions share common themes: a process, built into routine business practices, designed to identify, assess, prioritize, and manage key risks that may have an impact on the ability of an organization to attain their long-term strategic objectives (Beggan & Hester, 2011; Lermack, 2008; URMIA, 2007). “It is the idea of risk management as a transversal process that addresses all the events which could prevent the achievement of objectives” (Arena, Arnaboldi, & Azzonne, 2011, p. 779). Most definitions reveal three common



characteristics: *integrated* – spanning the organization; *comprehensive* - including all types of risk; and *strategic* – aligned with the overall business strategy (Abrams, vonKanel, Muller, Pfitzmann, & Ruschka-Taylor, 2007).

Over a decade ago, Lam (1999) cited ERM as the “industry standard for risk management” (p. 301). While wide-spread in the corporate sector, ERM is fairly new in higher education. In all sectors, ERM is “an evolving discipline focused on a complex and still imperfectly understood subject” (Fraser, Simkins, & Narvaez, 2015, p. xiii). In recent years, various groups and organizations have moved to standardize ERM elements and processes, including The Committee of Sponsoring Organizations of the Treadway Commission (COSO), the International Organization for Standardization (ISO), the Institute of Internal Auditors (IIA), the Federation of European Risk Management Associations (FERMA), the Open Compliance Executive Group (OCEG), the British Standards Institution (BSI) and others. Even with the recently developed frameworks and definitions for ERM, there remains wide variability in the adoption, implementation, and integration of ERM into organizational strategies, processes, planning, and decision-making. In all sectors, empirical research regarding the adoption, implementation, and integration of ERM is limited.

### **Practical Problem Statement**

The variety and type of risks facing IHEs are numerous and colleges and universities face a difficult time accounting for, responding to, and mitigating risks in a proactive manner. Universities face increased scrutiny from stakeholders and expectations to proactively manage risk are high (Willson, et al., 2010). In the U.S., proof of well-developed risk management programs for IHEs is not specifically required by accrediting agencies or the federal government, although some aspects of compliance may result in an IHE engaging in risk management efforts

and activities. Credit rating agencies are increasingly requiring evidence of comprehensive and integrated risk management plans to ensure a positive credit rating, including demonstration that the board is aware of, and involved in, risk management as a part of its decision-making (Aon, 2009; Goodman & Woepfel, 2010; Kedem, 2010, 2011; Moody's, 2002; PriceWaterhouseCoopers, 2009). Internal Auditors at IHEs must provide independent assurance to boards of effective risk management and are held accountable for that role by the International Standards for the Professional Practice of Internal Auditing (IIA, 2004; PricewaterhouseCoopers, 2007). Federal and state governments have increased expectations not only for affordability and fiscal responsibility by IHEs, but for direct evidence of student learning and effective teaching and research (Eaton, 2011; Fain, 2010; Goins, Giacomino, & Akers, 2009; Kiley, 2013).

Trustees and board members, many of whom are chief executive officers (CEOs) of corporations where ERM is a federally mandated requirement, are introducing the ERM concept to presidents and chief financial officers (CFO) of IHEs (Abraham, 2013; Gallagher, 2009). Major higher education associations have endorsed and recommended the ERM approach, including AGB, the National Association of College and University Attorneys (NACUA), the University Risk Management and Insurance Association (URMIA), and the National Association of College and University Attorneys (NACUA). Gurevitz (2009) describes ERM as the “holistic risk management tool of the future for higher education” (para 10). Many IHEs have adopted ERM programs to help them identify and respond to risk, but there are few models that comfortably fit the higher education environment, forcing IHEs to rely on expertise developed for other sectors (Raanan, 2009). Early versions of ERM frameworks were presented to IHEs in complicated ways, “making it difficult to translate the concepts for many universities” (Gurevitz, para 12). In addition to identifying, prioritizing, and responding to institution-wide risks, a

growing number of universities are attempting to integrate risk management into their strategic planning and decision-making processes (Achampong, 2010; NACUBO & AGB, 2007; Willson, et al., 2010, p. 66).

ERM is in various stages of implementation across sectors (Beasley, Clune, & Hermanson, 2005; Deloitte, 2011; Mikes & Kaplan, 2014; RIMS, 2011a). While IHEs have started to adopt ERM program, as a whole, higher education lags behind other sectors in ERM adoption and maturity (AGB, 2009, 2014; Gurevitz, 2009; Tufano, 2011). A definitive list of those with ERM models is not readily available and some IHEs that adopt the philosophy of ERM may not necessarily utilize that specific term, making it difficult to evaluate the full scope of ERM practices in the higher education sector or to easily locate existing ERM programs to utilize as best practice models.

### **Research Problem Statement**

Empirical research regarding the adoption, implementation and integration of ERM programs is limited and there is little academic literature on the topic (Beasley, et al., 2005; McShane, Nair & Rusturnbekov, 2011; Mikes, 2005, 2009). Survey evidence describes the prevalence and characteristics of ERM programs in corporations (Accenture, 2013; Aon, 2015; Deloitte, 2011, 2013; Beasley, Branson, & Hancock, 2012; CAS, 2007; EisnerAmper, 2012; Rizzi, Simkins, & Schoening-Thiessen, 2011; RIMS, 2011a, 2013; PriceWaterhouseCoopers, 2007), however empirical evidence regarding the determinants of these programs is lacking (Liebenberg & Hoyt, 2003; Mikes, 2005, 2009; Mikes & Kaplan, 2014). While many organizations “have adopted the mission and principles of ERM, we know little of how enterprise risk management works in action” (Mikes, 2009, p. 19).

Mikes and Kaplan (2014) separate the recent empirical ERM research into three categories: selection studies, performance studies, and variation studies. In selection studies, researchers use firm-specific contextual variables to explain the presence or lack of ERM (Advisen, 2013; Aon, 2015; Beasley, et al., 2005; Kleffner, et al., 2003; Liebenberg & Hoyt, 2003; Paape & Spekle, 2012; Pagach & Warr, 2011). The second category focuses on the performance implications of ERM implementation, often referred to as “value” (Baxter, Bedard, Hoitash, & Yezegel, 2012; Beasley, Pagach, & Warr, 2008; Farrell & Gallagher, 2014; Grace, Leverty, Phillips, & Shimpi, 2014; Hoyt & Liebenberg, 2011; Pagach & Warr, 2011). The third category is variation studies, an emerging focus of empirical ERM inquiry that “uses small-sample or field studies to understand risk management *in situ*, as an organizational and social practice, and has compiled sufficient evidence to suggest that risk management practices vary considerably across firms, even within an industry (Mikes & Kaplan, p. 11). These qualitative studies (Aabo, Fraser, & Simkins, 2009; Arena, Arnaboldi, & Azzonne, 2010; Fraser, et al., 2015; Kallenberg, 2009; Louisot & Ketcham, 2014; Rao, 2009; Woods, 2007), support the premise that “it is people, not frameworks, that identify, analyze, and act on risk information” (Mikes & Kaplan, 2014, p. 10). Regarding this emerging area of ERM research, Mikes and Kaplan conclude:

[Variation studies] provide an opportunity to develop grounded theories by studying actual risk practices in actual organizations. Such studies help us conceptualize and identify practices that may advance ERM, even when the company doesn’t call them risk management or when they are performed outside the risk function (p. 11).

Higher education in general is a relatively under-researched field (Tight, 2003; Kohoutek, 2013) and research on ERM in higher education is no exception. Most of the information

regarding ERM at IHEs has been developed by practitioners. While ERM in higher education studies exist (Campo, 2009; Culcleasure, 2005; Eick, 2003; Harwell, 2003; Helsloot & Jong, 2006; Mitroff, Diamond, & Alpasian, 2006; National Campus Safety and Security Project, 2008; Whitfield, 2003), there are no recent studies that focus specifically on the adoption, implementation, and integration of ERM in higher education.

ERM research is needed in several areas, including gaining a better understanding of ERM implementation (Pagach & Warr, 2011); the relationship of ERM to organizational structure (Arena, et al., 2010; Liebenberg & Hoyt, 2003); the incentives and barriers to ERM implementation (Beasley, et al., 2005); the roles and responsibilities in the risk manager function (Eick, 2003; Liebenberg & Hoyt, 2003); the risk management models used by organizations (Mikes, 2005); and risk maturity or degree of implementation in organizations (Beasley, et al., 2005; Farrell & Gallagher, 2014; Kimbrough, 2006). There is a need for case studies that help organizations understand the more holistic view of ERM, not just methods for identifying and mitigating risks that are easier to quantify (Aabo, et al., 2005; Beasley, et al., 2005; Fraser, et al., 2015; Schoening-Thiessen, & Simkins, 2008). “ERM needs theories (which are the interest of academics), but a grand theory of ERM (which invariably involves an interdisciplinary concept) is far from being achieved” (Acharyya, 2008, p.39).

### **Purpose Statement and Research Questions**

This study contributes to the identified gap in the empirical study of ERM, particularly in the higher education sector, and provides practical information for administrators at higher education institutions who have adopted or are considering adopting ERM. The purpose of this constructivist grounded theory mixed methods study is to understand decision-making and administration processes regarding the adoption, implementation, and integration of ERM at

colleges and universities in the U.S. with explicitly stated ERM programs (from the point of view of administrators with significant risk management responsibility and/or oversight) in order to gain an understanding of current ERM practices and principles in the higher education setting. The ultimate aim of the research is to build theory of ERM implementation specific to the higher education sector that can be used by other researchers and practitioners. The research question for this study was:

How do administrators with risk management responsibility at institutions of higher education (IHEs) in the U.S. describe ERM adoption, implementation, and integration, and what do these cases (quantitative and qualitative) offer by way of an explanatory model for how ERM is initiated, implemented, and integrated in the higher education sector?

Sub-questions were:

What factors led to the decision to adopt ERM?

What steps did institutions take to implement ERM?

How is ERM organized?

What activities are involved in the ERM process?

What is the relationship between organizational structure, goal-setting, decision-making, and ERM?

How do administrators describe the value of ERM?

### **Methods Overview**

This constructivist grounded theory mixed methods study was conducted using an exploratory design comprised of four interactive phases, using the constant comparative method for literature review, data collection, and analysis. The quantitative portion of the study was

descriptive, using a cross-sectional survey instrument to examine the phenomenon of ERM adoption, implementation, and integration in higher education at a specific point in time. The qualitative phase of the study adopted a case study approach. After a preliminary literature review regarding the basic elements of ERM in general, and within higher education, I designed a semi-structured interview protocol and field-tested it with a purposeful sample of key informants ( $n = 3$ ) at IHEs with ERM programs, as well as conducted document analysis for those institutions. Building on the analysis and findings, I designed a cross-sectional online survey instrument which was piloted ( $n = 3$ ), revised, and administered to risk managers and other administrators at IHEs with ERM programs ( $n = 29$ ). Building on interviews conducted during the field study, theoretical sampling was used to select a sample of key informant administrators ( $n = 5$ ) at IHEs with ERM programs for the qualitative portion of the study. Documents from the sample institutions were also analyzed. Using the constant comparative method, I used initial, focused and theoretical coding in an inductive and iterative process throughout the study, moving toward theoretical integration and the resulting Conceptual Model of ERM Adoption, Implementation and Integration at U.S. Colleges and Universities (see Figure 7).

### **Preliminary Conceptual Framework**

After a preliminary literature review, and prior to data collection, I created a conceptual framework to guide the study (see Figure 1). My supposition was that external environmental factors (e.g. regulatory requirements, federal legislation, public scrutiny, ratings agency requirements, media attention to institutional scandal, economic factors) and internal factors (e.g. appointment of a new president, financial viability, governance failure, dramatic changes in mission or curriculum) impacted the nature of the ERM adoption decision and resulting action

steps in the implementation process. I also surmised that institutional size, type, and structure affected how decision-making and goal-setting occurred, including the impetus for ERM adoption, which emerged from either a “top down” or “middle-up” approach. I speculated that institutional culture also affected decisions regarding ERM oversight as well as organizational location of the ERM program within the institution. Together, these elements influenced the resulting institution-specific ERM framework and model at the IHE and the degree of ERM maturity.

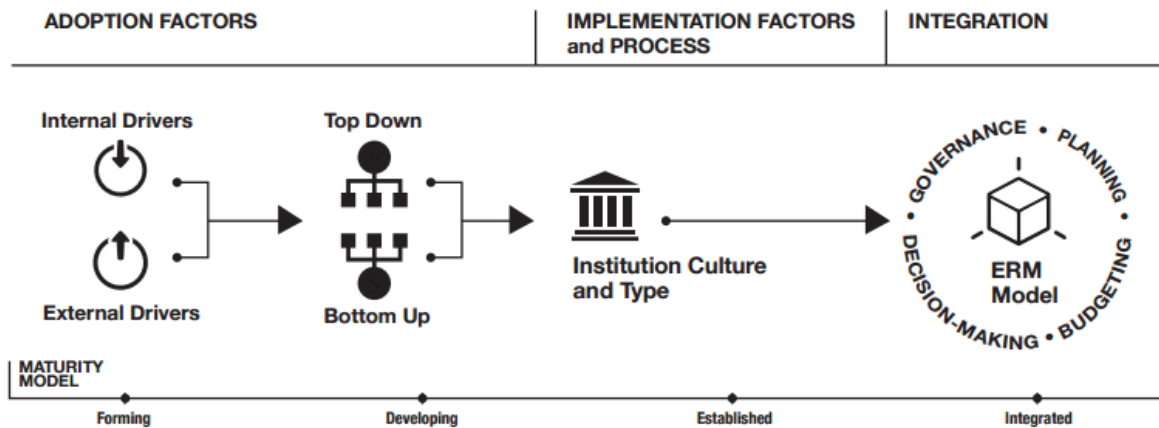


Figure 1. Preliminary conceptual framework of ERM at U.S. colleges and universities.

## Organization of the Dissertation

This dissertation study contains six chapters, a reference list, and appendices. Chapter I offers an introductory overview of ERM in higher education, identifying the practical problem faced by IHES as well as the gaps in empirical research, and outlines my rationale for conducting the constructivist grounded theory mixed methods study in order to contribute to the body of higher education research in this area. Chapter I also includes my preliminary conceptual framework, the research questions, and an overview of methodology and procedures.



Chapter II contains a review of the literature providing support for the study. The chapter provides a definition of risk and research on risk perception, traces the evolution of risk management, and discusses the risks and liabilities facing colleges and universities. Chapter II outlines the roles of those responsible for risk management and the main elements of the risk management process, discusses the two most common ERM frameworks, describes the concept of risk maturity, and the transferability of ERM to the higher education sector.

Chapter III provides the rationale for the constructivist grounded theory mixed methods approach, a description of the methods and procedures, the data collection and analysis approach, and delimitations of the study. Chapter IV describes the findings of the study, articulating the quantitative results, the qualitative results, and the relationship between the two. Chapter V contains the explication of my grounded theory and my Conceptual Model of ERM Adoption, Implementation and Integration at U.S. Colleges and Universities. Chapter 6 summarizes the findings and overall conclusions, the limitations of the study, the implications for ERM practice, and recommendations for further study. Chapter VI is followed by appendices and a reference list.

## CHAPTER II

### LITERATURE REVIEW

This review of the literature focuses first on the definition and perception of risk and the history and evolution of risk management in both corporate culture and higher education. The rise of ERM is explored, including the roots of ERM in corporate compliance and the resulting frameworks and models. Components of ERM are outlined, including the ERM process, responsibility for ERM, the risk maturity concept, and drivers for ERM adoption, implementation and integration factors within organizations. The unique aspects of higher education management and culture is discussed.

#### **Definition of Risk**

The word *risk* “derives from the early Italian *risicare*, which means ‘to dare.’ In this sense, “risk is a choice, rather than a fate” (Bernstein, 1998, p. 8). Reviews of the literature produce multiple and varied definitions of risk. Commonly accepted definitions include the concept of “an unknown change in the future value of a system” (Koenig, 2008, p. 8) and the measure of the probable likelihood, consequences, and timing of an event. Insurance companies define risk by the simple formula *risk equals probability times damage* and security and safety experts have a similar formula - *risk is probability times effect* (Helsloot & Jong, 2006, p. 143).

Economist Frank Knight (1921), in his seminal work *Risk, Uncertainty, and Profit*, draws the distinction between *uncertainty* and risk, claiming that risk is immeasurable and, hence, impossible to calculate. “Nothing is a risk in itself; there is no risk in reality. But on the other hand anything can be a risk; it all depends on how one analyses the danger, considers the event” (Ewald, 1991, p. 199). According to Power (2011), organizations are often called upon to plan for and manage a range of “risks” which, in actuality, are *Knightean uncertainties* in that they

lack any historical frequency data which might guide decision-making and judgments.

Emblemsvag (2010) clarifies the distinction: “Risks arise due to decisions made, while uncertainty is due to lacking information” (p. 253).

A widely accepted and commonly used definition comes from the *ISO 31000: 2009 Risk Management – Principles and Guidelines*: risk is the “effect of uncertainty on objectives.” An *effect* is a positive or negative deviation from the expected. *Uncertainty* exists whenever the knowledge or understanding of an event, consequence, or likelihood is inadequate or incomplete.

### **Risk Perception**

Attitudes about risk throughout an organization may vary widely (Power, 2009). Several authors have explored how human judgment and behavior impact the decision-making associated with risk, particularly how emotions are linked to decision-making (Blasovich & Taylor, 2011; Koenig, 2008; March & Shapira, 1987; Rabin, 2000; Slovic, 2007; Slovic, Finucane, Peters, & MacGregor; Rabin, 2000; Slovic & Weber, 2002; Visschers, Mertens, Passchier, & deVries, 2007). The feelings people associate with risk can have an influence on how they perceive risk (Barnett & Breakwell, 2001; Slovic, 1987). Research has found that the higher a particular risk’s score on the *dread factor* (those risks that speed up heart rate and make people anxious), the higher its perceived risk (Slovik & Weber, 2002). “Both dread and lack of familiarity with something will likely amplify the human response to a risk event” (Koenig, 2008, p. 13). “Such ideas seem to indicate that the ways in which human decision makers define risk may differ significantly from the definitions of risk in the theoretical literature, and that different individuals will see the same risk situation in quite different ways” (March & Shapira, 1987, p. 1405). “Risk decisions are subject to framing and personal bias, as well as the culture of an organizational

unit” (Blasovich & Taylor, 2011, p. 8). Empirical studies of risk taking also indicate that risk preference varies with context (March & Shapira, 1987).

While the research about risk response demonstrates that human’s affective (or emotional) responses tend to prevail over logic-based responses, most risk management frameworks include some form of quantification of risk (Koenig, 2008). Because “risk and uncertainty make us uneasy...quantifications are one manner by which we try to turn subjective risk assessments into objective measures” (Koenig, p. 15). “There is a great deal of existing research that shows that people do not make choices consistent with expected utility” (Barth, Hatem, & Yang, 2004, p. 152). “There are strong indications...that individuals do not trust, do not understand, or simply do not much use precise probability estimates” (March & Shapira, 1987, p. 1411). “Although quantities are used in discussing risk, and managers seek precision in estimating risk, most show little desire to reduce risk to a single quantifiable construct” (March & Shapira, p. 1408).

### **Risk Management**

“Maslow recognized risk in his famous hierarchy of needs by placing food and shelter, both essential to survival, on [*sic*] the first rung of the ladder” (Rao, 2009, p. 87). In his book, *Against the Gods: The Remarkable Story of Risk*, Bernstein (1998), an economist and financial historian, traces the history and evolution of “risk,” explaining that the modern concept of risk is rooted in the Hindu-Arabic numbering system and games of chance of the Greeks and Romans, noting that the concept of *risk management* emerges during the Renaissance with the inception of probability theory. “Risk management guides us over a vast range of decision-making, from allocating wealth to safeguarding public health, from waging war to planning a family, from

paying insurance premiums to wearing a seatbelt, from planting corn to marketing cornflakes” (Bernstein, p. 2).

Compliance programs as an approach to risk management in the U.S. can be traced back to the early twentieth century when public safety organizations began to emerge, such as the Food and Drug Administration in 1906, and worker’s compensation laws were introduced (New York Society of Security Analysts, 2010). The field of risk management was formally named in the 1960s by Robert Mehr and Bob Hedges, who outlined the steps in the risk management process (D’Arcy, 2012). At that point, risk management had a more limited scope and “meant making sure that an organization was adequately protected in the event of a catastrophe” (Cassidy et al., 2001, p. 2). “Traditional risk management was mainly the concern of accounting, finance, compliance, or internal audit managers, with a focus on the quantitative analysis of financial and insurable risks” (Blaskovich & Taylor, 2011). According to an URMIA whitepaper developed by a task force of IHE risk managers and other practitioners in the field:

Originally the scope of risk management was narrowly defined to include only accidents that resulted in a loss. In the 1980s, as sophisticated risk financing became an important alternative to insurance, risk management expanded to include other risk transfer and risk control strategies. Now the evolution continues as the focus of traditional risk management expands into strategic risk management, an even more comprehensive approach that does include investment, business, and political risks (2007, p. 3).

The practice of risk management as a discipline has shifted to reflect a more integrated and institution-wide approach (Abraham, 2013; Power, 2007; URMIA, 2007). “Recent years have seen an explosion of interest in risk management, which has moved from peripheral functional areas of the organization to the corporate level” (Arena, et al., 2010, p. 2). Risk

management has been elevated from the “...technical, analytical roots established in the 1960s to the relatively new stage of organizational governance” (Power, 2007, preface). It has “...become an empirical fact that the concept of risk in its raw form has acquired social, political and organizational significance as never before” (Power, 2007, p. 3). Risk management has moved beyond a silo approach and evolved to an integrated approach encompassing every level of governance (Deloitte, 2005; Wood & Randal, 2004). This integrated, enterprise-wise risk management concept has reached a critical mass of acceptance (Abraham, 2013; Gurevitz, 2009; Lam, 2003; Power, 2004, 2007; RIMS, 2013; Robinson, 2010).

### **Risk and Risk Management at Colleges and Universities**

Colleges and universities have often perceived themselves as substantially different and separate from other for-profit and not-for-profit entities and the “outside world” has historically viewed and treated them as such. Today, in addition to an increased focus on, and accountability for, student safety and welfare, colleges and universities face many of the same pressures and exposures to risk as those in the corporate world, “...namely, a dynamic business environment, an unforgiving stock market, industry mandates on corporate governance, and changes in regulatory and accounting requirements” (Lam, 2003, p. 287). Paul Clemente, Vice President for Business and Finance at Bentley University, noted at a NACUBO Conference: “Risk management used to mean calling your insurance agent. After 9 -11, bird flu, floods and Sarbanes-Oxley, risk management isn’t all that clear now” (Robinson, 2010). “Providing insurance and risk management to colleges and universities...has never been an easy proposition, [but] the 21<sup>st</sup> century has ushered in a daunting array of new exposures, like terrorism, that pose a threat whose magnitude is almost beyond calculation” (Boone, 2004, p. 84). “Higher expectations, an array of emerging exposures, and the need for meticulous risk management and

loss prevention are significantly upping the ante for institutions of higher learning” (Boone, 2004, p. 84).

Universities have incredibly complex risk profiles (Wade, 2011). Numerous authors have articulated the variety and type of risks affecting higher education (Campo, 2009; Culcluseare, 2003; Dolan, 2009; Helsloot & Jong, 2006; URMIA, 2007). Some of those risks come from within the institution, such as student suicide, debt load, contracting and purchasing procedures, emergency planning, IT network integrity, laboratory safety, violence on campus, record retention and disposal, alcohol and drug use, and employment decisions. Other risks are more external, such as competition for faculty, increased scrutiny from regulators and government agencies, competition in the market place, and accreditation requirements. American International Group (AIG) indicates that, based on their experience insuring colleges and universities, the top risks facing higher education are employment practices liability, student travel, and property risks (Boone, 2004). The variety and type of lawsuits affecting higher education can increase costs and cause potential harm to an institution’s reputation (Campo, 2009).

Recent tragedies on college campuses, such as the shootings at Virginia Tech and other campuses, have focused renewed attention on how colleges and universities deal with campus safety and security issues (NACUBO, 2009). In addition, the terrorist attacks on 9/11 and the infrastructure disaster caused by Hurricane Katrina have caused heightened awareness on the part of college and university administrators regarding institutional preparation for and response to crisis. “Recent natural disasters and violent acts at colleges and universities suggest that campuses remain susceptible to the fury of nature as well as man, despite the growing emphasis placed on emergency management and preparedness” (Durso & Almand, 2010, p. 1).

In addition to the potential risks and liabilities outlined above, higher education has some specific challenges not facing other organizations, such as the perception of the quality of an educational program, the attraction and retention of students, the quality and upkeep of the academic and residential infrastructure, the completion of capital projects and campaigns, athletics compliance, collaborating with other institutions, offering competitive scholarships and the distribution of federal financial, decentralized programs and online learning, and employment issues within a tenure system (Willson, et al., 2010). Academic administrators deal with liabilities and risks specific to their roles, such as traffic and airplane accidents for student and faculty travel, violence committed against faculty members by a student disgruntled over a grade, political terrorist attacks against academic researchers, accidents in laboratories and art studios, accidents at off campus learning sites such as studies abroad, internship or research sites, and natural disasters that disrupt classroom learning (Dolan, 2006; Franke, 2003).

Higher education has a unique risk as it relates to the generation and sharing of its core task: “to gather, develop, and disseminate knowledge” (Helsloot & Jong, 2006, p. 154). “The balance between the unfettered transfer of knowledge, on the one hand, and security, on the other, is a precarious one” (Helsloot & Jong, p. 155). Power et al. (2011) argue that higher education organizations “are a class of knowledge organization whose asset base is predominantly intangible” (pp. 302-3). It is difficult to quantify and calculate the probability of many of the risks facing higher education, making it “predictably impossible to arrive at a uniform hard and fast yardstick against which risk in higher education and research can be measured” (Helsloot & Jong, p. 144). For example, the “top 5 trends to grapple with in 2015” outlined by Grant Thornton in their *Fourth Annual Report* (Ladd, 2014) move beyond the neat categories of emergency management, fiscal administration, and natural disaster preparation:



- a transition from “’is college worth it” to “how do we know we’ve been effective”?
- financial sustainability
- changed business model based on the Digital Revolution
- challenges to governance
- deferred maintenance, compliance, and a “high cost to ignoring risk of any kind.”

“A search of the literature for works on the topic of risk management in higher education produces very little results” (Raanan, 2009, p. 45). “Empirical evidence about the beneficial effects of risk management [in higher education] is quite scarce” (Huber, 2011 p. 91). Huber’s conclusion about risk management in England is even more true in the U.S.:

We know about the general expectations of risk management in higher education, about The aspiration of rational behavior and about the growing legitimacy, accountability, and efficiency that risk should generate for higher education.... We know little about how universities use [risk frameworks]. How do universities identify risks? Can universities enjoy the promised benefits of better governance and accountability? (p. 2)

Many college administrators, and the public in general, still equate risk management with crisis management (Achampong, 2010; Cassidy, et al., 2001; Mitroff et al., 2006) and many IHEs do a fairly good job of planning for and responding to traditional or known risks (Mitroff, et al, 2004). “The crisis management literature frequently focuses on the reactive steps that organizations take immediately following a crisis event” (Hargis & Watt, 2010, p. 75).

Therefore, campus police have good plans in place for burglary, sexual assault response, and fire; IT has a disaster recovery plan for a server failure; and student affairs may have a plan for responding to a campus protest. The decentralized nature of college and university campuses presents obstacles to centralized planning and coordinated response to risk. “On some campuses

where centralization has been attempted, the audit committee may have oversight of risk planning. On others, the Chief Financial Officer may have an oversight role, perhaps because the insurance bill is paid from the business office” (Robinson, 2010, para 9).

While progress has been made in the development and implementation of crisis and emergency preparedness plans at colleges and universities (NCSSP, 2009; Mitroff, et al., 2006). institutional planning at IHEs still occurs in a loosely integrated manner and most crisis and emergency plans are not tied systematically or strategically to other planning and risk assessment measures such as investments, financial planning, audits, curricular development, and enrollment planning (Abraham, 2013; AGB & UE, 2009, 2014; NCSSP, 2009). Slowly, that is beginning to change with the emergence of ERM and its acceptance at U.S. colleges and universities.

### **Enterprise Risk Management**

“The rise of risk management in recent years has drawn attention from several commentators who have been marveling at the increasing spread and codification of risk practices under the term enterprise risk management (ERM)” (Mikes, 2009, p. 19). There is an increasing focus on risk management in general and on the adoption of integrated risk management practices specifically. In the corporate sector, interest in the integrated and more strategic concept of ERM has grown significantly in the past [20] years (Arena, et al., 2010; Fox, 2011a). “During the first decade of the 21<sup>st</sup> century, ERM has become identified as a best management practice for organizations of all types, including for-profit financial and non-financial organizations, non-profits, universities and government organizations (Lermack, 2008, p. 2). ERM has emerged as the new paradigm of risk management (Beasley, et al., 2005; Lam, 2003).

However, even with all of the interest and attention garnered by ERM, and the proliferation of organizations adopting ERM programs, “risk management approaches are largely unproven and still emerging” (Mikes & Kaplan, 2014, p. 3). Despite the abundance of principles, guidelines and standards, it would be incorrect to conclude that “risk management is a mature discipline with proven unambiguous concepts and tools that need only regulations and compliance to be put into widespread practice” (Mikes & Kaplan, p. 3). “ERM is an evolving discipline focused on a complex and still imperfectly understood subject” (Fraser, et al., 2015, p. xiii).

### **Definition of ERM**

ERM first “entered the business lexicon two decades ago, and has since developed into the gold standard of corporate governance practices” (Blaskovich & Taylor, 2011, p.5). The term ERM is synonymous with integrated risk management, business risk management, holistic risk management, enterprise-wide risk management, and strategic risk management” (D’Arcy, 2012; Drew, Kelley, & Kenrick, 2006; Liebenberg & Hoyt, 2003). As opposed to traditional risk management, where risks are identified and responded to on an ad hoc basis or in silos, ERM “is a process designed to identify, assess and prioritize, and prevent and manage the key risks that may have an impact on the ability of an enterprise to attain their long-term strategies and objectives” (Lermack, 2008, p.2). ERM also considers the “upside” of risk or opportunity (Abrams, et al., 2007). “Risk management should not be a separate function of the business process; rather, managing downside risk and taking the opportunities from upside risk should be the key management goals....The effective management of risk is truly an interdisciplinary exercise grounded on a holistic framework” (Acharyya, 2008, p. 39).

The Casualty Actuarial Society (CAS) (2003) defines ERM as “the discipline by which an organization in any industry assesses, controls, exploits, finances and monitors risk from all sources for the purpose of increasing the organization’s short- and long-term value to its stakeholders” (p.8). NACUBO defines ERM as “any issue that impacts an organization’s ability to meet its objectives. Increasingly, ERM is understood as a “process that holistically considers risk on an organization wide basis” (Robinson, 2007, p. 38). Many companies that have adopted the ERM model utilize the ERM definition provided by COSO:

Enterprise Risk Management is a process, effected by an entity’s board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of the entity’s objectives.

Others may utilize the ISO 31000 definition: *the effect of uncertainty on objectives*. Abrams et al. (2007) noted that a study of various ERM definitions reveals three common characteristics:

*Integrated* – ERM must span all lines of business.

*Comprehensive* - ERM must include all types of risk.

*Strategic* – ERM must be aligned with overall business strategy (p. 221).

Mikes and Kaplan (2014) propose the following definition of ERM, based on the emerging characteristics of ERM practices:

Enterprise risk management consists of active and intrusive processes that (1) are capable of challenging existing assumptions about the world within and outside the organization; (2) communicate risk information with the use of distinct tools (such as risk maps, stress tests, and scenarios); (3) collectively address gaps in the control

of risks that other control functions (such as internal audit and other boundary controls) leave unaddressed; and, in doing so, (4) complement – but do not displace – existing management control practices. (p. 14)

## **Evolution of ERM**

Although there are many distinct “drivers” that lie behind the establishment of a formal ERM program (or that trigger the re-organization and prioritization of existing risk management efforts), the drivers can be classified into one of three categories: (1) requirements of regulators and external bodies; (2) reaction to internal or external events; or (3) proactive decision (Mehta, 2010).

Most ERM programs, particularly in the corporate sector, have their roots in compliance and internal controls. In response to several well-publicized significant business failures in the 1980s and 1990s that occurred as a result of high-risk financing strategies, regulators, ratings agencies, stock exchanges, and corporate governance oversight bodies insisted that corporate senior managers and boards take greater responsibility for managing risks in an integrated and institution-wide manner (CAS, 2003; URMIA, 2007; Whitfield, 2003). Governments in several European countries took actions and imposed regulatory requirements regarding risk management earlier than the U.S. (Abrams, et al., 2010; Demidenko & McNutt, 2010). In 1992, The *Financial Aspects of Corporate Governance* (also referred to as the Cadbury Report) was issued in England, suggesting that governing boards are responsible for setting risk management policy. “These new guidances explicitly linked internal controls to risk management and extended beyond the financial sphere, pressuring companies to embrace a broader range of risks in their analysis” (Arena et al, 2010, p. 3).

In the U.S., the Treadway Commission was formed to study the business failures from the period 1985 – 1987, presenting their findings in their 1987 *Report of the National Commission on Fraudulent Financial Reporting*. As a result of this initial report, the Committee of Sponsoring Organizations (COSO), otherwise known as the Treadway Commission, was formed, comprised of several organizations including the American Institute of Certified Public Accountants (AICPA), the American Accounting Association (AAA), the Financial Executive Institute (FEI), the Institute of Internal Auditors (IIA), and the Institute of Management Accountants (IMA). They issued *Internal Control – Integrated Framework* in 1992, which was called a “landmark study” with “far reaching effects on the financial community” (Steinberg & Tanki, 1992, para 1). In 2002, the Public Company Accounting Reform and Investor Protection Act (otherwise known as Sarbanes-Oxley, or SOX) was enacted in the U.S. In 2004, COSO issued an update to their integrated framework. In 2009, the Securities and Exchange Commission (SEC), placing a greater emphasis on risk assessment, proposed a new rule to require corporations (specifically their CEOs and boards) to “report in depth on how their organizations identify risk, set risk tolerances, and manage risk/reward tradeoffs throughout the enterprise” (Minsky, 2009).

In the corporate sector, organizations that are *strong* on the ratings scales demonstrate an enterprise-wide view of risk and organizations that are *excellent* can demonstrate risk/reward optimization (Moody’s, 2008). “Comprehensiveness of risk management practices” is one criteria for a positive rating (Standard & Poor’s, 2012). By 2006, analysts for Fitch, Moody’s and Standard & Poor’s had suggested expanding the use of the COSO framework beyond the energy and financial services firms and in 2008, “indicated that their firms intended to include ERM factors in the rating process for higher education institutions” (Gallagher, 2008, p. 6). While

colleges and universities are not bound by regulators to report on risk management as their corporate counterparts, in presentations regarding ERM to college and university audiences, “the ratings agencies have consistently struck a common theme of using ERM as an indicator of robust business practices to allow firms to avoid surprises” (Gallagher, 2009).

“While academic institutions have been teaching [comprehensive] risk management to others...very little ‘self-use’ has been attempted” (Raanan, 2009, p. 43). While most colleges and universities have “crisis plans” in place, most of them are not integrated or strategic in nature. Sixty percent of institutions do not use comprehensive, strategic risk assessment to identify major risks to mission success and only five percent indicated have adopted “exemplary practices for management of major risks” (AGB & UE, 2009). Even for those institutions with “risk management” plans, most decisions continue to be made in “...silos, which leads to the creation of multiple frameworks for governance, infrastructure, and processes; fragmented risk and control activities; potential gaps in overall risk coverage; and duplication of effort” (Willson, et al., 2010, p. 65-6).

In higher education, most presidents, chancellors and boards of trustees do not prioritize risk management or crisis management, especially as part of an integrated planning model, even though incidents that might occur on their campuses may result in death, financial loss or significant damage to reputation (Abraham, 2013; Barnds, 2011; AGB & UE, 2009). “Higher education leaders and managers are lacking proficiency in skills that historically have been viewed essential in the ‘for-profit corporate sector’ to effectively deal with the changing business environment” (Whitfield, 2003, p. 9-10).

The 2009 AGB and UE report, *The State of Enterprise Risk Management at Colleges and Universities Today*, encourages institutions of higher education (IHE) to define risk more

broadly and to develop a culture of evaluating and identifying risk at multiple levels, including the active leadership of the president and board of trustees. AGB and UE's 2014 report notes that in 2013, 45 percent of survey respondents "strongly agreed" that ERM is a priority at their institution compared to 2008 when only 41 percent "mostly agreed." However, they also noted that ERM processes are not firmly established in higher education. "As changes in the operating landscape heighten risk elements considerably, universities now increasingly look toward improving their internal capabilities and resources to better manage these risks" (Halim, 2007, p. 3). While risk management related federal compliance regulations are not in place for higher education in the U.S, many colleges and universities have voluntarily chosen to adopt ERM frameworks, "some in anticipation of being required to comply in the future; others believing that such compliance represents a best practice in risk management" (URMIA, 2007, p. 1). A Gallagher think tank of risk management practitioners in higher education revealed that while campus administrators were fairly well-informed about ERM and its benefits, "they remained unclear or intimidated by the process of implementing ERM" (2009, p. 1).

### **ERM Frameworks and Standards**

The use of standards and frameworks is claimed to proactively improve organizational resilience and sustainability (Fox, 2011b). A *framework* is a structure for supporting or enclosing something, a skeletal support used as the basis in something being constructed (RIMS, 2011b). A risk management framework is described as "an organizational specific set of functional activities and the associated definitions that define the risk management system in an organization and also the relationship to the risk management organizational system" (Dafikpaku, 2011, p. 6). RIMS defines a framework as "1) a structure for supporting the organization's strategic and operational objectives and as 2) a system or group of interacting,



interrelated, or interdependent elements, such as ideas, principles, methods or procedures, that form a complex whole” (p. 3).

*Standards* are a collection of best practices and guidelines, developed collaboratively and over time, that can be used to improve management systems, processes and procedures. They are not regulatory guidelines or requirements, nor do they often include a set of “how tos” for implementation (RIMS, 2011b). RIMS defines a standard as “an established norm or requirement, usually a formal document that establishes criteria, methods, processes, and practices under the jurisdiction of an international, regional, or national standards body” (p. 3). Standards are voluntary, generally developed with diverse input (RIMS, 2011b).

Standards and frameworks differ from regulations, in that they are not legislated, but are often used by auditors to ensure best practices are being utilized by organizations (RIMS, 2011b). “That any single framework could begin to tame the messy assessment, appraisal and management tasks of complex and/or global risk problems with the hope of offering effective guidelines for governance is certainly a bold claim” (Cantor, 2008, p. 87). According to RIMS (2011b), the standards and frameworks most widely adopted by organizations are ISO 31000:2009 (Risk Management – Practice and Guidelines), OCEG “Red Book” 2.0:2009 (GRC Capability Model), BS 31100:2008 (Code of Practice for Risk Management), COSO: 2004 (Enterprise Risk Management – Integrated Framework), FERMA: 2002 (A Risk Management Standard), and SOLVENCY II: 2012 (Risk Management for the Insurance Industry). In higher education, the most widely used frameworks for ERM are COSO: 2004 – Risk Management Integrated Framework and ISO 31000 Risk Management - Principles and Guidelines.

**COSO: 2004 Risk Management – Integrated Framework.** In 2004, the Treadway Commission formalized their findings in the report *Enterprise Risk Management—Integrated*

*Framework.* This report “provided a common language regarding controls and created an integrated control framework for managing business risks” (URMIA, p. 4). The “emergent, all-encompassing approach” (Arena et al., 2010, p. 3) “provided a common language regarding controls, and created an integrated control framework for managing business risks” (URMIA, p. 4). Abrams et al. (2007) noted that the COSO ERM model has “become a de facto standard for accounting” (p. 220).

The Executive Summary of the COSO report noted that “the underlying premise of enterprise risk management is that every entity exists to provide value to its stakeholders” (p. 1) and summarizes the key elements of ERM as: aligning risk appetite and strategy; enhancing risk response decisions; reducing operational surprises and losses; identifying and managing multiple cross-enterprise risks; seizing opportunities; and improving deployment of capital. COSO was the first to organize risks into the four key areas commonly utilized by insurers and companies to categorize risk: Strategic, Operations, Reporting and Compliance. (In COSO’s original 2002 report, “reputational” risk was included as a fifth category, but was revised in the 2004 report to be integrated into the other four categories). COSO also outlined the eight inter-related components or steps of enterprise risk management, which are “derived from the way management runs an enterprise and are integrated with the management process” (p. 3): (1) Internal Environment; (2) Objective Setting; (3) Event Identification; (4) Risk Assessment; (5) Risk Response; (6) Control Activities; (7) Information and Communication; and (8) Monitoring. In addition, the COSO framework also noted that “everyone in an entity has some responsibility for enterprise risk management” (p. 6) and that risk management responsibilities should be made clear, from the board of directors to the front line workers in an organization. The COSO report also points out that there is a “direct relationship between objectives, which are what an entity

strives to achieve, and enterprise risk management components, which represent what is needed to achieve them” (p. 4).

Those inter-relationships are depicted in a three-dimensional matrix, utilized by many organizations to provide a visual representation of their ERM framework (see Figure 2). The four objectives (strategic, operations, reporting and compliance) are represented by the vertical columns; the eight components by the horizontal rows; and an organization’s units or organizational divisions by the third dimension. “This depiction portrays the ability to focus on the entirety of an entity’s enterprise risk management, or by objectives category, component, entity unit, or any subset thereof” (COSO, 2004, p. 5). Because the “COSO report provided a common language regarding controls and created an integrated control framework for managing business risks” (Whitfield, 2003, p. 13), the ERM concepts outlined from COSO form the basis for the majority of the ERM models utilized in corporations.

## COSO ERM Framework

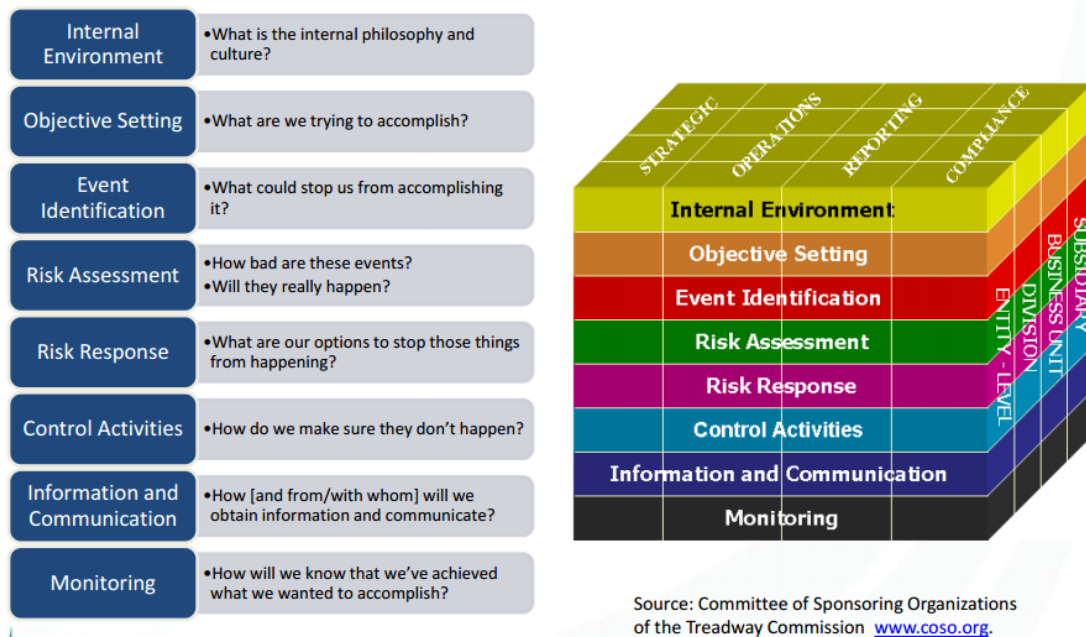


Figure 2. COSO integrated framework.

The COSO framework is well known to many risk practitioners and has gained considerable influence because it is linked to Sarbanes-Oxley requirements for U.S. corporations. While the Securities and Exchange Commission (SEC) does not require a specific framework for the “enterprise-wide” evaluation of risk, it does reference the COSO reports and model; therefore, many corporations have adopted the specific ERM model outlined by COSO. Based on an evaluation of over 40 firms, “there appears to be an increasing groundswell of opinion that the [COSO] framework may not be as relevant for a post-recessionary environment as it was upon first publication” (Mehta, 2010, p. 19). The 2013 revised model is an attempt by COSO to review, refresh, and modernize the original Framework, ensuring it remains relevant (McNally, 2013).

**ISO 31000: 2009 Risk Management – Principles and Guidelines.** In November 2009, the Geneva-based International Organization for Standardization (ISO) issued a standard for risk management titled *Risk Management: Principles and Guidelines*. The basis for ISO 31000 is that all organizations exist to achieve their objectives, that internal and external factors affect those objectives, and that the effect of that uncertainty is risk (RIMS 2011b). The ISO standards outline a list of the attributes of effective risk management, which includes improving corporate governance, financial reporting, and stakeholder trust (Gjerdrum & Salen, 2010). The standard states that it can be used by any public, private, or community enterprise, association, group or individual and it is not intended as a compliance device (Gjerdrum & Salen; RIMS 2011b). The ISO 31000 standard “targets the quality of an organization’s management and suggests risk management frameworks, processes, and activities that should be followed to help organizations better achieve their objectives” (Shortreed, 2010, p. 8).

The principles in ISO 31000 (see Figure 3) establish the values and the philosophy of the process, linking the risk management process to the organization's strategic goals. The framework emphasizes integrating risk management into the organization so that it is supported, iterative, and effective (Association of Insurance and Risk Managers, 2010; Campbell, 2013; Gjerdrum & Salen, 2010; McClean, 2010; Shortreed, 2010). The risk management process outlines the five steps of risk management: identify risks, analyze risk treatment options, select the best response, implement risk mitigation and controls, and monitor results. While ISO 31000 distinguishes between the risk management framework and the risk management process, in practice, the two are often combined (Fraser, 2014).

## ISO 31000 - Risk Management

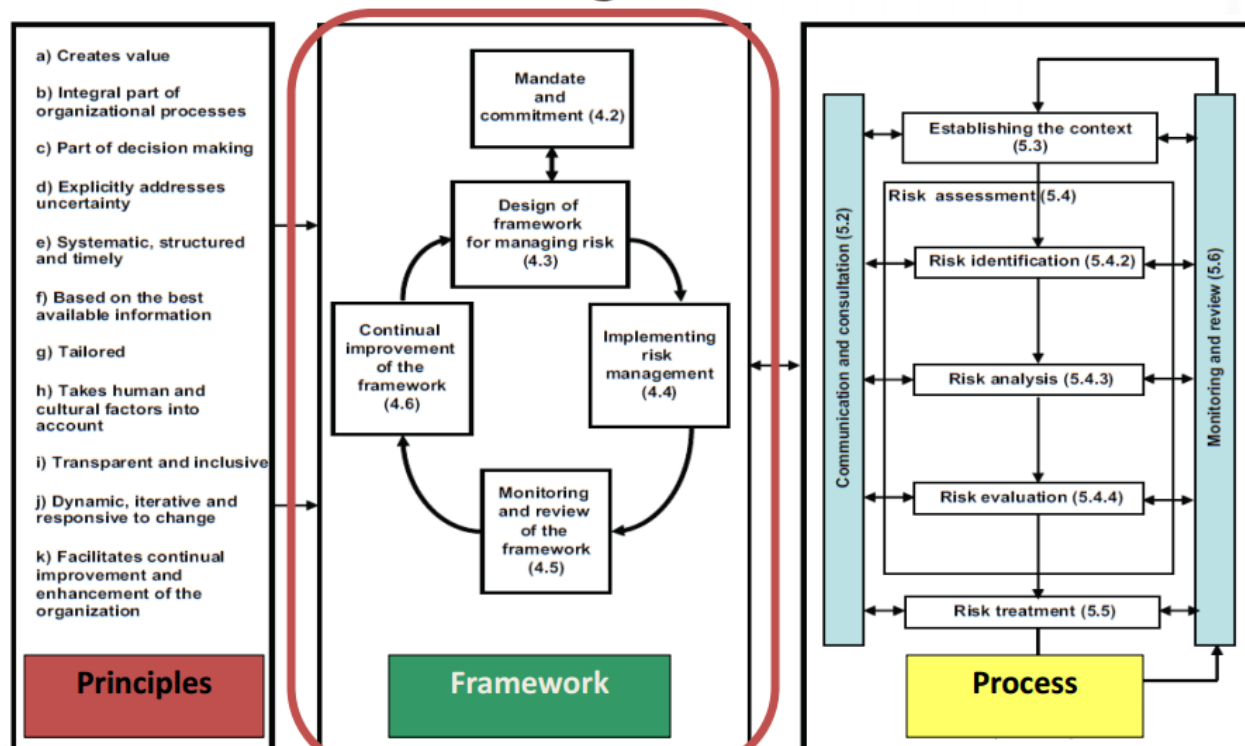


Figure 3. ISO 31000: 2009 framework. Source: ISO 31000: 2009, *Risk management-principles and guidelines*.

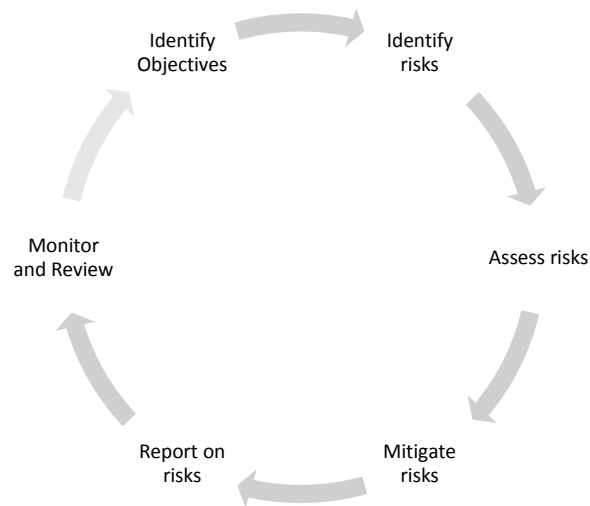
## **Variability of ERM Approaches**

COSO and ISO 31000 have many common elements, including a definition of risk, discussion of the scope of risk management within an organization, and how that ties to strategic objectives, delineation of the risk management process and steps, and a set of risk management principles. Even with frameworks such as COSO and ISO:31000, and regulatory requirements for risk management reporting in the corporate sector, there is wide variability in the types of programs using the ERM term (Mikes; 2005, 2009; Mikes & Kaplan, 2014; Power, 2009) “Just as there is no single accepted definition of enterprise risk, so there is no single, universal approach to the management of that risk” (Mehta, 2010, p. 13). Forty-four percent of respondents in the RIMS 2011 survey responded that their ERM program does not follow any particular standard or framework. In higher education, ERM programs do not follow a “cookie cutter approach” (Gurevitz, 2009).

## **ERM Process**

Risk practitioners and researchers identify several elements as necessary for an effective ERM program, including clear communication of the objectives and risk management policies throughout the organization (COSO, 2004; Cendrowski & Mair, 2009; Deloitte, 2011; ISO 2009) and the necessity of sharing a common risk language within the organization (Aabo et al., 2005; CAS, 2003; Shenkir & Walker, 2008). Regardless of definition or framework, most risk management processes (as opposed to quantitative statistical models often used in finance) follow a similar process (see Figure 4): (1) identify objectives, (2) identify risks; (3) assess risks, (4) respond to or mitigate risks, (5) report on risks, and (6) monitor and review the risk management process (Cassidy, et al., 2001; CAS, 2003; COSO, 2004; Curtis & Carey, 2010;

Emblemsvag, 2010; Fraser, et al., 2015; ISO 31000, 2009; Keith & Malatesta, n.d.; Mehta, 2010; Muelbrook, 2002; Ruzic, Dimitrijevic, & Dakic, 2014).



*Figure 4. Risk management cycle and process.*

### **Objective Setting**

Both COSO and ISO 31000 start with the premise that every “enterprise” exist to provide value for its stakeholders and that internal and external factors can impact those objectives, causing uncertainty or risk. Therefore, the ERM process begins with articulating or setting the strategic objectives for the organization before starting the rest of the risk management process. Risk management should not exist as a separate function, divorced from the organization’s strategic objectives, decision-making, and business functions; ideally, ERM is an integrated component of a governance process that includes awareness of and response to risk (Achampong, 2010; Acharyya, 2008; NACUBO & AGB, 2007; Beasley, et al., 2012; Carver, 2007; COSO, 2009; Esaaides, 2013; Fraser, 2014b; Gates, 2006; Lermack, 2008; Marchetti, 2011; Narvaez, n.d.; PriceWaterhouseCoopers, 2009; RIMS, 2015; URMIA, 2007). Fraser and Simkins (2007) caution that it is a mistake to undertake risk management as an end unto itself, independent of the organization’s strategic objectives. “Strategy is the glue that binds the [risk

management] approach to the objective – and an institution’s approach should take risk into consideration” (NACUBO & AGB, 2007, p. 5). “ERM should be proactive and its focus should be on the organization’s future” (Acharyya, 2008, p. 39). In higher education, specifically, Achampong notes: “It is both logical and desirable to integrate risk management and strategic planning into one coordinated, holistic process to create a synergistic effect that leverages the benefits of both processes and makes them mutually reinforcing (p. 23).

### **Risk Identification**

After objective setting, the next step in the risk management process is to identify risks unique to the organization. This process can be initiated by the CRO, a risk committee, or senior administrators and generally involves the use of techniques such as interviews, surveys, review of existing documents, and workshops across the organizations, resulting in a risk portfolio or risk register (Aabo, et al., 2009; Abraham, 2013; NACUBO & AGB, 2007; COSO, 2004; Fraser, 2013; Gallagher, 2009; ISO 31000, 2009; Raanan, 2009).

The risk identification process involves a scan of both the internal and external environments, including local, state and federal trends for the industry (Gallagher, 2009; Marchetti, 2011b). Many IHEs begin their ERM process by generating a list of institutional risks, however, this can be inefficient when, after more than a decade of ERM programs on campuses, many comprehensive lists exist (Abraham, 2013). Gallagher (2009) recommends eliciting risk concerns from the governing board or senior leadership and then testing those with campus constituents. Another approach is for organizations to start with directors at an operational level, asking them to identify risks in their areas and then evaluating those risks for common themes and categories (Gallagher, 2009). “Risk identification is not a ‘one and done’ exercise, but a



process that should be incorporated into the ongoing governance and management of an institution” (Abrams, 2013, p. 10).

### **Risk Assessment**

After the risks of greatest concern are identified, those risks are evaluated (COSO, 2004; Dafikapaku, 2001; Fraser, 2013; Gallagher, 2009; ISO 3100, 2009; Marchetti, 2011a; Raanan, 2009). Each risk must be assessed “for impact as well as considering the organization’s vulnerability to each risk” (Marchetti, 2011a, p. 40). Risks are evaluated for likelihood (or frequency) and impact (or severity) on the organization’s objectives (Marchetti, 2011a; Mehta, 2010). The risk assessment process may include qualitative and quantitative techniques.

Generally, an organization evaluates and prioritizes the risks in light of its risk appetite and tolerance for uncertainty set forth in the risk management policy (COSO, 2009; Gallagher, 2009; Fraser, 2013). For higher education, Gallagher recommends asking the following questions to determine risk appetite:

- What risks will the institution not accept? These might include academic quality compromises, regulatory compliance fines, and electronic data breaches.
- What risks will the college or university take with any new initiatives? Examples are lower than desired student registrations for a new academic program, and anticipated controversy over a new research project.
- What risks will the institution accept for competing objectives? An example of competing objectives might be a high volume of research grants versus fewer grants that present greater potential for technology transfer revenue. (p. 30)

## **Risk Response**

Risk response turns the identified, evaluated, and prioritized risks into action plans (Bubka & Coderre, 2009; Curtis & Carey, 2010; NACUA, 2010; Raanan, 2009). At this stage, key risk indicators can be tied directly to key performance indicators (Beasley, Branson, & Hancock, 2010b; Marchetti, 2011a). The treatment for the risks can fall into one of five categories (Gallagher, 2009; Marchetti, 2011b):

- Reduction: reduce the likely frequency or severity to an acceptable level
- Control: minimize damage after a loss has occurred
- Transfer: assign responsibility for performing a risky activity to another party (insurance and indemnification)
- Acceptance: assume responsibility (after treatment is in place)
- Avoidance: eliminate, or never launch, the activity because the risk is too great

At this stage, a risk owner is often identified and is responsible for consulting with necessary constituents and developing a risk mitigation plan.

## **Monitoring and Review**

Having gone through the previous steps, the organization then reviews its risk management program “to ensure existing risk assessments reflect current operations, threats, probability, impact, and countermeasures” (Loghry & Veatch, 2009, p. 34). The monitoring and review process is essential to ensure that the risk management program is up to date and that it is working effectively throughout the organization (CAS, 2003; Loghry & Veatch; Shenkir & Walker, 2011). “The successful ERM program will include regular progress reports and comparisons to previous risk assessments so changes and refinements can be made as appropriate” (CAS, p. 34). A communication plan for various constituents is often a part of this stage in the process (Marchetti, 2011b).

## Risk Maturity

Most risk maturity models are classified into four or five levels, starting from the traditional or ad hoc approach to risk management and evolving to the higher level where risk management is fully integrated into the business practices and strategic objectives and decision-making of the organization see Table 1). Organizations evolve their response to risk and compliance along an ERM maturity continuum (Abrams, et al.; Beals, Fox, & Minsky, 2015; Chapman, 2011; Mondo & Giorgino, 2013; Wieczorek-Kosmala, 2014). “The typical ERM program is still in the comparatively early stage of development – whether judged by its functional maturity (how well established it is relative to principles that would constitute ‘best practice’) or simply by the length of time for which it has been in place” (Mehta, 2010, p. 7). Regardless of the terminology distinctions in the varying models, the following factors are commonly seen in all of them: the capability to identify, gauge, prioritize and manage risks; the degree to which management decision-making has a risk component; the depth to which risk awareness is ‘embedded’ or ‘systematized’ in day to day operations; and the engagement of stakeholders in the ERM program (Mehta)

Table 1

### *Overview of Risk Management Maturity Models and Levels*

<b>Author</b>	<b>Traditional or “pre” ERM</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>
Hillson (1997)		Naïve	Novice	Normalised	Natural
Hopkinson (2000)		Naïve	Novice	Normalised	Natural
RIMS (2006)	Ad hoc	Initial	Repeatable	Managed	Leadership
Deloitte (2006)	Tribal/ Heroic	Specialist Silos	Top-down	Systematic	Risk Intelligent

Table 1—Continued

<b>Author</b>	<b>Traditional or “pre” ERM</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>
Abrams, et al (20007)		Comply	Improve	Improve	Transform
Ciorciari & Blattner (2008)	Very weak	Poor	Mid	Good	Optimized
Demindenko & McNutt	Ad hoc/not in compliance	Isolated activities	Coordinated Activities	Coordinated activities	Holistic ethical system
AON (2010)		Initial	Basic	Defined/ Operational	Advanced
Marks (2011)	Ad hoc	Preliminary	Defined	Integrated	Optimized
Batenburg, Neppelenbroek, & Shahim (2014)		Forming	Developing	Normalized/ Established	Optimized

*Note.* Numerous authors have discussed “risk maturity models” against which programs ERM can be measured and evaluated (Aon, 2010; Abrams, et al., 2007; Battenburg, Neppelbroech, & Shahim, 2014; Ciorciari & Blattner, 2008; Deloitte, 2006; Hillson, 1997; Hopkinson, 2000; Marks, 2011; Mehta, 2010; RIMS, 2006).

### **Responsibility for ERM**

Responsibility for ERM takes place in various places within an organization including internal audit, the president or CEO, the board, the risk manager and/or a risk management committee.

#### **Internal Audit**

Internal audit’s primary role is to provide assurance and consulting services within an organization (IIA, 2004; Selim & McNamee, 1999). Historically, when there was no obvious role within the organization to manage risk, internal audit administrators or audit committees were filling that gap because risk management traditionally had a financial focus (Fraser & Henry, 2007). The Institute of Internal Auditors (IIA) declares that “internal auditing is an

independent, objective assurance and consulting activity. Its core role with regard to ERM is to provide objective assurance to the board on the effectiveness of risk management” (p. 3). If internal auditors report to finance functions, they may be perceived as an extension of that function and their independence may be impaired” (Fraser & Henry, 2007, p. 397). IIA concludes that the appropriate role of internal audit related to ERM focuses on activities such as assuring that risks are correctly evaluated, evaluating the risk management process and the reporting of risks, and reviewing the management of risk. Inappropriate roles include setting the risk appetite, imposing specific risk management processes, making decisions on risk responses, and having ultimate authority or accountability for risk management. With caution, internal audit can play a role in coordinating ERM activities, maintaining the ERM framework, and facilitating the identification of risks by management.

### **CEOs, Presidents, and Governing Boards**

Governing board audit committees are increasingly involved in the ERM function (Deloitte, 2005; Demidenko & McNutt, 2007; Fain, 2007; Hodge, 2002; Robinson, 2007; Verschoor, 2002). In addition to the primary function of oversight for financial reporting, respondents indicated that their audit committee also has responsibility for oversight of financial risks, legal/regulatory compliance risks, and IT security risks (Stefee, 2010). Some have raised questions about the appropriateness of the Audit Committee in the ERM process, pointing out that it is difficult for them to provide more than a cursory review given issues of time and expertise (Spira, 2003). “The literature indicates that audit committees are becoming increasingly involved in ERM but there are doubts about the robustness of the challenge that they can offer to ERM effectiveness” (Fraser & Henry, 2007, p. 399).

The expectations of the president or CEO of a corporation to “champion” the risk management agenda, as well as be responsible for its administration, has also evolved (Achampong, 2010; AGB & UE, 2014; Fraser, 2014b; Fraser & Simkins, 2009; Glover & Prawitt, 2012; Immerwahr, 2011; Sambolin, 2010; Whitfield, 2005; Willson, et al., 2010). Referred to by COSO as the “tone at the top,” the involvement and leadership of senior management and the board of directors is often cited as key to an effective ERM program (Achampong, 2010; Beasley & Frigo, 2007; Farrel & Gallagher, 2014; Lam, 2003; Muelbrook, 2002; Sambolin, 2010; Shenkir & Walker, 2011). A letter to the shareholders of Berkshire Hathaway, Inc. from Warren Buffett stated that “a board of directors is ‘derelict if it does not insist that its CEO bear full responsibility for risk control’” (Steffee, 2010). When asked if they discussed risk exposures “a great deal,” 39% of U.S. boards responded in the affirmative, while over 60% of global respondents indicated they did (Beasley, Branson, & Hancock, 2010a). Garratt (2005) observed that “most board directors do not budget time for, nor have little sustained interest in, thinking regularly and rigorously about the future health of their business” (p. 27). While board and senior management support are key drivers to effectively implement ERM, they also appeared as key problem areas in maintaining the momentum of ERM (Rogers, Simkins, & Schoenning-Thiessen, 2010).

The importance of the commitment and leadership of the president in setting the agenda for and supporting ERM is considered critical to success in the higher education sector (Abraham, 2013; Tufano, 2011). Only 29% of board members “mostly agreed” that their governing board monitors institutional risk through regular, formal reports from administrators (AGB & UE, 2009). In response to the Freeh Report in the aftermath of the Sandusky scandal at Penn State, Karen B. Peetz, chair of Penn State’s board said in a news conference: “We should

have been risk managers in a more active way” (Stripling, 2012, para 2). A college trustee explained that risk management will not rise to a strategic focus “until it can be demonstrated that [it] provides a distinct competitive marketplace advantage” (Whitfield, 2003, p. 5).

### **Risk Manager**

“Traditional risk managers frequently focus on the probability of maximum loss, the largest loss that could reasonably be expected to occur” (D’Arcy, 2001, p. 14). “Twenty years ago, the job of the corporate risk manager – typically, a low-level position in the corporate treasury – involved mainly the purchase of insurance” (Nocco & Stulz, 2006, p. 8). To reflect the increasing responsibilities of the risk manager, Lam (1999) coined the term “chief risk officer” (CRO) over fifteen years ago and outlined the responsibilities for the individual assuming that role in the corporate sector, including providing overall leadership, vision and direction for risk management programs; establishing a framework for risk management in the organization; policy development; and implementing a set of risk metrics and reports. The RIMS (2008) *Risk Management Professional Growth Model* articulates a comprehensive set of abilities and knowledge, skills and attributes, and distinguishing features required of risk managers at the entry, intermediate, senior and executive level.

In a growing number of corporations, the risk management function is a senior executive overseen by the CEO or a board of directors (Nocco & Stulz, 2006). Eighty-six percent of global financial institutions have a CRO or equivalent position, up from 73% in 2009 and 65% in 2002 (Deloitte, 2011). Today, CROs “believe their role to be primarily that of a process leader who ensures that risk is being identified at the senior executive level but managed at the business unit level” (Demidenko & McNutt, 2010, p. 809).

While risk managers in the corporate sector are increasingly being hired at the executive or governing board level (Liebenberg & Hoyt, 2003), at this point, in higher education, oversight for risk management practices often remains the responsibility of the CFO or a risk management committee. Some IHEs have a designated risk manager, but many risk managers are still “positioned organizationally below the executive level and participate in institutional objectives only through influence and networking” (Harwell, 2003, p. 18). Traditionally, the risk manager’s role has been viewed as a support function associated with insurance, even though risk managers may review contractual relationships and advise senior administrators on liability and litigation (Eick, 2003). Recently, there has been a trend toward hiring CROs at IHEs in order to handle the increasingly complex risk profile of “safeguarding what is essentially a small city” (Kelderman, 2009; Wade, 2011, para 3).

### **Benefits and Critiques of ERM**

While more organizations are striving to link ERM to performance and value, they still find it difficult to demonstrate tangible benefits such as the effectiveness on corporate performance or reputation, with very few corporations being able to quantify the value (Rogers, et al., 2010). The literature is rife with claims that using an ERM process will benefit an organization. Chief among the claims are that ERM will increase the likelihood of achieving organizational objectives by linking risk identification, evaluation, and response to strategic planning (Abraham, 2013; Acharyya, 2008; Beasley, et al., 2012; CAS, 2003; COSO, 2004; Esaides, 2013; Fraser, 2013; IIA, 2010; ISO 31000, 2009; Moody’s, 2011; Narvaez, n.d.; Williamson, 2007); maximize stakeholder confidence and trust (ISO 31000, 2009; Liebenberg & Hoyt, 2003; Nocco & Stulz, 2006); improve value and competitive position and advantage (Barton, Shenkir, & Walker, 2002; Gallagher, 2009; Liebenberg & Hoyt, 2003; Kremer, 2012;



Nocco & Stulz, 2006); improve decision-making and governance throughout the organization by reducing gaps and silos (Arena et al., 2011; CAS, 2003; COSO, 2004; Demidenko & McNutt, 2010; Esaiades, 2013; Grace, et al., 2014; ISO 31000, 2009; Kleffner, et al., 2003; Liebenberg & Hoyt, 2003; Kremer, 2012; Moody's, 2011; Narvaez, n.d.; RIMS, 2015; Willson, et al., 2010); improve the consistency with which risks are identified, evaluated, and responded to at all levels of the organization (AON, 2009; Beasley, et al., 2009; COSO, 2004; Dickerson & Fallon, 2004; Gallagher, 2009; IIA, 2010; ISO 31000, 2009); help an organization define its risk appetite and risk tolerance levels (COSO, 2004; Fraser & Simkins, 2007; ISO 31000, 2009; Gallagher, 2009) promote and stimulate innovation and allow for seizing emerging opportunities (Culp, 2013; COSO, 2004; ISO 31000, 2009); increase ratings with ratings agencies (Fraser & Simkins, 2007; Gallagher, 2009; Kremer, 2012; Moody's, 2011; Standard & Poor's, 2008); and increase capital efficiency and decrease financial surprises (Beasley, et al., 2008; COSO, 2004; Demidenko & McNutt, 2010; Gallagher, 2009; Grace, et al., 2014; Hoyt & Liebenberg, 2011; Narvaez, n.d.).

Although there are many proponents of ERM because of its purported integrated and strategic framework, there are also detractors and those who question certain aspects of its viability. "If ERM is the solution to unmitigated risk, it is shocking to note that some of the most financially-literate executives at venerable Wall Street institutions made some of the most egregious risk miscalculations in history" (Barton, Shenkir, & Walker, 2010, p. 20). There is "emerging evidence that supports the view that a large percentage of ERM implementations to date have been sub-optimal at best, and fatally flawed at worst" (Leech, 2012, p. 3). Fraser and Henry (2007) argue that there are number of concerns with ERM including: gaps in the system due to pre-occupation with the bureaucracy of cataloguing leading to oversight of one major risk that could significantly impact an organization; risks are difficult to evaluate objectively; and the

formalization of the ERM process itself leading to regulations and bureaucracy, creating its own potentially negative consequences.

Another criticism is that due to ERM's origins in the field of accounting with the concept of *internal control*, its design is narrowly focused on rule-based compliance, failing to become "embedded in decision-making and governance processes at an organization (Power, 2009). Some have argued that ERM has less to do with managing risk and more to do with serving the professional interests of accountants and regulators (Martin & Power, 2007) and rewarding senior executives on bottom line performance measures (Whitfield, 2003).

There are critiques of the "purely subjective approaches" noting that risk analysis by different groups can produce widely varying conclusions (Emblemsvag, 2010, p. 249). Evaluating the effectiveness of ERM and its components requires judgment, which can be problematic (Williamson, 2007). "Subjective views of how likely a potential event is, what its impact might be, and how it can be managed, may be influenced by interests and power. There is also subjectivity and political interest in identifying and interpreting the risk attitude for an organization" (Williamson, p. 1104). There is a substantial body of research that concludes that "over-reliance on quantitative measures can provide a false sense of security (Koenig, 2008). "Risk and uncertainty make us uneasy...Quantifications are one manner by which we try to turn subjective risk assessments into objective measures. We attempt to convert uncertainty, which is not measurable, into risk, which is believed to be measureable" (Koenig, p. 15).

"A lot of organizations shy away from ERM because they can't see how it provides anything other than just a list of the exposures we're already aware of" (Esaiades, 2013, p. 1). Often, in ERM implementation, not enough attention is paid to other management practices already in place, "leaving open the possibility that firms introduce ERM merely as a compliance

device, or a self-contained internal control activity, but without assimilating it more closely into business processes” (Arena, et al., 2010, p. 3). “CEOs said they viewed ERM as an external accountability device that does not impact on managers’ decisions and operations” (Arena et al., 2010, p. 2). And while he does not specifically use the term ERM, Huber (2009) critiqued the mandatory higher education institution-wide risk management compliance reports required in England, stating that “a higher education institution changes when a framework of risk-based regulation is adopted” (p. 83).

### **Transferability of ERM to Higher Education**

Whitfield (2003) assessed the “feasibility and transferability of a general framework to guide the holistic consideration of risk as a critical component of college and university strategic planning initiatives” (p. 78) and concluded that “the for-profit corporate sector’s enterprise-wide risk management framework is transferable to higher education institutions” (p. 79). At the time of his research study, institution-wide risk management did “not attract a large higher education audience” (Whitfield, p. v).

Since that time, the implementation of ERM models in the for-profit, corporate sector has increased steadily and “during the first decade of the 21<sup>st</sup> century, ERM has become identified as a best management practice for organizations of all types, including for-profit financial and non-financial organizations, non-profits, universities and government organizations” (Lermack, 2008 p. 2). In recent years, AGB, NACUBO and URMIA have developed white papers and presentations advocating ERM for higher education and several major insurance companies and law firms have dedicated practitioners focused on the ERM function within higher education. URMIA concluded that “the ERM process is directly applicable to institutions of higher education, just as it is to any other ‘enterprise’” (2007, p. 17), claiming there is so unique to the

college or university setting as to make ERM irrelevant or impossible to implement (URMIA; Raanan, 2009).

While the internal and external risks facing IHEs may not be all that unique, some aspects of higher education organization and culture are vastly different from the for-profit sector. “Colleges and universities differ in many ways from other organizations” (Birnbaum, 1988, p. 1). “Learning how colleges and universities work requires seeing them as organizations, as systems, and as inventions” (Birnbaum, 1988, p. 1). Three unique aspects of higher education culture may effect ERM implementation in the higher education sector: goal ambiguity, shared governance, and decentralized decision-making.

Goal ambiguity is one of the chief characteristics of academic organizations (Mintzberg, 1979). Most organizations are goal-oriented and, therefore, they can build decision-making structures to meet their objectives. “By contrast, colleges and universities have vague, ambiguous goals and they must build decision processes to grapple with a higher degree of uncertainty and conflict” (Baldrige, Curtis, Ecker, & Riley, 1977). The lack of clarity and agreement within the academic organization on institutional goals is based, in part, on the three-fold mission of most academic organizations of teaching, research, and service (Birnbaum, 1988). Because of these organizational differences, the “processes, structures, and systems for accountability commonly used in business firms are not always sensible for [colleges and universities]” (Birnbaum, p. 27).

A second major difference between IHEs and their for-profit counterparts is the dualistic decision-making structure, comprised of faculty governance and administrative hierarchy, often referred to as *shared governance* (Birnbaum, 1988). The Association of American Universities and Colleges (AAU&P)’s Committee on College and University Governance composed its first

statement on shared governance in 1920, emphasizing the importance of faculty involvement in personnel decisions, selection of administrators, preparation of the budget, and determination of educational policies. Even with the AAU&P's perspective, shared governance does not have one standard definition (Speck, 2011). Some have suggested that higher education's difficulties with change can be traced to shared governance (Benjamin, Carroll, Jacobi, Krop, & Shires, 1993; Eckel, 2000).

Colleges and universities are often *decentralized* in terms of their organizational structure because they are comprised of what Mintzberg (1979) calls a *professional bureaucracy*. In this model, the professional's power derives from the fact that work is "too complex to be supervised by managers or standardized by analysis, but also that his services are typically in great demand" (p. 55). These professionals (in higher education – the faculty) are collections of individuals who draw on the common resources of the organization, but who, for the most part want to be left alone. For them, the organization itself is almost incidental, "a convenient place to practice their skills" (Mintzberg, p. 66). Innovation in such a system can be difficult; while existing programs can be perfected by individual specialists, "new ones necessarily cut across existing specialties – in essence, they require a rearrangement of the pigeonholes – and so call for interdisciplinary efforts" (Mintzberg, 1979, p. 66). Professional employees demand autonomy in their work, have divided loyalties (i.e may lean more to their discipline or their peers in the field than to the IHE where they are employed), have tension between professional values in their field and bureaucratic expectations in the organization, and demand peer evaluation of their work (Baldrige, et al., 1977). "All of these characteristics undercut the traditional norms of a bureaucracy, rejecting its hierarchy, control structure, and management procedures" (Baldrige, et al, 1977, p. 130).

While noting that colleges and universities are unique organizations, Birnbaum (1988) also observes that colleges and universities have begun to adopt more general business practices, concluding that “institutions have become more administratively centralized because of requirements to rationalize budget formats, implement procedures that will pass judicial tests of equitable treatment, and speak with a single voice to powerful external agencies” (p. 17). Bleiklie and Kogan (2007) analyze how the “dominant ideals about the actual organizational patterns of university governance have changed over the past few decades away from the classical notion of the university as a republic of scholars toward the idea of the university as a stakeholder organization” (p. 477). “Although the [higher education] system is concerned primarily with knowledge, it has been called upon to assume many new functions only indirectly related to its traditional responsibility for producing, extending and transmitting knowledge. It is now supposed to actively promote equal socialization, to provide more vocational training, to assist in regional development, to cater increasingly for the adult students, and so on” (Gornitzka, Kyvik, & Stensaker, 2005, p. 47). These changes mean that “institutional leadership is being strengthened, new managerial structures are being established and collegial structures are being weakened and replaced by stakeholder boards and a stronger bureaucratic line organization with a firmer top-down grip on internal organizational processes” (Bleiklie and Kogan, 2007, p. 480). One term used to describe this shift is *new managerialism* (Deem, 1998).

The impact of ‘new managerialism’ on education has been much more extensive than just a change in the language used to describe and discuss educational management. The creation of new layers of management and the introduction of performance management, league tables and targets, for example, are not simply discursive” (Deem & Behoney, 2005, p. 223).

While the ERM concept may be useful for higher education, the framework and implementation steps are often presented to IHEs in a complicated format that is difficult to translate to the higher education environment (Gurevitz (2009). NACUBO, AGB, PricewaterhouseCoopers, and IBM convened a summit to “develop a higher-education-specific, sustainable model for ERM and to discuss the appropriate roles and responsibilities for presidents, business officers, risk officers, and trustees” (2007, p. 13). That summit produced the report, *Meeting the Challenges of Enterprise Risk Management in Higher Education*, which concluded that faculty buy-in and clear role delineation (as well as active involvement from the president and board) were essential to effective adoption and implementation of ERM. The report also noted that it would be useful to have a standard ERM template for use by IHEs and that a case study showing how an institution could apply ERM principles would be beneficial. In Lermack’s (2008) review of the ERM implementation strategies used by The Pennsylvania State University, he noted that because the culture found throughout academia is often “collegial and departmental...dictating a widespread awareness of risk identification and management tools across the academic departments... is a challenge” (p. 52). He noted that “while some universities may be skilled at crossing organizational lines to conduct interdisciplinary research, they may not be as adept at examining interdisciplinary risks and opportunities because of their decentralized departmental structure” (p. 54). Raanan (2009) points out:

As the academic world is going through a period of unprecedented change, it must also adopt advanced, state of the art management methods, approaches and techniques....There is no reason why these institutions cannot adopt a management tool which is relatively easy to deploy, inexpensive, and has the potential of improving management’s performance quickly – the

tool of risk management. Initially, institutions of higher education will have to rely on the expertise developed for other sectors of the economy, until specialized tools are developed for them. In time, it is to be expected that custom-made risk management tools for academia will be developed. (p. 55)

### **Summary**

Interest in, and adoption of, ERM in the corporate sector has grown significantly in the past twenty years and more U.S. companies have not only adopted ERM, but the role of the board and CEO in reviewing risks and using them for corporate governance has increased significantly, in part due to federal regulatory requirements (Aon, 2015; Advisen, 2013; Arena, et al., 2010; Deloitte, 2011; Mikes & Kaplan, 2014; Rogers, et al., 2010). ERM is now firmly established as a best practice with a variety of tools, models, and frameworks to guide implementation, although it is in various stages of implementation across and within sectors. Even with the development and acceptance of standards and frameworks such as COSO and ISO 31000, the term ERM has many different definitions and has been applied to widely differing approaches. ERM remains an “evolving discipline and still imperfectly understood subject (Fraser, et al., 2015).

While higher education does not have explicit federal regulations requiring ERM, public scrutiny of higher education continues to increase. Accreditors, ratings agencies, regulators, legislators, students, and parents demand that IHEs engage in effective decision-making and governance that takes into consideration financial, compliance, and operational risks to meeting their strategic objectives and achieving their missions. Higher education agencies such as AGB, NACUBO, NACUA, and URMIA cite ERM as a best practice for IHEs, however higher education lags behind other sectors in terms of ERM adoption, implementation, and integration.



While the concept and practice of ERM may be transferable, and even advisable, for higher education, the unique organizational components of higher education culture, such as goal ambiguity, shared governance, and decentralized decision-making, make ERM a difficult concept for IHEs to embrace and complicate the implementation and integration process even when administrators see the value of adopting ERM.

## CHAPTER III

### METHODOLOGY

In this chapter, I provide an overview of, and rationale for, the constructivist grounded theory approach to the mixed methods study in order to answer the research question:

How do administrators with risk management responsibility at institutions of higher education (IHEs) in the U.S. describe ERM adoption, implementation, and integration, and what do these cases (quantitative and qualitative) offer by way of an explanatory model for how ERM is initiated, implemented, and integrated in the higher education sector?

This chapter delineates the research methods, including the constant comparative approach to literature review, data collection, analysis, and theory development. This chapter outlines the four phases of the mixed methods design. Finally, I discuss how credibility and trustworthiness were established in the study.

#### **Grounded Theory Approach**

Many research studies are designed to test an existing theory that has been developed to explain an educational phenomena (Gall, Gall, & Borg, 2007). Other researchers have asserted that studies can also be designed such that the data are collected first and then a theory is derived from that data (Glaser, 1992; Wasserman, Clair, & Wilson, 2009). The resulting theory is generated from the real-world data, rather than testing predetermined and necessarily specific hypotheses (Gall, et al., 2007; Gibson & Hartman, 2011). “Grounded theory as a whole represents not just a specific analytic schematic, but more generally an epistemic frame of mind” (Wasserman, et al., 2009, p. 357). “Grounded theory is a good design to use when a theory is not available to explain a process. The literature may have models available, but they were

developed and tested on samples and populations other than those of interest to the researcher” (Creswell, 2007, p. 66).

Grounded theory (GT) was developed by sociologists Glaser and Strauss (1967) and the concepts and principles were put forth in their book *The Discovery of Grounded Theory: Strategies for Qualitative Research*, emerging as a response to the dominance of quantitative methodology and to answer the critique of qualitative research methods, which were perceived to lack systematic guidelines (Birks & Mills, 2011; Denzin & Lincoln, 2005; Dunne, 2011; Gibson & Hartmann, 2014; Glaser & Holten, 2004). While the initial acceptance of the grounded theory approach was slow, in the last two decades it has become more prevalent (Birks & Mills; Gibson & Hartmann; Payne, 2007). The Grounded Theory Institute web site defines GT as follows:

All research is "grounded" in data, but few studies produce a "grounded theory."

Grounded Theory is an inductive methodology. Although many call Grounded Theory a qualitative method, it is not. It is a general method. It is the systematic generation of theory from systematic research. It is a set of rigorous research procedures leading to the emergence of conceptual categories. These concepts/categories are related to each other as a theoretical explanation of the action(s) that continually resolves the main concern of the participants in a substantive area. Grounded Theory can be used with either qualitative or quantitative data. (para 1)

While debate remains regarding procedures and specific techniques, most researchers agree on three primary tenants of grounded theory: *openness* - the research question itself is open-ended; *generation versus justification* – new information results in adjustments to the theory; and *constant comparative method* in the research process - interactive, with data collection and analysis intertwined (Birks & Mills, 2011; Gibson & Hartman, 2014).

I adopted a constructivist approach to GT. Constructivist grounded theorists assert that “realities are social constructions of the mind, and that there exist as many such constructions as there are individuals” (Guba & Lincoln, 1989, p. 43). Constructivism highlights the relationship between the researcher and the participant, and that the researcher is part of the research endeavor, not separate from it (Charmaz, 2006; Gibson & Hartman, 2014; Guba & Lincoln, 1989). Constructivist GT lies within the interpretive approach to qualitative research “with flexible guidelines, a focus on theory developed that depends on the researcher’s view, learning about the experience within embedded, hidden networks, situations, and relationships” (Creswell, 2007, p. 66).

I selected a constructivist GT approach order to understand ERM adoption, implementation, and integration from the point of view of administrators in higher education for the following three reasons: it is *nominalist* - with a focus on how people use categories to construct what problems means to them; it is *co-created* – with a focus on what things mean to people; and it is *relativist* – in approach to the research question, but still grounded in certain procedures and techniques (Gibson & Hartman, 2014).

### **Mixed Methods Rationale**

Mixed methods is the use of more than one method while studying the same research questions, integrating both qualitative and quantitative data to examine a research problem (Hesse-Biber, 2010; Ridenour & Newman, 2008). Many researchers have outlined reasons and rationale that support a mixed methods approach (Bergman, 2008; Bryman, 2006; Creswell, 2009; Greene, Caracelli & Graham, 1989; Hesse-Biber, 2010; Teddlie & Tashakkori, 2009). Researchers have been using mixed methods designs for several decades and such designs have been referred to as multi-method, integrated, hybrid, combined, and mixed methodology research

(Plano Clark & Creswell, 2011). Mixed methods is a “holistic” methodology, where the “methods are driven by the research questions linked to the purpose(s)” (Ridenour & Newman, p. 27).

I selected a mixed methods design to answer the research questions for three reasons. First, inherent in a mixed methods design is *triangulation*, allowing for the convergence of data to enhance the credibility of the findings (Bryman, 2006; Hesse-Biber, 2010; Greene, et al., 1989). The second reason is *completeness* (Bryman) and *complementarity* (Greene et al.), allowing for a fuller understanding of the research problem by employing more than one method. The third reason is *explanation* (Bryman), where the “results from one method...help develop or inform the other method” (Greene, et al., p. 259). This allows for the “researcher’s total understanding of the research problem” (Hesse-Biber, p. 4).

I adopted a qualitative approach to the mixed methods design. In mixed methods research, quantitative approaches tend to have primacy over qualitative ones (Hesse-Biber, 2010). Taking a qualitative approach to mixed methods research can be “illuminating, useful, and advantageous...provid[ing] the means to test out theories generated from in-depth research samples” (Hesse-Biber, p. 9). “Since the exploratory design begins qualitatively, the research problem and purpose often call for the qualitative strand to have greater priority within the design” (Creswell & Plano Clark, 2011, p. 87). A qualitative approach seeks to “unpick how people construct the world around them, what they are doing or what is happening to them in terms that are meaningful and that offer rich insight” (Flick, 2007, p. ix).

### **Research Methods**

Grounded theory contains several unique methodological elements that differentiate it from other research methodologies: whether or not to consult the literature prior to data

collection; the use of memos; the constant comparative method; theoretical sampling; specific coding strategies; and theoretical integration (Birks & Mills, 2011; Dunne, 2011; Gibson & Hartman, 2014). This constructivist grounded theory mixed methods study was conducted using an exploratory design comprised of four interactive phases. The items associated with each phase are articulated in Table 2. Before describing the items for each of the four phases, the grounded theory elements require discussion on the front end, as they occurred throughout the study and not just within one distinct phase.

### **Use of the Literature**

The issue of how and when to engage with existing literature in GT is controversial, especially for PhD students (Birks & Mills, 2014; Dunne, 2011). Traditional GT approaches (Glaser & Strauss, 1967) state that the pre-study literature review should be avoided because it distracts the researcher from what is actually going on with the data. More recently, GT approaches have acknowledged the preliminary review of literature in the field, but the review is ongoing, and used primarily to help direct theoretical sampling and inform concept development (Charmaz, 2006; Strauss & Corbin, 1998). The literature should not stifle the researcher's creativity or impinge on theory development, allowing the data to be central in the study (Birks & Mills; Charmaz, 2006; Dunne). For this study, I conducted a preliminary literature review prior to data collection in order to gain an understanding of ERM in general and the role of ERM in the higher education environment, as well as identify IHEs with ERM programs.

### **Memoing**

“Memos in grounded theory research are records of thoughts, feeling, insights and ideas in relation to the research project” (Birks & Mills, 2011, p. 40). Memos are a cornerstone of GT (Birks & Mills, 2011; Corbin & Strauss, 2008; Dunne, 2011; Gibson & Hartman, 2014; Glaser &

Strauss, 1967). Memoing takes place throughout the GT process, as a way to make sense of the data, as well as to record the emerging theoretical elements.

In this study, I started writing memos at the time the study was initially conceptualized and continued to memo throughout the literature review, data collection, coding and analysis, and theory construction. Memos in this study took a variety of forms. Some were written as reflective documents and formed an audit trail of the planned activities, changes in direction, insights, and rationale for decisions. Other memos were documents written on the ERM subject matter (e.g. the development of conference materials for an ERM presentation; writing a book chapter, journal articles, and papers on ERM in higher education for my PhD coursework), a review of which allowed me to see the evolution of my thinking throughout the study.

### **Constant Comparative Method**

Fundamental to GT design is the process of multiple stages of data collection, concurrent data collection and analysis, and the refinement of themes through *constant comparison* (Birks & Mills, 2011; Charmaz, 2006; Gibson & Hartmann, 2014; Glaser & Straus, 1967). “Grounded theorists start with data. We construct these data through our observations, interactions, and materials we gather about the topic or setting” (Charmaz, 2006, p. 3). Marshall and Rossman (2011) note that in using this approach,

The researcher develops categories and themes...and is constantly evaluating the plausibility of her developing findings. She is constantly searching through the data. She is constantly challenging the very explanations and interpretations that she is putting forward. We have used such terms as analytic induction, constant comparative analysis, and building grounded theory. (location 2794)

The constant comparative method involves moving from facts to theory, with an emphasis on being open and flexible (Gibson & Hartman, 2014).

This study used the constant comparative method throughout. I began with an initial literature review that informed the development of the semi-structured interview protocol for the field test. Results from the field test informed the development of the survey instrument. Interviews were conducted throughout the study and as new questions and suppositions emerged, I returned to the respondents to ask further questions. I coded and analyzed data (literature, interviews, survey responses, and documents) throughout, allowing categories to emerge and then rethinking those categories in light of existing and emerging data. When saturation occurred, I articulated the Conceptual Model of ERM Adoption, Implementation, and Integration at U.S. Colleges and Universities (see Figure 7).

### **Theoretical Sampling**

“Theoretical sampling is unique to grounded theory research and is the essential method responsible for making the process emergent” (Birks & Mills, 2011). In theoretical sampling, the researcher collects, codes, and analyzes data in an ongoing and interactive way, deciding what additional data to collect as meaning evolves (Charmaz, 2006; Glaser & Strauss, 1967; Ridenour & Newman, 2008). “It is more the idea of what is still missing in the data (and the insights they make possible) which drives sampling decisions” (Flick, 2007, p. 26). Theoretical sampling can be employed from the first data collection event with initial purposeful sampling; using the constant comparative method, the researcher then seeks “broader and more diverse sources and types of data” (Birks & Mills, 2007, p. 70). As the research progresses, theoretical sampling is used to address gaps identified within and between categories (Birks & Mills, 2011; Charmaz, 2006; Corbin & Strauss, 2008).



In this study, I started with purposeful sampling in the field test ( $n = 3$ ). Conversations with colleagues in the ERM field and continuing literature review led to my awareness of other institutions using the ERM framework of which I was previously unaware. Using the constant comparative method, I continued to interview administrators and read about ERM at IHEs. This led to theoretical sampling in Phase 2 (see Table 3).

### **Coding Strategy**

The approach to coding in grounded theory is controversial (Charmaz, 2006; Dey, 1999; Gibson & Hartman, 2011) and has become increasingly elaborate in contemporary literature (Gibson & Hartman). For some researchers, the process is divided into clear stages, whereas for others, these stages are less clear (Charmaz, 2006; Gibson & Hartman, 2014; Grounded Theory Institute, n.d.). “A code in qualitative inquiry is most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data” (Saldana, 2009). The grounded theory approach to coding is to read (and re-read) a textual database and “discover” or label variables (called categories) and their interrelationships (Charmaz, 2006; Strauss & Corbin, 1998). “Grounded theory coding requires us to stop and ask analytic questions of the data we have gathered. These questions not only further our understanding of studied life but also help us direct subsequent data-gathering toward the analytic issues we are defining” (Charmaz, p. 42). According to Charmaz:

The strength of grounded theory coding derives from this concentrated, active involvement in the process. You act upon your data rather than passively read them. Through your actions, new threads for analysis become apparent. Events, interactions,

and perspectives come into analytic purview that you had not thought of before”  
(Charmaz, p. 59).

The emphasis for coding in this constructivist study was on what things mean to the key informants in the study and an attempt to align the codes most closely to their interpretation (Charmaz, 2006). The focus was also on emergence – “the process by which codes and categories of the theory fit the data, not the process of fitting the data to predetermined codes and categories” (Kendall, 1999, p. 746). I conducted the coding at three levels – *initial*, *focused*, and *theoretical*. My approach to coding was not linear; rather the levels were recursive and overlapping (Birks & Mills, 2011). Data collected in the study were coded at various points as the data was collected and original codes were revisited as new information became available. New codes were generated until the last stages of the study (Creswell, 2009).

**Initial coding.** “When grounded theorists conduct initial coding, we remain open to exploring whatever theoretical possibilities we can discern in the data” (Charmaz, 2006, p. 62). This initial coding identifies, names, categorizes and describes phenomena found in the text. Initial coding (referred to by Miles and Huberman (1994) as descriptive coding), sticks closely to the data, rather than trying to impose pre-existing categories onto the data. “Initial codes are provisional, comparative, and grounded in the data” (Charmaz, 2006, p. 63). Because coding and analysis do not take place in separate phases, I coded transcripts and documents throughout the process to summarize in a word or short phrase the basic topic of a passage of qualitative data. This also allowed me to identify gaps in the data and informed my ongoing data collection. For example, after initial coding of the interviews and documents from the case study sample, I recognized that I had not probed deeply enough regarding how the participants viewed the value

of ERM on their campus and what challenges they faced during implementation. I emailed each key informant and they wrote back with detailed descriptions of both, which I then coded.

**Focused coding.** Once the initial coding was complete, I engaged in focused or selective (Gibson & Harman, 2014) coding. Focused coding is more directed, selective and conceptual (Charmaz, 2006). Focused coding categorizes data based on thematic or conceptual similarity (Saldana, 2009). “Some categories may contain clusters of coded data that merit further refinement into subcategories. And when the major categories are compared with each other and consolidated in various ways, you begin to transcend the “reality” of your data and progress toward the thematic, conceptual, and theoretical” (Saldana, 2009, p. 11).

**Theoretical coding.** Advanced, or *theoretical* (Glaser, 1978, 1992), coding is “at the heart of theoretical integration” (Birks & Mills, 2011, p. 116). Strauss and Corbin (1990) refer to this stage of coding as *axial* coding, where the researcher connects subcategories generated during earlier phases to a central category and poses questions about how categories of data related to one another. At this level of coding, it is important to remain open to ambiguity (Charmaz, 2006). The purpose of theoretical coding is to “systematically relate the core category to other categories and integrate and refine the categories into theoretical considerations” (Kendall, 1999, p. 747). “Theoretical coding is primarily focused on integrating the theory and delimiting it” (Gibson & Hartman, 2014, p. 94). While all levels of coding took place throughout the study, I placed more emphasis on theoretical coding in the more advanced phases of the study, when more data and memos were available (Birks & Mills).

### **Theoretical Integration**

The end result of GT research is a theory. “Grounded theory methods are referred to as inductive in that they are a process of building theory up from the data itself” (Birks & Mills,

2011, p. 11). Theory is “an explanatory scheme comprising of a set of concepts related to each other through logical patterns of connectivity” (Birks & Mills, p. 113). “Constructivist grounded theories are more than simply a re-description of qualitative data. They should be, or ought to be, theories about constructs, their relationships, and how they relate to everyday meaning” (Gibson & Hartman, 2011, p. 63). Gibson and Hartman emphasize that the “theory generated with the grounded theory method must work” (p. 36).

The conceptual framework in Chapter I reflects my supposition about how ERM was adopted, implemented, and integrated at IHEs before I began data collection, having reviewed the literature on ERM in general and in higher education, as well as literature on higher education organization and management. The Conceptual Model of ERM Adoption, Implementation & Integration in U.S. Colleges and Universities in Chapter V is the result of using the constant comparative method throughout literature review, data collection, coding and analysis to reach saturation and theoretical integration (see Figure 7).

### **Research Phases**

This study used an exploratory design comprised of four phases (see Table 2).

Table 2

#### *Research Phases and Action Steps*

<b>Phase</b>	<b>Action Steps</b>
Phase 1	Conducted preliminary literature review Developed practical problem and research problem Developed research problem Designed research questions Preliminarily identified ERM population

Table 2—Continued

Phase	Action Steps
Phase 2	Developed case study design for qualitative strand Conducted initial purposeful sampling Developed qualitative semi-structured interview protocol Field tested qualitative semi-structured interview protocol ( $n = 3$ ) Coded and analyzed field test data (interviews and documents) Developed parameters for case study inclusion Continued theoretical sampling Continued literature review Identified the information needed to inform the third phase
Phase 3	Confirmed the case study sample ( $n = 5$ ) Conducted semi-structured interviews with case study sample Used qualitative findings to inform design of the quantitative data collection instrument Pilot tested survey instrument ( $n = 3$ ) Revised and refined survey instrument based on pilot test Administered online survey instrument ( $n = 35$ ) Continued data collection and analysis Continued literature review
Phase 4	Summarized and interpreted the qualitative results using within case and cross-case case study analysis Summarized and interpreted the quantitative results using descriptive and inferential statistics Discussed to what extent and in what ways the quantitative results and qualitative results inform one another Reported findings Described theory and conceptual model of ERM Adoption, Implementation and Integration in U.S. Colleges and Universities

### Phase 1

Prior to commencing this study, I had very little knowledge of ERM. After reading one dissertation on ERM in higher education (Whitfield, 2003), I became engaged with the subject matter and wanted to find out more about how the traditionally business oriented construct of ERM was being adopted and integrated into the higher education culture and environment. The first stage of literature review focused on ERM in general and within higher education. I

reviewed the literature to identify gaps in the research, articulated the practical problem and research problem, and formed my original research questions. I also preliminarily identified the ERM population through literature review, online searches, and networking with colleagues. The research problem and gaps in the ERM literature, particularly in higher education were discussed in Chapters I and II.

**ERM population.** Institutions with ERM programs formed the population for both the qualitative and quantitative strands of this study. In order to be included in the population, the institution was identified as one with an ERM program. In some instances, the institution did not use the specific term “enterprise risk management,” but if they identified their framework as institution-wide, integrated, and comprehensive (as opposed to focused exclusively on safety, financial or insurable risks) the institution was included in the population. Institutions without identifiable ERM programs were excluded from the study.

Because ERM in general, and particularly in higher education, is in its infancy, there is no comprehensive, industry-accepted list of institutions with ERM programs. Therefore, I created a list that served as the initial “universe” or “population” (see Appendix A). The list continued to evolve over the course of the study through a review of institutional web sites, citation of ERM in conference proceedings or journal publications, listservs of URMIA, the Association of College and University Auditors (ACUA), and other education organizations where enterprise risk management is a topic of interest or focus, and consultation with colleagues at conferences, via email and through networking (see Appendix B).

## **Phase 2**

The second phase of the study was comprised of qualitative data collection and analysis and continued literature review.

**Case study design for qualitative strand.** The qualitative strand of the study adopted a case study approach. The term case study can be ambiguous, referring to a variety of research designs (Seawright & Gerring, 2008). Some authors present case study as a methodology or a comprehensive research strategy (Denzin & Lincoln, 2005; Merriam, 1998; Yin, 2009). Stake (2005) argues that case study research is not a methodology, but a choice of what is to be studied, an empirical inquiry investigating a contemporary phenomenon in depth. Case study is particularly appropriate when the researcher wants to study a few examples of a unique situation in great depth, when the researcher wants to focus on *how* and *why*, and when the design doesn't require the control of behavioral events (Patton, 1990; Yin, 2009). When little is known about the phenomenon, one purpose may be *casing* itself (Raggin, 1992). For the purpose of this study, I adopted Creswell's (2007) definition:

Case study research is a qualitative approach in which the investigator explores a bounded system (a case) or multiple bounded systems (cases)..., through detailed, in-depth data collection involving multiple sources of information (e.g. observations, interviews, audiovisual material, and documents and reports), and reports a case description and case-based themes" (p. 73).

**Qualitative instruments.** The qualitative instruments for this study were in-depth, semi structured interviews with key informants and document analysis.

***Semi-structured interview instrument.*** "An important staple of implementation research are first-hand accounts of what is happening in a program by people directly involved in program design, management, or operations" (Werner, 2004, p. 33). I developed an interview protocol based on the research questions to ask questions about ERM adoption, implementation and integration from the point of view of the key informants in the sample (see Appendix C).

**Documents.** The review of documents allowed me to utilize existing information to answer the research questions as well as triangulate interview data. Documents, or "texts," are one of the central sources of qualitative data. "Often the first and easiest information to collect for an implementation study is contained in existing documents" (Werner, 2004, p. 28). For the purposes of this study, the majority of the documents were official - publically available documents such as year-end reports, memos, meeting minutes, organizational charts, and reports. Many institutions with ERM programs have publically available web sites with information on the ERM program, including timelines, areas of responsibilities, whitepapers articulating the philosophy and framework of the model, annual reports, and visual aids regarding the risk management process and cycle, and outcomes of the risk management process. I collected all available documents from the case study sample web sites, as well as requested additional documents during and after the interviews.

**Initial purposeful sampling.** Qualitative research primarily utilizes purposeful sampling to enhance information through information-rich cases, while quantitative research most often utilizes probability sampling to allow for statistical inferences and generalization (Sandelowski, 2000). In mixed methods research, sampling strategies are "combinations of (or intermediate points between) the probability and purposive sampling positions" (Plano Clark & Creswell, 2008, p. 208). Along the continuum of totally qualitative research with purposive sampling and totally quantitative research with probability sampling, a mixed methods study can adopt a "greater integration of research methods and sampling" (Plano Clark and Creswell, p. 209). The overall purpose of sampling is designed to generate a sample that will address research questions and that sampling considerations can employ a number of techniques.



**Field test data collection and analysis.** For the field test, I used purposeful sampling and sought information rich *critical cases*, aiming at those cases “in which the experiences or processes to be studied become especially clear – for example the opinion of experts in the field” (Patton, 2002, p. 28). Critical case institutions were identified and the key informants at those institutions that served as experts in the field were identified at each institution for their “expert knowledge in institutional decision-making” (Flick, 2007, p. 30) regarding ERM. Administrators with direct risk management responsibility or oversight at institutions with stated ERM programs served as the key informants.

The application to HSRIB was submitted to conduct the field test and the HSIRB determined that approval was not required because I was analyzing a process and not collecting personal identifiable (private) information about individuals (See Appendix D). Through my literature review, I identified institutions for possible inclusion in the field test. The semi-structured interview protocol was field- tested with one key informant at each of three institutions: Texas A&M University, the University of Washington, and Auburn University. Interviews were approximately one hour each and were recorded, transcribed, and reviewed for initial coding. Thirty-two documents regarding ERM from the three institutions were reviewed. Results of the field test revealed preliminary findings which were used to inform the revision of the semi-structured interview process for the remainder of the study and the development of the survey items in Phase 3.

Using the constant comparative method and theoretical sampling, I continued to talk with colleagues about ERM in higher education through conference attendance and networking. I spoke with colleagues and/or reviewed documents from 30 institutions with ERM programs, including Harvard University, Stanford University, SUNY-Cortland, University of Maryland-

Baltimore, University of Arizona, Clemson University, University of Georgia System, Indiana University, Duke University, Virginia Commonwealth University, and others (see Appendix E). I spoke with ERM experts from a variety of organizations that work with higher education institutions, including Moody's Investors Services and the Association of Governing Boards. I prepared for and conducted two professional conference presentations on ERM in higher education with colleagues; visited risk managers on three campuses (University of Baltimore-Maryland, University of Oregon and University of Vermont); published three articles on ERM in higher education in journals; and wrote a case study book chapter on ERM in higher education for a textbook on ERM (Fraser, et al., 2015). While not conducting formal interviews, the conversations, conference preparation, and writing continued to contribute to the data collection process. I documented my reflections and information in memos.

Recognizing that not all institutions with ERM that I had talked with could be included in the final case study sample, I utilized *stratified purposeful sampling* to ensure that I selected institutions that represented defined points of variation (Gall, et al., 2007). I developed the parameters for the sample to be included in the case studies, evaluating them on several factors: public or private; their Carnegie classification; the number of years since their ERM adoption; the level at which the ERM adoption was generated; the ERM oversight and structure; and the ERM framework (see Table 3). I contacted the risk manager or other administrator with program oversight of the identified ERM program (all of whom I had spoken to previously) to seek their participation in the study. After reaching out to a variety of institutions, the following institutions were selected for inclusion in the qualitative case study sample: Emory College-Emory Healthcare, Grinnell College, East Carolina University (ECU), University of Vermont (UVM), and the University of Washington (UW).

Table 3

*Case Study Sample Aligned with Inclusion Categories*

	Emory Healthcare	ECU	Grinnell	UVM	U W
Public/Private	Priv	Pub	Priv	Pub	Pub
Size/Type (Carnegie)	L4/HR RU/VH	L4/NR DRU	S4/HR Bac/A&S	L4/HR RU/H	L4/HR RU/H
ERM Adoption Year	2006	2009	2013	2008	2006
Impetus to adopt ERM	President	Internal Audit	President	Board	Board
ERM Committee	Yes	Yes	No	Yes	Yes
Chief Risk Officer	Yes	Yes	No	Yes	No
ERM Framework	Homegrown	ISO	Homegrown	ISO	COSO

**Phase 3**

The literature review and ongoing consultation with ERM colleagues revealed that there are limited descriptive or implementation studies focused on ERM adoption, the implementation steps, or the determinants of the ERM framework in general, and no empirical studies regarding the comprehensive ERM adoption, implementation and integration process in higher education. “Unless researchers first generate an accurate description of an educational phenomenon as it exists, they lack a firm basis for explaining or changing it” (Gall, et al., 2007, p. 301). Therefore, the quantitative strand of the study was descriptive, with the intent of examining the phenomenon of ERM adoption, implementation, and integration in higher education at a specific point in time. Descriptive research “involves describing the characteristics of a particular sample of individuals or other phenomena” (Gall, et al., p. 298) and is “concerned primarily with

determining ‘what is’” (p. 301). In Phase 3, I used the results of the qualitative interviews and document analysis from Phase 2 to inform the development of the quantitative survey items.

**Quantitative instrument.** The quantitative component of the study utilized a survey design. “A survey design provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population” (Creswell, 2009, p. 153). Kimbrough’s (2006) review of the literature regarding instruments that measure ERM reveals that “measurement of the effectiveness and implementation progress of ERM programs is a discipline still in its infancy” (p. 46). He notes that the “measurement tools seen in the literature vary widely in terms of their components, are largely subjective in nature, and generally produce qualitative rather than quantitative results” (p. 46). Further review of the literature found no instruments to answer the research questions. An examination of Kimbrough’s instrument found that he focused exclusively on one aspect of ERM, the COSO model, and, therefore, the instrument was not useful in answering my research questions.

I designed a cross-sectional online survey (see Appendix F). I submitted a post-approval change request to the HSRIB, which determined that the study still met the “approval not needed” category for human subject research, and collected the quantitative data.

The purpose of the survey was two-fold. First, it gathered important descriptive information (items 1 – 27) about institutions of higher education with ERM programs and the people responsible for it (e.g. institutional size and type, responsibility for risk management oversight, tools and instruments used in the risk management process, degree of implementation). Second, the survey used elements of several risk maturity models, risk management frameworks and principles, and organizational structure and management frameworks to gather information about how the key informants viewed their institutions’ risk

maturity, risk process, and organizational structure. Items 29 – 48 of the survey were statements of risk maturity - from initial to mature – developed based on a review of risk maturity models and using elements of ISO 31000 regarding culture and maturity to form the statements. I designed this portion of the survey instrument with four levels of risk maturity, asking respondents to place themselves from level 1 to level 4 on a variety of attributes (e.g. senior leadership, organization of risk management activities, link to strategic planning, and integration of risk management with planning decision-making). Item 28 posed an open-ended question about how respondents viewed the value of ERM for their IHE. A draft of the survey was pilot tested with three participants. Feedback from the pilot test was used to modify and improve the instrument.

**Quantitative sample.** *Criterion* sampling, a type of purposeful sampling, was used for the quantitative portion of the study. Criterion sampling, particularly useful in studying education programs, “involves the selection of cases that satisfy an important criterion...[that] yield rich information about aspects of the program that work well or poorly” (Gall, et al., p. 184). The criteria for inclusion in the quantitative survey portion of the study was the key informant’s agreement that the institution had an ERM program as characterized by the stated definition of ERM.

The survey instrument was administered using the QuestionPro online survey software. The sample for the quantitative survey was derived from emails sent to higher education institutions with identifiable ERM programs and requests for participation with a survey link posted on the URMIA listserv. I also used a snowball sampling approach to solicit additional potential participants, asking administrators to share the survey link with other colleagues known to them who met the criteria of having an ERM program. Because the population of colleges and

universities with ERM programs was unknown, I did not know the actual target population and the sampling frame could not be determined definitively prior to the beginning of the study.

#### **Phase 4**

In Phase 4, I analyzed the quantitative data, wrote the case studies for the five qualitative sample institutions, member-checked the case studies with participants in the sample, reviewed the quantitative and qualitative data in relationship to one another and to the literature, and developed the Conceptual Model of ERM Adoption, Implementation, and Integration in U.S. Colleges and Universities (see Figure 7).

I analyzed the survey results using the QuestionPro tool. I exported the results to Excel. I checked each survey response, reviewing it to determine if the respondent met the inclusion criteria (an ERM program based on the provided definition at a U.S. institution of higher education) and if the respondent completed all items on the survey. I deleted responses from the spreadsheet that did not meet the ERM criteria as articulated in survey item 12. In two instances, there were respondents that started the survey at one point in time and then began it again later, thus creating two instances for their institution. I combined the data for these into one survey response for each institution. I then went back to the QuestionPro tool and updated the responses based on my Excel spreadsheet, leaving me with 29 responses to analyze.

Using the QuestionPro analysis functions, I first determined all of the demographic information (e.g. education of the respondents, years worked at the institution, title and reporting area for the respondents). Next, I reviewed the risk maturity items (items 29 - 48 on the survey instrument). I identified the total number of responses and percentage of the sample for each item on the scale as well as the mean maturity level for each maturity item. I also pulled out the

survey responses for the qualitative sample and calculated their responses for each item and compared them to the quantitative sample.

Using the information from the interviews with the key informants in the case study sample, as well as document review and follow up conversations and emails, I wrote case study descriptions for each one. This allowed me to articulate my findings in a story format. Once written, I sent the case studies to the key informants for member checking. Using the constant comparative method, I continued to return to the interview notes, documents, literature, survey responses, and memos to develop initial codes and then used focused coding to allow themes to emerge.

### **Legitimation and Theoretical Integration**

The “truth value,” particularly in mixed methods research, involves connecting the research purposes, questions, and methods to establish validity (Ridenour & Newman, 2008). Design validity is established by demonstrating that the findings are credible, transferrable, dependable and conformable (Lincoln & Guba, 1985). Congruence in research design, or *goodness of fit*, equals quality (Hesse-Biber, 2010). A term used in mixed methods research to describe credibility and the “truth value” is *legitimation* (Onwuegbuzie & Johnson, 2006).

In mixed methods, a “strong inference is possible only if there is a strong and appropriate design that is implemented with quality” (Bergman, 2008, p. 112). Design quality is determined based on design suitability, design fidelity (the procedures), within design consistency between the qualitative and quantitative components, and analytic adequacy (Bergman). According to Bergman, interpretive rigor is determined by the following:

*Interpretive consistency* – do the inferences closely follow the relevant findings?

*Theoretical consistency* – are the inferences consistent with theory in the field?

*Interpretive agreement* – do the researcher’s inferences match participants’ constructions?

*Interpretive agreement* – do other scholars reach the same conclusions? Do participants’ inferences and constructions match the researcher’s?

*Theoretical consistency* – are the inferences consistent with theory and state of knowledge in the field?

*Interpretive distinctiveness* – are the inferences plausible and supported?

*Integrative efficacy* – does the meta-inference incorporate inferences from the qualitative and quantitative strands of the study?

I established design quality in this study through the use of the mixed methods exploratory design conducted in phases to answer the research question (using field test findings to inform survey development and case study interviews); memoing throughout the constant comparative process; creating an audit trail of all documents, interviews, and literature reviewed; using initial, focused, and theoretical coding to reach saturation and theoretical integration.

I established interpretive rigor by for this study through the triangulation of data; member-checking qualitative interviews; the use of thick description in the case studies; pilot testing the quantitative survey; data cleaning the survey responses; reviewing the qualitative and quantitative findings in relationship to one another for interpretive consistency and integrative efficacy.

In grounded theory, the construction of theory commences with the first piece of data (Birks & Mills, 2011), through data collection and analysis using the constant comparative method, and continues until there is theoretical integration or integrative fit (Birks & Mills; Glaser, Charmaz, 2006; Gibson & Hartman, 2014; Glaser, 1978). There are three factors



necessary for the integration of a grounded theory: an identified core category; theoretical saturation of major categories; and an accumulated bank of analytical memos (Birks & Mills). Theoretical integration and integrative fit is established for this study in the findings in Chapter and the explication of the Conceptual Model in Chapter V (see Figure 7).

### **Delimitations**

This study was delimited to institutions of higher education with explicitly stated ERM programs. Participation was limited to administrators with significant risk management responsibility and/or oversight working at higher education institutions in the U.S. Administrators working at institutions of higher education without an explicitly stated ERM program or who work outside of the U.S. were not included.

The decision-making and administration processes related to ERM used by administrators, as well as the organizational structure of the educational environment where the program resides, were examined through a survey instrument. Other elements of organizations were not examined (e.g. culture, leadership styles, etc.). The quantitative results are only generalizable to those institutions of higher education in the U.S. with explicitly stated ERM programs.

### **Summary**

This constructivist grounded theory mixed methods study used an exploratory survey and case study design to understand how administrators at U.S. colleges and universities describe ERM adoption, implementation, and integration in order to gain an understanding of ERM practices and principles in higher education and to build theory of ERM implementation in the higher education sector. The study was conducted in four phases, using the constant comparative method for literature review, data collection, and data analysis. Prior to data collection, I created

a preliminary conceptual framework of ERM adoption, implementation, and integration in higher education, which formed the basis for the development of the semi-structured interview protocol for the qualitative portion of the study. Findings from the literature review and the qualitative interviews formed the basis for the development of the quantitative survey instrument. I established legitimation (design quality and interpretive rigor) for this study through the use of triangulation of data; memoing throughout the constant comparative process; creating an audit trail; member-checking qualitative interviews; use of thick description in the case studies; clear coding strategies; pilot testing the quantitative survey; and theoretical integration as evidenced in the Conceptual Model in Chapter V.

## CHAPTER IV

### RESULTS

This chapter provides an overview of the study, the results of the quantitative survey, the results of the qualitative study in case study format, and a discussion of the findings for the quantitative and qualitative samples.

#### **Overview of the Study**

The purpose of this constructivist grounded theory mixed methods study was to understand decision-making and administration processes regarding the adoption, implementation, and integration of ERM at U.S. colleges and universities. The ultimate aim of the research was to build theory of ERM implementation specific to the higher education sector that can be used by practitioners and other researchers. The research question for this study was:

How do administrators with risk management responsibility at institutions of higher education (IHEs) in the U.S. describe ERM adoption, implementation, and integration, and what do these cases (quantitative and qualitative) offer by way of an explanatory model for how ERM is initiated, implemented, and integrated in the higher education sector?

Sub-questions were:

What factors led to the decision to adopt ERM?

What steps did institutions take to implement ERM?

How is ERM organized?

What activities are involved in the ERM process?

What is the relationship between organizational structure, goal-setting, decision-making and ERM?

How do administrators describe the value of ERM?

### **Results of the Quantitative Survey**

The quantitative portion of the study used a cross sectional online survey to ask administrators demographic and risk maturity questions regarding their ERM program. Thirty-seven administrators responded to the survey. Of those, 30 answered item 12 (using the following definition of ERM, would you say that your institution has an ERM program, regardless of what you may call it?) in the affirmative. Respondents that answered *no* to this item were not included in the analysis of results, nor was the one respondent from outside the U.S. Survey results ( $n = 29$ ) are described below.

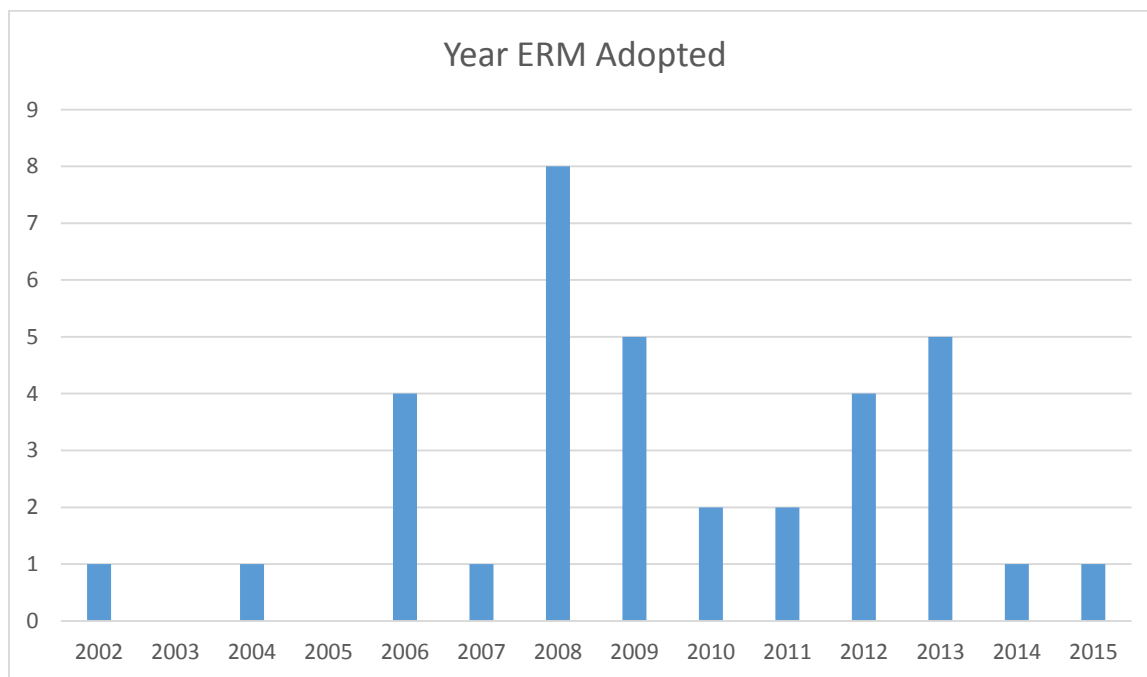
#### **Institution and Respondent Characteristics**

The majority of respondents hold either the BA (37.5%) or the MA (17%). A few hold the PhD (5%) and 3% hold a JD. Twenty-four percent responded “other” when asked about their degree and/or professional affiliations and listed degrees and designations such as MBA (17%), ARM (14%), CPA (14%) and BS (10%). Respondents have worked an average of 11 years at their institution, with 35% ( $n = 10$ ) of respondents having worked at their institution an average of 19 years.

There was no uniformity to the title used to designate the person with ERM responsibility. Respondents hold a variety of titles including Chief Risk Officer, Risk Manager, and ERM Compliance Officer (see Appendix G). ERM programs are located in many areas of institutions, including Legal Counsel (17%), Internal Audit (10%), Office of the President (7%), with Business and Finance being most prevalent (45%). Twenty-one percent responded “other” and reported areas such as Administration and Planning ( $n = 2$ ), Compliance ( $n = 1$ ), and Risk

and Insurance ( $n = 1$ ). Two respondents reported in Academic Affairs, with one of them holding a faculty appointment with administrative responsibilities.

Institutions in the study have had their ERM program in place for an average of 6.2 years ( $n = 28$ ). The program in place the longest started in 2002 and 11 institutions have started their ERM program within the last 3 years. Seventy-one percent of the institutions in the study have had their ERM program in place for 7 years or less and 39% have had their program in place for four years or less.



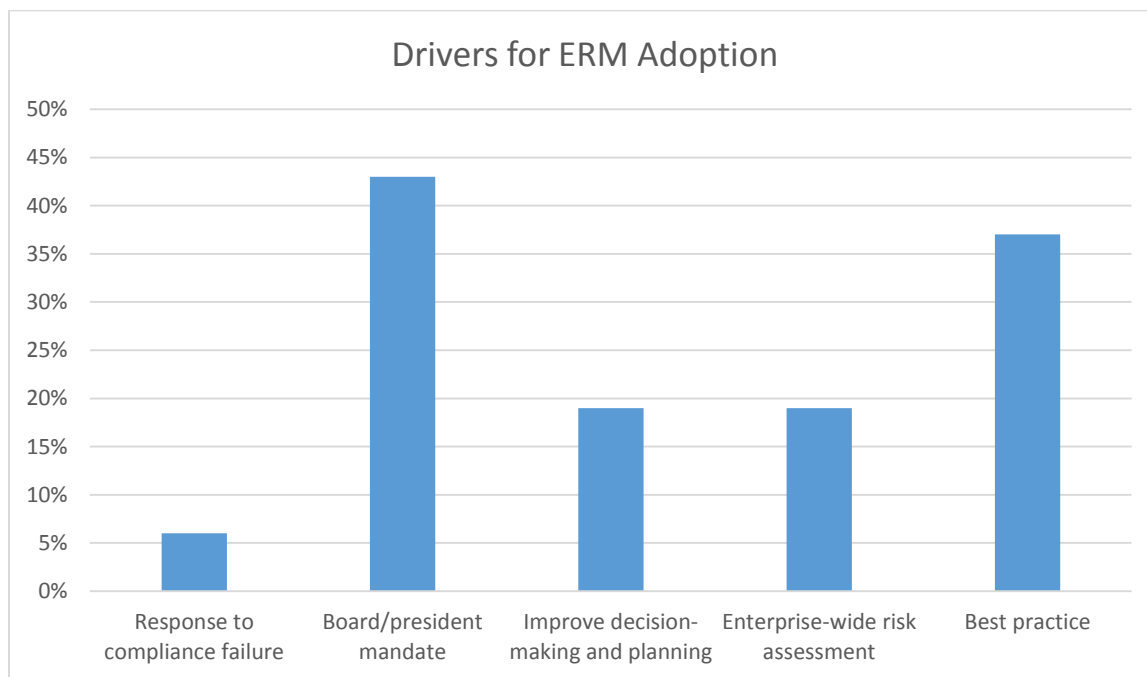
*Figure 5. Year of adoption in the quantitative sample.*

### **ERM Adoption**

The impetus for starting an ERM program came from the top of the organization in over half of the sample (31% at the board level and 24% from the president or chancellor). The remainder of the programs were initiated by a vice president (17%), internal audit (14%) or the

risk manager (10%). One respondent cited an external source, a State Risk Management Fund, as the driver.

Respondents were asked about their reasons for implementing ERM, based on the reasons generally cited in the ERM literature. They could select more than one response. Most respondents stated that their IHE adopted ERM as a proactive measure (75%) identified as a best practice (37%) that would improve decision-making (19%) and allow for enterprise-wide assessment of risk (19%) as opposed to response to a compliance or regulatory failure (6%). In addition to any other reasons cited for starting ERM, 43% that the ERM adoption decision was a board or presidential mandate.



*Figure 6. Drivers for ERM adoption in the quantitative sample.*

Respondents were asked to list all of the preliminary action steps they used to launch their ERM program and most used multiple strategies. Twenty-six percent of institutions used a consultant. In addition, they reviewed the ERM literature (30%), attended conferences where

ERM was a primary topic (23%), and consulted with colleagues at other institutions (see Appendix H).

### **ERM Implementation: Structure and Activities**

The majority of the IHEs in the sample use the term “ERM” (76%) to describe their program. Six IHEs use other terms: Strategic Risk Management, University Risk Management, Institutional Risk Management ( $n = 2$ ), Risk Control, Purposeful Risk Management, and Strategic Risk Management Priorities. Institutions are split on whether or not they have hired a chief risk officer, with 41% having hired one and 59% not. There is a strong preference for having a dedicated risk management group or committee (83%). Names for the ERM committees vary (see Appendix I).

In terms of standardized risk management frameworks, approximately one third indicate that their framework is homegrown (31%), with 38% using the COSO framework and 21% using ISO 31000. Ten percent indicate they do not use a framework. Fifty-two percent of respondents indicate that their IHE has an ERM web site.

Having a formal risk management policy is common practice in the corporate sector. Interestingly, 90% of respondents indicated that their institution does not have a written risk management policy. A follow up question asked if they had specific elements in place traditionally associated with a risk management policy. Asked to select all that apply, a quarter of the respondents (25%) indicated that they had none of the traditional elements of a risk management policy, while three-quarters of the institutions had one or more of the traditional elements including risk appetite (18%), risk tolerance (14%), risk criteria (14%), risk target (11%), and risk limit (7%).

In terms of how IHEs identify and assess risk, they use a variety of techniques, with interviews being the most common (40%). IHEs also use facilitated workshops (26%) and surveys (22%). Only 4% use a web-based or automated tool. For those who responded “other,” they cited discussion with colleagues at other institutions, information from insurers, risk management listservs, and general monitoring of the risk climate both locally and nationally. Most IHEs (83%) have a list of “top risks” but only three uploaded those risks to QuestionPro. Respondents indicated that those risks are, however, routinely reviewed by the board of trustees/regents at the majority (83%) of the IHEs.

Respondents were asked one open-ended question: how do you know if implementation of the ERM framework has reduced, mitigated, or controlled risk, created opportunity, enhanced financial viability and/or resulted in other positive factors?

Responses to this question had some common themes. Respondents cited some quantitative measures such as year-to-year comparison metrics, key risk indicators tied to strategic goals and objectives, the increase in work orders to improve facilities, the reduction in auditable findings, a reduction insurance claims, favorable bond rating, and improvement in risk controls over time. Respondents also cited the development of not only the tools themselves (such as risk registers and risk mitigation plan templates) as one of the values, but the fact that “cross-silo [discussion and review] that cut across organizational charts” took place at specified points in time by a variety of constituent groups, including ERM committees, internal audit, senior leadership, the board, and legal counsel. One respondent noted that “we identified numerous areas where the risk was high and our control was weak, usually due to lack of clear responsibility.” Another respondent noted that the ERM committee and risk owners who participate in it “continually say that their day-to-day and long-range decision-making has



become more mature due to their participation, particularly in their understanding of how their area of responsibility affects others.”

Respondents also cited discussion as a major value, including the fact that “decision-makers talk about risks and mitigation in their discussions” and “increased risk awareness at the senior level.” One respondent noted that ERM had created an “increased focus” at the decision-making level which has led to a realignment of resource allocation. “Risk has become common language on campus and adds value to decisions that might have been regretted if risks were considered only later in the process.” One respondent noted that ERM value was “difficult to quantify.” Several noted the lack of unforeseen adverse events as a measure of ERM value, including the lack of “major negative headlines.” One offered this example:

One risk we identified in 2003 as among our top concerns was our wildfire exposure. We actively pursued development of a plan to mitigate this, which was well-rewarded in 2008 when a major forest fire consumed 8 buildings and a million square feet of landscape, but with no human casualties. Overall, by keeping a finger on the risk pulse, we enjoy confidence that we’re less likely to be surprised by an otherwise unforeseeable disruption.

### **ERM Integration and Risk Maturity**

ERM maturity was measured asking respondents to place themselves on a continuum corresponding to the four levels of risk maturity developed based on the work of various researchers and authors (Accenture, 2009; AON, 2010; Battenberg, Nepplbroek, & Shahim, 2014; Chapman, 2006; Ciorciari & Blattner, 2008; Deloitte, 2006; Hillson, 1997; Hopkinson, 2000; Marks, 2011; RIMS, 2006). Table 4 shows respondents’ rankings on 19 risk maturity attributes. For each item, the percent of respondents that selected level 1, level 2, level 3, or level

4 based on descriptive statements for each item is reported. The mean for each item is also reflected.

Table 4

*Risk Maturity by Level in the Quantitative Sample*

Attribute	Maturity Level				Maturity Item Mean
	Level 1	Level 2	Level 3	Level 4	
Approach to dealing with risk and uncertainty (29)	.00	.44	.41	.14	2.7
Senior leadership (30)	.00	.36	.54	.11	2.7
Understanding of risk management in institution (31)	.04	.36	.46	.14	2.7
ERM responsibility (32)	.04	.33	.22	.41	3.0
ERM framework development (33)	.00	.48	.38	.14	2.6
Risk identification and reporting (34)	.14	.50	.32	.00	2.2
Risk evaluation and prioritization (35)	.00	.21	.57	.21	3.0
Standardized compliance practices (36)	.00	.50	.38	.12	2.6
Integration with strategic planning (37)	.14	.54	.29	.00	2.2
Risk management embedded in organization practices (38)	.18	.59	.22	.00	2.0
Risk management process is part of, not separate from, organizational processes (39)	.04	.52	.44	.00	2.4
Risk management plan integrated with other plans (40)	.22	.52	.22	.04	2.4

Table 4—Continued

Attribute	Maturity Level				Maturity Item Mean
	Level 1	Level 2	Level 3	Level 4	
Risk management process is embedded in institutional culture (41)	.30	.30	.37	.04	2.1
Risk management process tailored to institution business practices (42)	.11	.34	.32	.21	2.6
The organization has a current, correct, and comprehensive understanding of risk (43)	.11	.48	.30	.11	2.4
Institutional decision-making involves explicit consideration of risk (44)	.30	.44	.26	.00	1.9
Risk management is seen as providing the basis for effective governance (45)	.19	.41	.33	.07	2.2
Comprehensive and frequent internal and external reporting on significant risks (46)	.22	.26	.41	.11	2.4
Administrators regard effective risk management as essential for achieving the institution's objectives (47)	.07	.37	.52	.04	2.5
Faculty regard effective risk management as essential for achieving the institution's objectives (48)	.51	.48	.00	.00	1.5

*Note.* Numbers in parentheses reflect the survey item number. Items in the first four columns reflect the percentage of participants responding at each level.

Nineteen items on the quantitative survey were about ERM maturity, asking respondents to rank their IHE's maturity on the four level scale. Table 5 shows the maturity items from the highest to the lowest levels. The overall mean maturity for IHEs in the sample is 2.4. No items

were rated in the fourth (highest) level of maturity. Two items were rated as being in the third level: (1) that a person or committee is in place to oversee ERM, and (2) that decentralized risk evaluation and prioritization is being performed.

The majority of the items (15) were rated in the second maturity level, ranging from 2.0 to 2.7. Items in the higher end of the developing level (2.5 – 2.7) indicate that IHEs are experimenting with ERM and that the risk strategy and framework is still under development. While senior administration and boards have an awareness of risk management, the understanding of risk management is limited to a small number of experts on campus who see risk management as essential to achieving the IHE’s objectives. Also in the higher end of the developing level are items that indicate that there is an attempt to tailor ERM to the IHE’s business practices and to standardize similar compliance practice. At the lower end of the developing level are items related to comprehensive, institution-wide practices, such as the integration of ERM with other organizational practices (including strategic planning), effective and efficient mechanisms for identifying and reporting on risks throughout the IHE, and ERM as a governance practice embedded in the culture of the IHE. Two items were rated in the first maturity level: (1) institutional decision-making involves the explicit consideration of risk, and (2) that faculty regard effective risk management as essential for the achievement of the institution’s objectives.

Table 5

*Mean Risk Maturity by Item – Highest to Lowest*

Survey Item	Mean Maturity
ERM responsibility (31) (there is a person/committee in place with the authority to enact changes regarding institutional risk management (31)	3.0

Table 5—Continued

Survey Item	Mean Maturity
A decentralized risk evaluation and prioritization is performed (35)	3.0
Experimenting with risk management (29)	2.7
Senior administration/board awareness of risk management (30)	2.7
Understanding of risk management in the institution limited to a small number of experts (31)	2.7
Risk management process is tailored to institution business practices	2.6
Some attempt to standardize similar compliance practices (36)	2.6
Risk strategy and framework is under development (33)	2.6
Administrators regard effective risk management as essential for achieving institutional objectives (47)	2.5
Risk management process is part of, not separate from, organizational processes (39)	2.4
Comprehensive and frequent internal and external reporting on significant risks and risk management performance contributes to effective governance (46)	2.4
The organization has a current, correct, and comprehensive understanding of its risk (43)	2.4
There are established identification and reporting mechanisms for risks in some areas of the institution (34)	2.2
There are links in some instances between risk management and strategic planning (37)	2.2
Risk management is seen within the organization as providing the basis for effective governance (45)	2.2
Risk management process is embedded in the culture and practices of our institution (41)	2.1
Risk management is embedded in all of the organizations practices in a way that is relevant, effective, and efficient (38)	2.0

Table 5—Continued

Survey Item	Mean Maturity
All decision-making within the institution involves the explicit consideration of risks (44)	1.9
Faculty regard effective risk management as essential for the achievement of the institution's objectives (48)	1.5
Mean Maturity	2.4

*Note.* Numbers in parentheses denote the survey item number.

### Results of the Qualitative Interviews and Document Analysis

I conducted interviews with the key informants and reviewed documents for each of the five cases in the qualitative portion of the study. Using the constant comparative method, interview data was collected during all phases of the study. For all institutions, I collected document data during the course of the literature review and throughout the course of the study. Key informants provided me with additional documents via email. I followed up with key informants at several points during the process via phone and email. Unless otherwise indicated by citation, quotations in the case studies are attributed to the key informant for that institution. A summary of key ERM attributes for the five institutions in the sample is provided in Table 6.

Table 6

#### *Case Study Sample Characteristics*

Characteristic	Institution				
	Emory	ECU	Grinnell	UVM	UW
Location	Decatur, Georgia	Greenville, North Carolina	Grinnell, Iowa	Burlington, VT	Seattle, Washington
Carnegie Classification	L4/HR RU/VH	L4/NR DRU	S4/HR Bac/A&S	L4/HR RU/H	L4/HR RU/H
Enrollment	14,469	26,887	1,655	12,723	44,786

Table 6—Continued

<b>Characteristic</b>	<b>Institution</b>				
	<b>Emory</b>	<b>ECU</b>	<b>Grinnell</b>	<b>UVM</b>	<b>UW</b>
Public/Private	Private	Public	Private	Public	Public
Name of ERM Program	Enterprise Risk Management	Enterprise Risk Management	Purposeful Risk Engagement Program	Enterprise Risk Management	Enterprise Risk Management
Year ERM Adopted	2006	2009	2013	2008	2006
Impetus for ERM: Administrative Level	President	Internal Audit	President	Board of Trustees	Board of Trustees
ERM Director Title	Chief Risk Officer	Assistant Vice Chancellor for ERM	Director of Purposeful Risk Engagement Program and Professor of English	Chief Risk Officer	Risk Analyst
ERM Director reports to	Vice President for Business and Administration	Vice Chancellor for Finance and Administration	Dean of the College and Vice President for Academic Affairs	Vice President for University Relations and Administration	Associate Vice President and Controller
Reporting Unit	Risk and Insurance	Finance and Administration	Faculty position with administrative responsibilities	University Relations and Administration	Financial Management
Named a Chief Risk Officer	Yes	Yes	No	Yes	No

Table 6—Continued

Characteristic	Institution				
	Emory	ECU	Grinnell	UVM	UW
ERM Committee	Audit and Compliance Committee of the Emory University Board	Enterprise Risk Management Committee	None	President's Advisory Committee on Enterprise Risk Management (PAC-ERM)	President's Advisory Committee on ERM (PACERM)
ERM Framework	Homegrown	ISO 31000	Homegrown	ISO 31000	COSO

### Case Studies

#### Case Study One: Emory University – Emory Healthcare

The Methodist Episcopal Church founded Emory College in 1836 in the small Georgia town of Oxford and moved to its present location in Atlanta in 1915. With a total enrollment of 14,724, Emory University is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award associate, baccalaureate, masters, doctorate and professional degrees. Emory University's mission is to create, preserve, teach, and apply knowledge in the service of humanity. With over 16,000 employees, Emory Healthcare is the largest and most comprehensive health system in Georgia.

**Key Informant.** Shulamith Klein is the Chief Risk Officer for Emory University and Emory Healthcare. She joined Emory in 1999 and has over thirty-five years of risk management and business insurance experience in the academic and healthcare sectors. Klein oversees Emory's risk financing program, clinical and non-clinical risk management activities, claims management, and a wholly owned captive insurance program for medical professional and



general liability exposures. In her current role, Klein chairs the Emory's Enterprise Risk Management Program, is a member of the Emory Breach Notification Team, Emory Healthcare's Labor Management Team, as well as the Risk Assessment and Prevention Committee. I interviewed Shulamith Klein in Phase 1 and Phase 3; corresponded with her via email; and prepared for and co-presented with her, at a higher education ERM conference.

**ERM Adoption.** Emory started their ERM program in 2006. The process began when “a number of developments, some national in scope and others unique to our campus, focused attention on corporate governance” (Klein, Mandl, & Sencer, 2008, para 2). On the national level, Enron and WorldCom had heightened the scrutiny of large corporations, including non-profits. At Emory, a new executive team – the president, provost and executive vice president for finance and administration – arrived in the same year. A strategic plan and a capital campaign was being launched. “Senior leadership wanted donors and other stakeholders to be confident that Emory was a worthy investment. Furthermore, Emory's leaders wanted a set of principles and practices in place to ensure adequate financial controls and to guide the university's response to adverse events” (Klein, Mandl, & Sencer, para 3).

The chair of Emory's audit and compliance committee of the board was familiar with ERM. He shared the merits of ERM with the president and the vice president for finance and administration. Because ERM was so new to higher education, there were few models to guide Emory's process. “None of these models, nor the several consultants eager to ply their trade, provided an existing protocol that Emory felt would results in a practical yet substantive ERM process conducive to widespread involvement and organizational ownership” (Klein, Mandl, & Sencer, para 5).

**ERM Implementation.** Having reviewed the available literature, taking into consideration own culture, Emory put together a set of five objectives for their ERM program: (1) the process should identify risks that could interfere with Emory's mission; (2) identification of the risks should help management decide either to accept the existing risk level or invest resources to mitigate it; (3) it should detail a plan for operational and communication responses to potential adverse events; (4) processes should be built to implement these plans; and (5) ERM should help eliminate surprises.

The next step Emory took was to create an ERM organizational structure. "A university environment does not generally lend itself to top-down instructions, and an ERM process that dictated, rather than persuaded, could have been a waste of time. Moreover, if the initial goals were too abstract, ERM would fail to garner the board support needed to have a significant impact" (Klein, Mandl, & Sencer, 2008, para 7). Emory created an organizational structure with each group having distinct roles and deliverables: an ERM executive committee, chaired by the president and senior executives, including the CEO of Emory Healthcare; an ERM Steering Committee, consisting of operational vice presidents and other senior administrators; eight ERM subcommittees, each consisting of administrators organized around subject matter areas whose members identify, analyze, and communicate about risks in their areas.

President Wagner and the ERM Executive Committee created and charged the ERM Steering Committee as follows:

The ERM Steering Committee shall conduct an initial risk assessment, involving broad consultation with those in the Emory community with knowledge of the range of risks facing the entire institution. The risk assessment process should produce for review by

the ERM Executive Committee a proposed list of the key risks, analyzed by the likelihood of adverse occurrence and severity of impact, and with an identified “Risk Process Owner.” The ERM Steering Committee shall also prepare detailed recommendations to the ERM Executive Committee for (a) implementation of the further stages of the ERM process, including preparation of mitigation plans, and periodic monitoring and reevaluation, and (b) a set of principles for guiding Emory’s response to adverse occurrences.

After several iterations, the Guiding Principles were adopted. They began with the agreed upon definition of risk:

Risk, in one form or another, is present in virtually all worthwhile endeavors. We recognize that not all risk is bad and our goal is not to eliminate all risk, for by doing so we would cease all productive activity. Rather our goal is to assume risk judiciously, mitigate it when possible, and prepare ourselves to respond effectively and efficiently when necessary.”

The Guiding Principles also included statements affirming that all individuals are empowered to report risk early on, without fear of retribution; investigations of adverse occurrences would be conducted with integrity; and communication with the campus and the public at large would be proactive, honest and respectful on individual privacy.

Next, Emory conducted a Risk Assessment. Concerned that a strategic level risk assessment would be too abstract, Emory started with “a bottom-up approach.” Each of the ERM subcommittees brainstormed risks within its domain, ranked as to likelihood of the adverse occurrence. This resulted in a list of 555 risks, each of which was rated on a four-point scale for both severity and impact. At that point, the Steering Committee reviewed the list and eliminated

duplicate risks, consolidated similar exposures, edited the risks for description accuracy – dealing with what they termed the “taxonomy challenge,” distilling the list to 141.

The Steering Committee then reassessed the frequency and severity for each risk. They found that giving equal weight to both likelihood and severity “skewed the rankings, as it overrated risks that are certain to occur yet have a moderate impact to the university, and underrated risks that are unlikely to occur, yet would have a catastrophic effect” (Klein, Mandl, & Sencer, 2008, para 17). The Adjusted Risk Factor gave 50% weight to the likelihood of occurrence. This resulted in the Top 50 risks, which were presented to the senior leadership.

Next Emory launched their risk analysis process. They knew they needed a written analysis of each risk, but they were also sensitive about asking administrators to document risks without solid justification. The Steering Committee developed a process that combined a written analysis with face-to face dialogue. The process has five steps: (1) identify a risk management process owner (RMPO) for each risk; (2) have the RMPO prepare a risk management plan of no more than 2 pages, (3) the RMPO engages in a face-to-face dialogue by presenting to the ERM executive committee at a quarterly risk hearing; (4) at the conclusion of each risk hearing, the ERM Executive Committee identifies any gaps between Emory’s risk tolerance and current status with respect to the risk; and (5) periodic re-evaluation of the risks throughout the year. The process repeats itself every year, and remains a top-down driven initiative, with Emory’s President kicking off the annual cycle.

**ERM Integration.** Emory has learned a lot as their ERM program continues to mature and expand. They recognized early on the importance of providing some context when explaining ERM to new people coming on board and as adverse situations arise on campus that require a response. “Administrators make decisions that involve risk every day, so incorporating

risk in the analysis is not a new concept, and it can be insulting to suggest to an experienced administrator that considering risk in an institution's decision making is a novel idea" (Klein, Mandl, & Sencer, 2008, para 30). To maximize engagement of an audience with limited time and energy, they provide clear instructions, timelines for deliverables and presentation templates." Emory's process primarily focuses on operational risks and does not attempt to replace the valuable strategic planning processes that Emory, like most other higher education institutions, engages in regularly" (Klein, Mandl, and Sencer, 2015, para 31).

### **Case Study Two: East Carolina University (ECU)**

East Carolina University (ECU) is a public university located in Greenville, North Carolina. ECU is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award bachelors, masters, and doctoral degrees. With over 27,000 students and 1500 faculty and staff, ECU has a 17:1 student to faculty ratio. ECU's mission is to be a national model for student success, public service and regional transformation.

**Key Informant.** Tim Wiseman is the Assistant Vice Chancellor for Enterprise Risk Management at the ECU. Wiseman joined the ECU administration in 2009 to develop, implement, and sustain the university's ERM program. In his role, he assists in the establishment of effective monitoring and control measures and advises senior administration officials on risk considerations for strategic decision-making. Wiseman joined the ECU administration during a period of increased emphasis on oversight, stewardship, governance, regulatory compliance and accountability, both within the UNC system and in the corporate business sector. A recognized ERM practitioner in higher education, Wiseman has recently made presentations at various ERM conferences and forums to include the Federal Enterprise Risk management Summit in Washington, D.C. and the Association of Government Accountants

professional development conference. Prior to coming to ECU, Wiseman served in various command and staff positions for 26 years as a finance officer and resource manager in the U.S. Army. Wiseman earned the Associate in Risk Management –Enterprise Risk Management (ARM-E) designation in 2012 and is a certified defense financial manager. I spoke to Tim Wiseman during Phase 1, corresponded with him via email, attended a conference where he presented on ERM, and spoke with him again in Phase 2.

**ERM Adoption.** ECU preceded adoption of an ERM approach with two years of “quiet phase” assessment of the need for an enterprise-wide risk management program and options for a related organizational structure. This study period included evaluations of risk management approaches at other institutions in the University of North Carolina system and the consideration of the benefits of a centralized versus a decentralized management approach to ERM. This preparatory time also allowed leaders to gain a better understanding of the differences between ERM and conventional “pockets” of risk management (e.g. facilities, insurance, and safety/hazard). This work laid the foundation for ERM program adoption.

ECU began their ERM program in 2009 with a “tone at the top” decision by Chancellor Steve Ballard and the ECU board of trustees who hired Tim Wiseman as the Chief Risk Officer. In 2009, Chancellor Ballard stated the following in his online publication, *The Chancellor’s View*:

Our goal at East Carolina University is to have the best possible systems for controlling our risks and for internal auditing. For that reason, in addition to our Office of Internal Audit and Management Advisory Services, we established the Office of Enterprise Risk Management (ERM) one year ago, and then hired Tim Wiseman to oversee our ERM work. I view this as a vital effort in maintaining and improving public trust in our university.

The mission for ECU's ERM program is to "provide leadership and management experience to better identify and manage the university's strategic, financial, operational, regulatory compliance, and reputational risks holistically as an enterprise'.

According to a presentation by Tim Wiseman at the 45<sup>th</sup> annual URMIA Conference in 2014, ECU's ERM approach was to:

- Work through the ERM Committee in a decentralized fashion to accomplish ERM goals;
- Improve risk measurement to support strategic decision-making, risk mitigation efforts, and resource allocation;
- Use pre-existing risk identification and internal control processes to the greatest extent possible;
- Raise institutional awareness of existing and emerging risks and their relative positional effect on the institution as a whole; and
- Provide training and relevant information on ERM to enhance the internal controls and risk management mindset of ECU employees, students, and other stakeholders.

**ERM Implementation.** After Wiseman began at ECU, he worked with others at the institution to establish a Risk Committee and the senior leaders at ECU published their expectations. ERM training was conducted by way of direct instruction from invited guest practitioners, focused sessions on basic ERM principles and frameworks, and through one-on-one sessions with key campus leaders. The following year, the first ERM top risk survey was conducted, along with the introduction of an Implementation Roadmap and Strategy. Wiseman utilized Gallagher Higher Education's *Road to Implementation: Enterprise Risk Management for Colleges and Universities* framework to organize his implementation plan into four phases: (1)

building the case for ERM, (2) building an ERM foundation, (3) implementation, and (4) sustaining the ERM program.

In 2011, ECU hosted a North Carolina ERM in Higher Education symposium, standardized their ERM Briefing formats, hosted a risk identification workshop for academic deans and directors, and began to integrate ERM with the Crisis Policy Team. In 2012, ECU conducted a risk mitigation survey using Qualtrics software. They hosted an ERM workshop on the Health Sciences Campus, Wiseman made office calls with executive council members, a risk review format was introduced, the results of the risk survey were shared with senior leadership, and formal appointments were made to the Enterprise Risk Management Committee. In 2013, Risk Working Groups were established along with Risk Management Process Owners. ERM training sessions and webinars were held. ERM, and the assessment of its effectiveness was clearly stated in the chancellor's goals.

In 2014, a risk assessment tool was developed. The risk assessments were done using the automated survey tool (Qualtrics) and the results were consolidated into a risk register and categorized. The Risk Committee prioritized and scored the risks and compiled them into a Heat Map. The findings were brief to senior leaders and the board of trustees Audit Committee. A two-year ERM Cycle Model was established. On the even years of the cycle, activities include full ERM surveys, risk prioritization, board of trustees and executive council presentations, and risk management plans. In the odd years, activities focus on smaller scale re-prioritization of identified risks, departmental workshops, interviews and "sensing sessions" and presentations to other key committees and constituents.

Implementation has not been without its challenges at ECU. Wiseman indicates that describing the ERM concept and differentiating it from other risk management and processes is



an ongoing activity. Also noted that a challenge was “convincing senior level executives and management to adequately consider second and third order effects of departmental decisions and initiatives on the enterprise as a whole.” He also cited “departmental defensiveness related to respective areas of responsibility” as a challenge.

**ERM Integration.** ECU has completed all Phase 1 activities (understanding the institution’s plans, environment, and culture, determining the status of existing risk management processes, stating clear goals and objectives for the ERM program, and obtaining top-level support) and most of Phase 2 activities (naming a CRO, project planning and timeline, selecting the ISO 3100 framework, creating a cross-functional risk council with a mission and goals, developing a risk portfolio, and assessing and prioritizing risks). They are continuing to work on some Phase 2 activities and key Phase 3 activities such as developing the risk vocabulary and definitions, assigning risk ownership to take action on key risks, assessing the results of risk mitigation plans, and reviewing and realigning risk treatments. They continue to work on developing institution-wide systems for communicating the purpose, processes, and impact of the ERM program.

One challenge with integration for ECU has been “turnover of senior management and governing board members, resulting in the need to re-introduce ERM concepts and practices”. Wiseman also cited “the difficulty of getting ERM items into the strategic planning and consideration of new initiatives processes.” Wiseman said it was difficult to “balance between educating various types of campus leadership groups about the importance and practice of ERM while simultaneously providing the practical risk management applications to business units, all in the context of shared governance between faculty, administration, and student government.”

Wiseman indicated that ECU views ERM as valuable as the process regularly demonstrates the benefits of coordinating the activities of ERM, legal compliance, and internal audit. Additionally, ERM risk assessments and recommendations positively influence annual audit plan development and the apportionment of internal control resources, which in turn, leads to better stewardship of constrained resources.

### **Case Study Three: Grinnell College**

Founded in 1846, Grinnell College is a private, coeducational, residential liberal arts and sciences college located in Grinnell, Iowa. Grinnell confers Bachelor of Arts degrees in 26 major fields. Grinnell has an enrollment of approximately 1600 undergraduates, 13% of whom are international and 22% are U.S. students of color. Sixty-nine percent of Grinnell students graduated in the top 10% of their high school class. One third of Grinnell students engage in varsity athletics and two thirds engage in community service. With a strong commitment to social responsibility, Grinnell has a 9:1 student/faculty ratio, offers over 500 course offerings each semester, and most classes have fewer than 20 students. Grinnell is consistently ranked among the nation's best liberal arts colleges. I spoke with Paula Smith during Phase 2 of the study, followed her ERM blog (*The Prepared College, Purposeful Risk Engagement at Liberal Arts Colleges*), and she sent me an advance copy of the final chapter of her forthcoming book on ERM, *Engaging Risk: A Guide for College Leaders*.

**Key Informant.** Paula Smith is the Director of Grinnell's Purposeful Risk Engagement Project and a Professor of English. She is a scholar and writer who joined the faculty of Grinnell College in 1987 and served as Vice President for Academic Affairs from 2008 to 2013. Before her appointment as the college's Chief Academic Officer, Smith served as chair of the English

department, as director of the visiting writers program, as a member elected at-large to the Executive Council, and as associate dean of the college.

**ERM Adoption.** Dr. Raynard S. Kington was appointed president of Grinnell College in 2010. Before coming to Grinnell, Dr. Kington served in a range of positions at the National Institutes of Health (NIH), including NIH principal deputy director and NIH acting director, NIH associate director for behavioral and social sciences research, and acting director of the National Institute on Alcohol Abuse and Alcoholism. Prior to NIH, he was a division director at the Centers for Disease Control and Prevention, where he led the National Health and Nutrition Examination Survey, one of the nation's largest studies assessing the health of the American people. Coming from this professional background in the health sciences, at one of the first meetings of the president's cabinet Dr. Kington asked about the college's risk management plan. He was surprised to learn that Grinnell did not have one and he stated his intention to develop one. According to Smith, "the concept of ERM was new to all in the cabinet, even the treasurer." "We were at a loss," she stated, "but the seed of the idea was born."

**ERM Implementation.** Because Grinnell had such a "steep learning curve," they engaged a team from PricewaterhouseCoopers to get them started with risk assessment. When the consultants produced their risk prioritization results, the president and his cabinet saw limitations in how the consultants were trying to "impose that standard industry ERM model" and that there was something "off kilter" about how priorities were ranked, such as placing academic excellence and strengths half way down the list as factors contributing to reputational risk. Feeling that "academic quality [was] paramount," they wanted to "turn the list inside out." They hoped that Grinnell's academic mission could take center stage. According to Smith, "the

corporate model can take a single-minded approach. A college's idea of risk involves more than the financial bottom line. Many things we care about weren't getting captured."

Smith has always been fascinated by how change happens, as well as interested in "governance, power and institutional decision-making." According to Smith, "risk management is all about decision-making: who makes decisions and who drops the ball." She noted that people who are interested in literature and writing are interested in risk because risk and its resolution are part of any good plotline. Near the end of her term as the Chief Academic Officer and dean of the college and about to transition back to the English Department as a faculty member, she approached President Kington and asked about taking "a pause to [help Grinnell] work through ERM and develop ideas for an ERM program." The president was very positive about the idea and her research began.

Smith did lots of reading and talked with a wide variety of people, actively trying to apply what she was learning and hearing on campus and in her writing about ERM. Designated to "spearhead" Grinnell's ERM process, Smith set out on her "campus tour of risk," engaging people from all over campus in "honest conversations about risk in their part of the college." Involving her colleagues on Grinnell's senior leadership team, she started a blog titled *The Prepared College: Purposeful Risk Engagement at Liberal Arts Colleges*. On the blog, Smith posted risk management resources and concepts arising from her conversations with college leaders, developing sixty short essays that ranged in topic from "no time for a broad look at risk, I'm busy running a college" to "hazards of academic inquiry: teaching the lessons of risk." The blog tracked Grinnell's "voyage" through that first year of ERM implementation, in which the stated purpose was to:

- identify and rank key risks across the areas of a liberal arts college;

- develop an action plan with college leaders to monitor and address the key risks;
- raise campus awareness and find the most successful ways to communicate about risk, both internally and externally; and
- integrate the new protocols for risk identification, monitoring, management, and communication as an essential part of ongoing college governance (planning, budgeting, policy formation, everyday decision-making, and evaluation of outcomes).

Smith felt that she was in a good position to generate these risk conversations across campus because she had just stepped down from her role as the Chief Academic Officer and was used to having conversations with those who had recently reported to her. She also had a “learning curve” as she began to uncover aspects of risk in areas of campus where she was less familiar. She was familiar with the campus, its people and she understood Grinnell’s governance structure and process.

Early on, Grinnell made a decision about what to call their program. They chose the name Purposeful Risk Engagement Project (PREP) because the idea of engaging risk means that Grinnell is focused not just on management, but on the entire risk cycle from initial identification through mitigation and tracking. They also were deliberate about the involvement of faculty and their role not only in approving risks identified by the administrators, but in helping to select and prioritize Grinnell’s top risks. Smith believes that Grinnell is one of the only places aspiring to this level of faculty involvement, with the Faculty Executive Council involved in the risk ranking process. Without shared governance, risk management leaves out an academic perspective that can only be supplied by the faculty. Grinnell was also intentional about not creating a lot of new committees or structures as they formed PREP. They wanted to “infuse PREP throughout the existing structure.”

**ERM Integration.** Grinnell has had its share of challenges in adopting PREP. Less than two years in, the program hasn't yet matured. When asked to describe the challenges, Smith articulated that "there is a real challenge in measuring how ERM has added value." She noted that "the more tightly integrated ERM is with the governance structure, the harder it is to isolate which positive contributions can be credited directly to ERM." Grinnell has been successful in one of its goals - to not create new layers of committees or staffing, but instead integrate ERM into existing processes and practices. She notes that "the language of risk has given us a common model and approach, but it's often hard to say whether [decision-makers] would have come up with the same good decision using another method."

Smith used prevention of student suicide as an example, noting that Grinnell fortunately hasn't seen one in recent years, which in itself raises the question of whether or not that is attributable to "simple probabilities or good prevention?" Her conclusion is that: You can't measure risk based on the catastrophic. You need to dive into small things that are indicators, like suicide threats and increased use of counseling, etc. How close did the crisis come and what did you do to contain and take care of it? We need to focus on the micro level to keep improving our processes, to keep lowering our chances.

How does Grinnell determine whether PREP is creating value for the institution? Smith shared insights both from her direct work at Grinnell's campus and from her dialogues with colleagues at many other small liberal arts colleges around the country. Smith reported that to learn from quantitative data, Grinnell currently is mapping the key institutional metrics regularly reviewed by the Board of Trustees onto the list of top institutional risks. For those issues readily translatable into numbers (such financial and enrollment statistics) or tasks reducible to a checklist (such as those related to regulatory compliance), measuring the value of new risk-

informed actions and decisions can take place on a quantitative scale. However, for the great majority of risks—including many aspects of campus security, academic integrity, and program accessibility—the contribution of ERM can only be evaluated qualitatively. For example, it is possible to describe gaps and shortcomings that have been addressed in a way that may reasonably be expected to lower the likelihood and/or soften the impact of a possible negative event. In Smith’s view, Grinnell’s experience shows that the most important value added by a risk program is “the accountability it places upon leaders to decide collectively where to focus institutional energies, to practice the discipline of gathering all available knowledge that casts light on the future, and to question those too-easy assumptions that can bring about the downfall of institutional plans and decisions.”

#### **Case Study Four: University of Vermont**

The University of Vermont (UVM) was founded in 1791 and is the fifth oldest university in New England (after Harvard, Yale, Dartmouth and Brown). “UVM” stands for the Latin words *Universitas Viridis Montis* -- University of the Green Mountains. UVM is the first institution of higher education to declare public support for freedom of religion and the first university to admit women and African-Americans into Phi Beta Kappa honor society.

UVM offers 100 majors in 7 undergraduate schools and colleges and has 46 master's degree programs, 21 doctoral programs and an M.D. program. UVM is accredited by the New England Association of Schools and Colleges. Enrollment at UVM is approximately 9,958 undergraduates, 1,371 graduates, and 459 medical students. UVM has 1,098 full-time and 266 part-time faculty, with 92% of full-time faculty holding a Ph.D. or the highest degree in their field. The undergraduate student-faculty ratio is 16/1 and the average class size is 30.

Undergraduates are enrolled from 48 states and 65 countries, with 554 international students. There are 18 Division I athletic teams (8 men's and 10 women's).

**Key Informant.** Al Turgeon is the Chief Risk Officer at the University of Vermont (UVM). Reporting to the Vice President for University Relations and Administration, he works with senior leaders to identify and respond to enterprise risks. A product of the "ROTC era," Turgeon retired from the United States Army in 2003 came to UVM as the Executive Assistant to the Vice President for Finance, who then promoted him to Senior Strategist for Enterprise Risk and Planning, providing the authority for him "to look at strategic and risk and help design an ERM program to bring to the university." In 2012, the president named Turgeon UVM's Chief Risk Officer, although he does not supervise the Director of Risk Management and Safety, an operational area of UVM. Turgeon's role is that of an "independent, one-person, internal consultant for senior staff and the president; and although [he] reports to a vice president, focuses on strategic risk analysis work and maintaining an ERM program which provides a portfolio view of risk and opportunities at the university."

**ERM Adoption.** UVM's ERM program began in 2008 during the financial crisis, and, as Turgeon pointed out, when a Deloitte and Touche audit identified weaknesses in UVM's internal control environment. The board of trustees wanted "assurance that the University was paying attention to its enterprise risks and responding to them in a timely fashion," and told the president to start an ERM program. The president directed the CFO and then he tagged Al as senior strategist to launch ERM. In 2009, a follow up by Price WaterhouseCoopers endorsed the proposed ERM program, noting it as a "leading practice." President Fogel approved the ERM program and appointed Richard Cate, UVM's Vice President for Finance and Administration as



UVM's Chief Risk Officer. At the same time, the Board of Trustees Audit Committee formed an ERM Working Group.

**ERM Implementation.** In 2010, the first ERM Advisory Committee was established and began developing the ERM program. The Board of Trustees called for an external consultant review of the ERM implementation plans which was conducted by Arthur J. Gallagher, who issued an independent report of UVM's efforts to date. The President's Advisory Committee on ERM (PAC-ERM) was established and additional research and benchmarking on ERM best practices was conducted.

In 2011, the PAC-ERM co-chairs and the Deputy Compliance Officer interviewed senior officials to identify risks and opportunities facing UVM. Turgeon and Emily Stebbins-Wheelock worked to develop the ERM Program Guide that outlined the purpose and goals, guiding principles, framework, roles and responsibilities, and institutional risk philosophy statement were developed. "We felt like we needed to completely design the program and build our education and training materials. We designed the program and explained how all the parts worked, roles and responsibilities, committees work, and structure and we put that in the Program Guide." The Program Guide was endorsed by the Board of Trustees ERM Working Group, Audit Committee, and Committee of the Whole.

Even though Turgeon and the committees provided roadmaps and structure, there was still broad participation in the evolution of the ERM model. He explained that "adoption past the board and president and vice presidents is seeping to other levels. The University community acceptance is good." One reason for this is the CRO's approach. He asks senior leaders and key staff to "weigh in" and "give their perspective when I update the annual heatmap for the

university. I present the map with all the risks and opportunities and ask “Is this right?” They validate it. They give input.”

In 2012, the risk and opportunity impact and likelihood assessment scales and heat map were developed. Turgeon explained the process that he uses.

We are still somewhat siloed in higher education. My role has been to bring the right expertise to complete a risk analysis. Let’s look at all the multiple categories of risk. In my CRO role, sanctioned by the president (which helps), I have been able to get my colleagues to help. I do the first draft of the risk analysis and ask colleagues to build on and validate it. That’s how I’ve gotten buy-in. I try to think like each VP.

In 2012, The Audit Committee supported the administration’s recommendation not to adopt a formal institutional risk tolerance statement. The PAC-ERM Advisory Committee was revised and reestablished. At the provost’s request, a risk assessment of International Enrollment Initiative was conducted. An initial set of risks and opportunities (UVM Preliminary Risk Inventory) was compiled and sent to the Responsible Officials for assessment and scoring.

In 2013, UVM’s first draft risk-opportunity portfolio was presented to the president’s senior leadership and Responsible Officials (ROs) were designated. Even though many of the risks identified were cross-silo, involving many areas of campus, Turgeon explained that “we were firm about whether the item is designated as a risk or opportunity and about one senior leader being designated the responsible official.” In July of 2013, Turgeon was officially appointed as UVM’s CRO. A second draft of the Risk-Opportunity Register-Portfolio and associated Management Response Plans (MRPs) were approved by President Sullivan. The Risk Portfolio and MRPs were presented to the Board of Trustees’ Audit Committee and the

Committee of the Whole. The UVM ERM Guidelines were approved by the president and the board Audit Committee.

**ERM Integration.** In 2014, the president kicked off the second annual risk assessment process and the CRO briefed the board Audit Committee on the results of the previous year's risk assessment. The third annual risk assessment cycle was launched in March of 2015.

Turgeon acknowledges that ERM is a process and that it does not "happen overnight." "It's been a ride. There was opposition in the beginning. Now I see leaders using risk assessment as a way to better manage their risks and to leverage their resources, which is fine."

### **Case Study Five: University of Washington**

Founded in 1861, the University of Washington (UW) is a public university enrolling some 48,000 students and awarding approximately 10,000 degrees annually. The institution also serves approximately 47,000 extension students. There are nearly 650 student athletes in UW's 21 Division I men's and women's teams. There is a faculty/staff of over 40,000, making UW the third largest employer in the state of Washington. The university is comprised of three campuses with 17 major schools and colleges and 13 registered operations abroad. It has a \$5.3 billion annual budget, with \$1.3 billion in externally funded research and \$2.6 billion in clinical medical enterprise. UW has been the top public university in federal research funding every year since 1974 and has been among the top five universities, public and private, in federal funding since 1969. The university has an annual \$9.0 billion economic impact on the state of Washington.

**Key Informant.** Andrew Faris is the former Risk Analyst in the Enterprise Risk Management Program in the Financial Management division of the University of Washington. In the summer of 2015, Faris' position and responsibilities changed as he moved to the Strategy Management Office, where he is responsible for Metrics Analysis and Reporting for the UW. I

collected data from UW during the field test and Faris was an attendee at an ERM conference where I was a presenter, allowing the opportunity for further dialogue. I spoke with him and emailed with him again during Phase 2.

**ERM Adoption.** An early adopter in higher education, the University of Washington's (UW) ERM program started in 2005. At the outset, the objective was for UW to create "an excellent compliance model built on best practices, while protecting its decentralized, collaborative, and entrepreneurial culture." The process has been what Ann Anderson, associate vice president and controller, terms a "journey of discovery."

As with most higher education institutions, especially research universities as large as UW, along with the core business of teaching and learning, the faculty are focused on the creation of new knowledge. "The University of Washington is a decentralized yet collaborative entity with an energetic, entrepreneurial culture. The community members are committed to rigor, integrity, innovation, collegiality, inclusiveness, and connectedness" (Collaborative Enterprise Risk Management Final Report, 2006, p. v). Organizationally, the institution is divided into silos, which has historically focused risk mitigation within those silos. "Due to its size, decentralization, and complexity of the institution, a proliferation of compliance, audit, and risk management activities has grown up around separate and distinct risk areas, each largely operating in a self-defined stovepipe" (Collaborative Enterprise Risk Management Final Report, 2006, p. 18).

Faculty innovation and the idea of compliance don't always go hand in hand in higher education, and UW is no exception. Research associate professor David Lovell, vice-chair of the faculty senate in 2007-2008 expresses it well:

'Compliance' [is] not necessarily a good word for faculty members....What lies behind

[that] is the high value faculty accord to personal autonomy....The notion of a culture of compliance sounds like yet another extension of impersonal, corporate control, shrinking the arena of self-expression in favor of discipline and conformity....Over the last ten months, I've come to understand that you're [risk managers] not here to get in our way, but to make it possible for us faculty legally to conduct the work we came here to do....I hope that working together, we can try to spread such understanding further so that we can make compliance – or whatever term you choose – less threatening to faculty and frustrating to staff (Annual ERM Report, pp. 6-7).

The ERM program began with what administrators call a “sentinel event,” settling a Medicare and Medicaid overbilling investigation by paying the largest fine by a university for a compliance failure - \$35 million. In 1999, Mark Erickson, a UW compliance officer, filed a complaint alleging fraud in the UW's Medicare and Medicaid billing practices. The complaint prompted a criminal investigation, guilty pleas from two doctors, and a civil lawsuit resulting in a \$35 million settlement. The federal prosecutor claimed that “many people within the medical centers were aware of the billing problems” and that, “despite this knowledge, the centers did not take adequate steps to correct them” (Chan, 2004). UW's 2006 ERM Annual Report acknowledges that, in addition to the direct cost of the fines, there were also indirect costs in terms of additional resources for reviews of university procedures, increased rigor and frequency of audits, and an incalculable damage to the university's reputation. At the time of the medical billing scandal, Lee L. Huntsman was president of UW. On June 14<sup>th</sup>, 2004, Mark A. Emmert, a UW alumnus, was appointed the 30<sup>th</sup> president of UW.

**ERM Implementation.** President Emmert formally charged senior administrators in 2005 with the task of identifying best practices for “managing regulatory affairs at the

institutional level by using efficient and effective risk management techniques” (UW ERM Report, 2008, p. 4). “With the most recent example of compliance issues, we have again been reminded that we have not yet created a culture of compliance that we have discussed on many occasions.” President Emmert charged V’Ella Warren, vice president for financial management, and David Hodge, dean of the college of arts and sciences, with conducting a preliminary review of best practices in compliance and enterprise risk management in corporate and higher education institutions. Warren engaged the executive director of risk management, Elizabeth Cherry, and the executive director of internal audit, Maureen Rhea, to conduct a literature search on ERM, especially in higher education. Cherry and Rhea engaged Andrew Faris, risk management analyst, to assist, and the three spent nearly two years conducting the literature search and finding out how risk management was functioning at other campuses. They also piloted risk assessment processes with various departments at UW. Faris notes that “early on, we didn’t have many challenges. We had full support of the President (Mark Emmert), the Board, Internal Audit, and Risk Management.”

Based on their findings, a draft report was compiled in 2006 to provide initiative guidance on the development of a UW-specific framework. The report provided an overview of various approaches to compliance, described best practices at four peer institutions, and offered suggestions for action that UW might take in the effective management of compliance and risk. The proposal recommended that “the UW adopt an integrated approach to managing risk and compliance, commonly called enterprise risk management (ERM).”

Once ERM was officially launched at UW, the first few years of implementation focused on risk assessments. Faris and his risk analyst colleague, Kerry Kahl, spent most of their time performing risk assessments using the risk mapping process. In the first five years, they

conducted nearly 35 risk assessments across the university. The first five years of ERM at UW were “formative” and focused on the following key activities:

- developing a common language around risk
- conducting initial risk assessments
- focusing discussion and mitigation on financial and enrollment challenges
- comparing financial strengths (as gauged by Moody’s Investors Services) against peers
- drafting an initial compendium of enterprise-wide success metrics

Since 2006, the primary focus of UW’s ERM program has been directed towards building a solid foundation through the establishment of oversight structures, a risk assessment toolkit, and a common language for risk categorization and discussion. The 2006 recommendation report outlined three guiding principles to shape the evolution of ERM at UW: (1) foster an institution-wide perspective, (2) ensure that regulatory management is consistent with best practices, and (3) protect UW’s decentralized, collaborative, entrepreneurial culture. UW defines ERM according to the interpretation of the Committee of Sponsoring Organizations of the Treadway Commission (COSO) model, working with COSO directly to adapt the framework to fit the university environment.

When appointed to serve on the President’s Advisory Committee on ERM (PACERM) in 2007, Professor Daniel Luchtel commented, in the context of talking about risk assessments, that “the number of issues and their complexity is stunning. The analogy that comes to mind is trying to drink water from a fire hose” (UW 2007 ERM Annual Report, p. 4). The 2013 – 2014 report (most recently published online) indicates the following top five risks for UW: changing

demographics, changing revenue streams, maintaining safety, cost of regulatory compliance, aging infrastructure and operational systems.

The organizational structure for ERM at UW arose out of the initial recommendations of the Strategic Risk Initiative Review Committee (SRIRC) with broad university representation. In its aggregate, the UW ERM program is comprised of the following areas, working together to create an effective structure: UW unites; ERM staff; Compliance, Operations, and Finance Council (COFi); President's Advisory Committee on ERM (PACERM); Internal Audit; and the UW president.

At the unit level, staff and faculty take ownership of the activities that give rise to risk. They conduct risk and opportunities identification and self-assessments. They develop strategies and take action to mitigate and monitor risk. They are encouraged to share a summary of their risk assessments with the Office of Enterprise Risk Management.

The COFi Council, led by the executive director of audits, take a middle-up, cross-functional view of risks and opportunities, particularly items that have university-wide potential impact or where supervisory authority for various aspects of the risk reside in different departments or divisions across the university. The COFi Council has oversight of risk assessment at the division or functional level. It provides approval of methods to monitor risk and identifies topics for outreach. Co-chaired by the provost and the senior vice president for finance and facilities, PACERM has oversight of risk assessments at the entity level. Taking a top-down view of risks and opportunities, PACERM advises the president and other senior leaders on the management of risks and opportunities that may significantly impact strategic goals or priorities.



**ERM Integration.** “The UW does not formally integrate risk and compliance into its strategic conversations at the university-wide level.” The 2006 report noted: “Although many operational units, committees, and administrative bodies handle the risks faced in their own environments well, there is little cross-functional sharing of information. The opportunity aspect of risk is therefore not fully utilized by the University and risk mitigation priorities are not consistently driven by the institution’s strategic objectives” (p. 4). Faris notes that “ERM began bottom up, so everyone was involved.” Faris also notes:

Looking back, we were challenged with (a) annual report writing because it was difficult to balance not providing enough detail against providing too much detail about risk issues. Eventually, we found the right mix, but it wasn't easy – and we struggled to establish an "annual report template" that we could use year-to-year; (b) Not overselling qualitative risk assessments. Early on, many committee members found the qualitative assessments of risks difficult to interpret. As a result we revised our assessment scale from 1 -3 ranking, to a 1 - 5 ranking. We also created a validation matrix to outline three different "levels of analysis" for each risk map (e.g., basic, intermediate, advanced), and we footnoted each risk map with a validation statement.

There has been a lot of discussion about ERM ownership at the senior levels at UW as well as integrating ERM with Strategic Planning, but turnover in the President's Office has impacted UW's maturity. Since 2006, UW has had two different Presidents and two interim Presidents. According to Faris:

Ultimately, this affected the UW's use of ERM information. We did a lot of retrospective analysis of resources allocated to units, and aligned them with top risks to demonstrate risk mitigation. We've set the stage to be more proactive and develop

forward looking methods to integrate risk information with the planning cycle and budgeting processes.

Faris now has a new role at UW, and his position is part of the UW Organizational Excellence (OE) Program. OE is sponsored by the Provost and the President and is part of the UW Sustainable Academic Business Plan, which is intended to help Schools/Colleges and support units improve their organizational effectiveness. The plan to reorganize the Office of Risk Management into Compliance and Risk Services is underway, and Elizabeth Cherry now reports to the Provost. While this reorganization takes place, ERM remains “on hiatus” until 2016.

### **Discussion of Findings**

Using the constant comparative method for qualitative and quantitative data collection, analysis, and literature review, the following findings regarding ERM programs at IHEs in the U.S. The sources to support the findings are outlined in Appendix J.

1. **ERM as a concept and process has renewed attention in higher education after a flurry of interest in the early 2000s and then a hiatus.** Interest in ERM at IHEs began in the early 2000s (after the SEC regulations were imposed in the corporate sector and the COSO model development) and then had a dip. The earliest program in the study was launched in 2002 and the most recent in 2015, with programs in place an average of 6.2 years. Some early IHE ERM programs plateaued in terms of maturity or changed direction and are regaining traction. Many more new programs are being launched as IHEs explore ERM and find other higher education models and tools available. Some of those IHEs exploring ERM may not have taken the action step to hire a CRO, designate a committee, or state that they “have” ERM yet, but ERM is increasingly recognized as a

best practice in higher education. At the beginning of this study, I compiled a list of 25 institutions with ERM programs; at the completion of the study, that list had grown to 68 and there are likely many more IHEs in the exploratory stages of ERM.

2. **IHEs primarily use the term “ERM,” but they are uncomfortable with it and are experimenting with other terms – or not using the term at all.** Higher education’s comfort level with the ERM term is in transition and while many still use the term (76%), some more recent adopters are experimenting with terminology that fits the higher education culture. In addition, under the label ERM in higher education, there is a bifurcated use: some using the ERM term are compliance and insurance based, with a more traditional operational approach - highlighting the use of the five stage risk management process throughout the organization as evidence of an ERM program. Others seek the integration with strategic and institution-wide perspective as the primary focus of ERM, viewing operational, compliance, financial, and safety risk management as elements of an institution-wide ERM framework linked to institution-wide objectives. The range of programs under the ERM label is reflected in the alternative terminology ranging from Risk Control to Purposeful Risk Engagement Program and Strategic Risk Management.

3. **Cited as a “best practice,” the impetus for the ERM program initiates with the president or the board, but often there is compliance or governance failure “driver.”** Some ERM programs, particularly early adopters, may have been initiated by a vice president of finance or risk manager who learned about ERM as a best practice and brought the model to the IHE. While the survey reveals that ERM is often mandated by the board or president (55%) and cited as a “best practice” (75%) rather than a

compliance failure (6%), qualitative findings indicate that there is often a compliance or governance “trigger” that causes the president or board to adopt ERM. Increasingly, IHEs are adopting ERM without the compliance failure jumpstart, particularly as more presidents and boards become familiar with the ERM concept and its transferability to higher education.

4. **The role and organizational placement of the risk manager in higher education is evolving and expanding.** Currently, most risk managers are administrators with bachelor’s and master’s degrees and also ARM and CPA designations, who have an average of 11 years with their current institution. They hold a variety of titles and are often located in the business and finance area. A little less than half of them hold the title “CRO.” In more recent adopters, the risk manager holds a senior level appointment, sometimes in a newly created position. In most instances, some administrator has been designated to coordinate and lead the ERM effort, even if that is not the “risk manager” at the IHE. The “CRO” is responsible for process functions, such as ERM education at the IHE, as well as product responsibilities, such as development of templates for risk reporting and preparing risk management materials for the senior leadership and board. Al Turgeon of UVM describes his role as “a one-person internal consultant for senior staff and the president.” Increasingly, the role of the “CRO” is that that of a seasoned administrator with a deep understanding of the higher education environment, able to judiciously navigate the organizational structure, knowing when to push forward with product pieces (such as risk registers, risk mitigation plans, and heatmaps) and when to focus on process elements (such as one on one conversations with key stakeholders to gain support and understanding, risk workshops with groups, and conversations with

colleagues from various areas of the institution). Paula Smith describes them as “stewards” of the ERM process and says “this person’s rank in the administrative hierarchy is far less important than the traits of being well-known and highly respected, able to maintain good, energetic, working relationships with faculty and administrative leaders across the campus.”

5. **Most IHEs have an ERM committee (although the name of that committee and its location within the organization varies).** While the administrator tasked with ERM plays a central role in ensuring that the ERM program as a whole moves forward, that administrator does not implement ERM alone. Even in instances where a CRO has been named, IHEs have chosen to administer their ERM programs through a committee structure, in keeping with the shared governance culture of higher education. There is no consistency with how IHEs are using risk committees. In many instances, the risk committee was created as one of the first risk management activities in the first phase of ERM implementation, often with a “charge” from the president to signal the ERM adoption. Often, an initial task of these committees was to survey the ERM landscape and identify higher education models and suggestions for implementation. Forming a separate committee with the responsibility of reviewing the identified risks, engaging in risk analysis and prioritization, reviewing and responding to risk mitigation plans, and reporting findings to campus constituents is common practice. Many IHEs have various levels of committees – one at the more senior level that includes the president and/or senior leadership and another at a more operational level that is involved at a more detailed level with the risk owners. For more recent adopters, IHEs are experimenting

with integrating ERM into existing management and governance structures, rather than creating new committees.

6. **Almost half of the IHEs use a homegrown ERM framework or no framework at all; the rest use the COSO or ISO 31000 framework.** Administrators describe a lack of “fit” between the models presented to them by consultants or available in the literature. In terms of standardized risk management frameworks, approximately one third of survey respondents indicated that their framework is homegrown (31%), with 38% using the COSO framework and 21% using ISO 31000. Ten percent indicate they do not use a framework. This aspect of ERM is not that far off from parts of the corporate sector. While many financial institutions use the COSO framework based on SEC guidance, 49% say that they do not use or follow a specific framework or standard (RIMS, 2011). This may be more a matter of ERM maturity across all sectors. Since ERM is so new in general (with COSO guidance issued in 2004 and reissued in 2013 and ISO 31000 in 2009), many higher education institutions have gone their own way, picking and choosing from the literature and applying aspects that appear to fit their current understanding and culture. As all organizations mature with their ERM process, including IHEs, institutions just adopting ERM may have the benefit of starting with a framework to guide them, which may expedite their movement through the four maturity stages with the cycles.
7. **The majority of IHEs do not have a written risk management policy and most have none of the traditional elements of a risk management policy including risk appetite and risk tolerance statements.** Most corporate ERM implementations start with codifying the ERM process, rationale, and goals in a written risk management policy.

This is one area where higher education is directly opposite from corporate practice, with 90% of the IHEs in the survey reporting that they do not have a written risk management policy and only 18% with a risk appetite statement. This may be an indication that higher education is lagging behind in risk maturity or it may also be that IHEs have intentionally chosen not to focus on this element. Perhaps some of the initial memos from presidents and whitepapers developed by ERM committees that articulate the ERM goals replace the written policy at IHEs. Emory, for example, has ERM Guiding Principles rather than an ERM policy. Administrators describe the difficulty of writing risk appetite statements at IHEs with a complex three-fold mission (teaching, scholarship, and service), as well as the concerns over accountability with open records laws and public board meetings.

8. **Most IHEs have a list of “top risks” that are reviewed by the board.** Once the ERM program is adopted, there is a desire and request to see a tangible product. The list of “top risks” is a common product (83%) developed through the risk identification, evaluation, and prioritization process, by the ERM committee, CRO, and/or senior leadership. This list is often presented to the full board or the audit committee. While these top risks exist and are being reported, they are often not directly connected to other planning and reporting, such as the strategic plan, institutional key performance indicators, or financial or master planning. The institution-wide top risks are generated in a variety of ways, including through interviews, workshops, surveys, and using higher education sector lists. Most IHEs generate hundreds of risks initially, which are then pared down to approximately ten. Common categories for top risks include enrollment (management and/or targets), IT and data security, facilities and infrastructure, funding model and budget forecasting, research (compliance and volume), quality and delivery of

academic program, and health and safety issues. Early adopters were forced to spend time identifying institution specific risks, as the industry itself was so immature in terms of ERM. As more IHEs adopt ERM, typical IHE risks (grouped by organizational category) are more readily available.

9. **ERM is not understood or endorsed by the faculty.** The lowest factor on the risk maturity scale (1.5) for IHEs in the quantitative sample was this statement: faculty regard effective risk management as essential for achieving the institution's objectives. This may be, in part, due to the fact that ERM originated in, and often is still organizationally housed in, the business and finance unit, thus creating the impression that ERM is only about safety, financial, and insurable risks. It may also have to do with the fact that most ERM committees have limited faculty involvement, thus making it an administrative initiative rather than a part of the institution-wide shared governance. Institutions are moving to integrate ERM with the academic governance of the institution, which will allow for a deeper understanding on the part of faculty of the purpose of ERM and include their perspectives on strategic institutional risks in a more meaningful way. Grinnell has engaged the Faculty Senate in a comprehensive way, involving them in the entire ERM process, not just through representation on a college-wide committee. One administrator stated "ERM will not flourish without the involvement of the faculty."
10. **ERM in higher education is not embedded into institution-wide governance and decision-making.** The degree of ERM maturity is measured, in part, by the degree of integration of risk management and discussion of risks that may impede meeting objectives into senior level decision-making and institutional governance. While IHEs often state a goal of ERM as integrating risk management with decision-making, the



responses on the survey indicate that administrators do not believe this is happening at present at their IHEs in a very mature manner. However, qualitatively, they describe one of the main values of ERM as being a more comprehensive view of risk across the organization, allowing them to attend to previously undocumented or unmitigated risks in a more proactive manner, thus reducing surprises. They articulate that ERM has allowed the senior administration to incorporate risk conversation into strategic discussions and conversations, something that was not happening previously. However, it may be that those conversations and that increased awareness has not yet translated into outcomes such as integration with the IHEs strategic plan or other management practices and planning documents.

**11. When describing ERM “value,” there is a tension between process and product**

**outcomes.** While most of the ERM literature describes the ERM process as being important, most ERM literature about what ERM is and how to implement it begins with a description of the risk identification, evaluation, and mitigation cycle and the associated templates, forms, tools, and methods to develop products such as heatmaps, risk registers, and “top ten risks.” Often, when IHEs don’t know where to start, and especially when a new CRO has been designated to “implement ERM,” there is a feeling of urgency to create a product; the risk identification, evaluation, and ranking process is the most prevalent in the literature and the easiest to turn into a *deliverable* (e.g. risk register, heatmap, “top ten risks”). While ERM is producing positive quantifiable results for IHEs (e.g. decrease in auditable findings, improvement on pre-determined risk metric scales, increase in work orders to improve facilities), administrators responsible for ERM implementation describe value mostly in qualitative terms, highlighting the process of

ERM (e.g. cross-silo dialogue, discussion of previously undocumented risks, increased risk awareness in the culture). Al Turgeon of UVM says that ERM is a “process that doesn’t happen overnight.” He says that it is slowly “seeping” into the university culture and practices. UW describes their ERM program as a “journey of discovery.”

**12. IHEs are conflicted about whether or not to highlight and emphasize ERM in order to easily measure the impact and demonstrate accountability or to integrate and embed it into existing structures to improve decision-making and governance.**

Depending on the stated goals of ERM at the outset, IHEs take different approaches to the organizational structure to implement ERM. Many early adopters created new ERM committees to jumpstart the process. ERM programs that have launched recently appear to be considering ways to integrate and embed ERM rather than creating new committees or administrative roles. Those that have integrated ERM with existing governance and committee structures describe the tension between trying to demonstrate the value of ERM when the ERM functions aren’t isolated. Tim Wiseman of ECU states that “it is difficult to balance between educating various types of campus leadership groups about the importance and practice of ERM while simultaneously providing the practical risk management applications to business units.” Paula Smith of Grinnell notes that “the more tightly integrated ERM is with the governance structure, the harder it is to isolate the ERM positives.”

**13. Regardless of institutional type and size, IHEs have common ERM adoption, implementation, and integration elements and challenges.** When I started the study, my Conceptual Framework indicated that I was focused on how various types of institutions implement ERM, believing that there would be wide variability in the

adoption decision and implementation process based on institutional type (e.g. size, public/private, research focus, and other factors). My findings did not bear this out. There are some things that may differ based on institutional type, particularly size and whether or not institutions are public or private, but the institutions in this study are not yet far enough along in their implementation to be able to make that claim. Janice Abraham notes that larger, research IHEs are further along in their ERM implementation than other IHEs (Gurevitz, 2009). Resources may be one reason. Some larger institutions have elected to dedicate resources to hiring a CRO and dedicating other staff and financial resources to the ERM endeavor, however, there are still many larger institutions with an ERM program that do not have a designated CRO; generally, the “risk manager” has the ERM responsibility in addition to their other responsibilities. And smaller, liberal arts colleges are starting to adopt ERM. Grinnell accomplished their first year of ERM by providing course release for a faculty member to investigate ERM adoption and implementation and spearhead the process. All institutions, regardless of enrollment and Carnegie classification, described common elements of adoption, implementation, and integration unique to the higher education environment itself, not to institutional type and size.

14. **The unique aspects of IHEs as mission-driven organizations with goal ambiguity, shared governance, and decentralized decision-making affect ERM adoption, implementation, and integration.** While not the direct focus of this study, the concept described in the literature of how higher education organizations differ from corporate entities in terms of management and governance was supported by the study. Four specific unique aspects of higher education culture relate to ERM implementation - IHEs

are mission-driven organizations with goal ambiguity, shared governance, and decentralized decision-making.

***Mission-driven organization.*** What all non-profit IHEs have in common is that they are driven by their mission and not by other more easily quantifiable variables. This alone makes their approach to ERM unique compared to the corporate sector. The literature on valuation, increased profits, and decreased losses based on ERM is not as relevant, particularly as a selling point for ERM adoption or as a way to measure value or maturity once implemented. The quantification of risk (and many other things, such as student learning) may not be a comfortable or even desirable indicator for higher education.

***Goal ambiguity.*** Most organizations are goal-oriented, and therefore, they can build decision-making structures to meet their objectives. “By contrast, colleges and universities have vague ambiguous goals and they must build decision processes to grapple with a higher degree of uncertainty and conflict” (Baldrige, et al., 1977). This lack of clarity is based, in part, on the three-fold mission of academic organizations of teaching, research, and service (Birnbaum, 1988). Because of these organizational differences, the “processes, structures, and systems for accountability commonly used in business firms are not always sensible for [colleges and universities]” (Birnbaum, p. 27).

***Shared governance.*** While the ERM literature acknowledges that inclusion of faculty in the ERM process is important, there is no evidence that ERM has involvement with faculty governance structures within the shared governance system. This is demonstrated, in part, by the fact that administrators report that ERM is essential to achieving their objectives, but the lowest item both on the quantitative survey and the case study sample is that faculty believe ERM is essential. When adopting ERM, IHEs tend to form committees with faculty

representation and consult with deans and academic department chairs, but the concept of ERM itself is not integrated into existing faculty governance structures; therefore, it remains a foreign concept that is imposed by “the administration.”

***Decentralized decision-making.*** Decision-making in IHEs is often decentralized, in part because the IHE is comprised of a *professional bureaucracy* of faculty often more loyal to their discipline than the institution (Mintzberg, 1979). “Professional” employees demand autonomy in their work, have divided loyalties, have tension between professional values in their field and bureaucratic expectations of the institution, and demand peer evaluation of their work, all of which “undercuts the traditional norms of bureaucracy, rejecting its hierarchy” (Baldrige, et al.). In formal interviews, conversations with colleagues, reviews of the higher education literature, and attendance at conferences where ERM was a topic, the concept of higher education institutions being decentralized was repeated. People described the various ways in which the right hand didn’t know what the left hand was doing. All of the items related to centralization and standardization of processes were in the lower levels of risk maturity (e.g. risk management embedded in organization practices, risk management as part of organizational processes, risk identification and reporting taking place in some areas of the institution, but not comprehensively across the organization).

### **Summary**

This study explored the decision-making and administration processes of IHEs that have adopted ERM programs. The earliest adopter began in 2002, with 29 institutions reporting in on their ERM adoption, implementation, and integration. Findings from the qualitative and quantitative data reveal that, measured against traditional maturity scales, ERM in higher education in the U.S. is still in the early stages of ERM maturity. ERM is receiving new attention

by boards and presidents, and more IHES are electing to adopt ERM programs, whether in response to a sentinel event or as a governance best practice. The role of the “CRO” selected to facilitate the ERM implementation is changing as IHEs move to increase their ERM maturity by embedding the principles and practices into their governance and decision-making structures. Administrators involved in the process describe ERM implementation as time-consuming and complex, but they also describe the benefits to the IHE of ERM adoption, chief amongst them that ERM opens up cross-silo dialogue and includes the explicit discussion of risk into strategic conversations, something difficult to accomplish in a decentralized university environment. Although most IHEs have an ERM committee that includes faculty, by and large faculty remain on the outskirts of the ERM adoption and implementation processes and currently do not see the value in ERM as essential for achieving the IHEs’ objectives.

## CHAPTER V

### CONCEPTUAL MODEL OF ERM ADOPTION, IMPLEMENTATION, AND INTEGRATION AT U.S. COLLEGES AND UNIVERSITIES

This chapter describes the process I used to reach theoretical integration. It then provides an explication of the Conceptual Model of ERM Adoption, Implementation, and Integration at U.S. Colleges and Universities that I developed based on the findings of the grounded theory mixed methods study.

#### **Theoretical Integration**

“Grounded theories are fact stories” (Birks & Mills, 2011, p. 118). Strauss and Corbin (1990) set forth a set of procedures, which they termed axial coding, whereby the researcher puts the data back together in new ways after open coding, making connections between categories using a “paradigm involving conditions, context, action/interactional strategies, and consequences” (p. 96). Glaser (1978) developed 18 “coding families” to guide the researcher at this stage, and insisted that the codes used should be “driven by conceptual interests that have emerged from the data and not ‘forced’ into any particular scheme, such as the paradigm model” (Kendall, 1999, p. 748).

More recently, grounded theorists have posited that the coding process to reach theoretical integration is actually quite simple; “the goal is to produce categories that perform two functions: they have to express what the theory is about and they have to express how they relate to each other” (Gibson & Hartman, 2014, p. 98). External theories should not be applied until after the researcher has developed their own theory, based on the data (Birks & Mills, 2011; Glaser & Strauss, 1967), but there is a role for the “use of theoretical frameworks derived from your own discipline where these prove relevant in explaining your grounded theory and discussing the contribution it makes to knowledge in your professional area” (Birks & Mills, p.

125). Theoretical integration is established in grounded theory by three factors: an identified core category, theoretical saturation of major categories, and an accumulated bank of analytical memos (Birks & Mills). It is also important that the theory be “digestible to the reader and reflective of the analysis” (Birks & Mills, p. 119).

Using the constant comparative method, I continued to return to the accumulated data and memos throughout the data collection and analysis phases. As I worked through the codes generated during initial and focused coding, and as I continued to engage in conversation with ERM administrators, I reflected on and asked questions about what I was seeing in the data. I posed some of those questions to ERM administrators in order to gain their perspective. As I was completing the data analysis and description of findings as outlined in Chapter 4, I was also diagramming the relationships of the concepts to one another. I continued to ask questions of the data and realign the categories until the core category - ERM as taking place in progressive non-linear phases with levels - emerged. I revisited all of my data again, as well as reviewed the literature to determine its applicability to my theory. I then organized the core category and major categories into the Conceptual Model of ERM Adoption, Implementation, and Integration at U.S. Colleges and Universities (see Figure 7).

### **Conceptual Model**

The core category for the Conceptual Model is that ERM implementation at U.S. colleges and universities takes place in four non-linear progressive maturity levels (forming, developing, established, and integrated) that repeat in phases, with the percentage of time spent on each level shifting with each subsequent phase. Major categories of the model are (1) ERM adoption, implementation, and integration in higher education is impacted and informed by four unique aspects of higher education culture: mission driven organization; goal ambiguity, shared



governance; and decentralized decision-making); (2) the ERM adoption decision occurs either from a sentinel event or as a proactive decision by senior leadership (or both) and triggers the level one (forming) in phase 1; (3) foundational elements of ERM that take place throughout all phases and levels include risk ownership; risk management framework and tools; and the risk management schedule. All elements together impact the ERM Model at the IHE, which continues to evolve throughout each phase. Aspects of the model are described in more detail below.

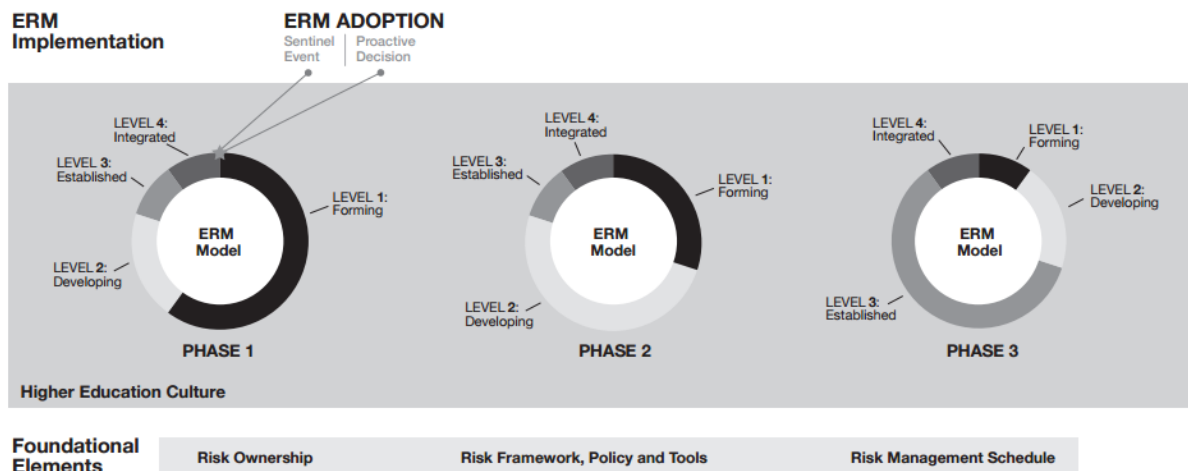


Figure 7. Conceptual model of ERM, adoption, implementation, and integration at U.S. colleges and universities.

## ERM Implementation - Phases with Levels

In higher education, ERM implementation takes place in four non-linear progressive maturity levels (forming, developing, established, and integrated) that repeat in phases, rather than in the linear stage models most widely articulated in the ERM literature. I define *level* as an item in a series, increasing in difficulty or degree of accomplishment. I define *phase* (from the root, *to show*) as a distinct period in a process of change. As opposed to thinking about ERM in terms of completing all of the items in one level before moving on to the next, action items

associated with various levels of maturity take place within each phase. Some elements take place throughout the phases, as opposed to at one fixed point which is then checked off the “to do” list. For example, senior leadership and support, or “tone at the top,” is often cited in the literature as a preliminary action item necessary for launching ERM. While the idea for ERM often originates with the president or board, that does not necessarily mean that they have a complete understanding of the ERM process or goals or can envision how that integrates with other institutional decision-making and governance. If senior leadership is not present at the beginning of Phase 1 (or if there is a presidential transition), elements associated with other levels can still progress and mature; eventually, for the overall ERM program to mature, senior level awareness, support, and integration of decision-making to include explicit discussion of risk will need to be present or the ERM program will plateau. The specific items associated with each level are beyond the scope of this study. While administrators describe their ERM implementation in terms of progressive *cycles* or *phases*, tend to evaluate their maturity against the linear maturity models in the literature, thus feeling as if they are not progressing as rapidly as they should. Based on the data, there are some generalizations that can be described about the elements of the phases.

Phase 1 can be conceived of as foundational – setting the stage, developing organizational capacity, putting particular elements of the ERM structure and framework in place, and mapping out the direction for ERM in relationship to existing business and governance practices. Forming in Phase 1 takes up the majority of the time, with the first items on the action list often arising out of the adoption decision. Regardless of whether or not the decision to adopt ERM arose from a sentinel event or at the direction of the president or board, one of the first actions often taken is to designate someone to lead the ERM effort, either by

adding this responsibility to an administrator's area of current responsibility or by bringing in someone from outside the IHE to lead the ERM effort. Other Forming level items in Phase 1 may include a review of existing organizational plans, such as the strategic plan, facilities master plan, safety and emergency preparedness plans, and other risk management plans, to establish a context for the ERM initiative; a review of the ERM literature and analysis of existing models and frameworks; and delineation of the ERM structure for the IHE.

In Phase 2, IHEs take what they have learned from Phase 1 (e.g. decisions about frameworks, ERM definition, guiding principles, ERM structure, risk identification, evaluation, prioritization, and response cycle), move more efficiently through additional remaining Forming level elements, concentrating more of their time on Developing elements. In this phase, the ERM structure is often re-evaluated; perhaps while it required a stand-alone committee in the Phase 1 Forming level to initiate and develop preliminary infrastructure, in Phase 2, IHEs might begin to integrate the ERM process and concepts into existing governance structures. Elements of the Established level in Phase 2 may include linking ERM policy to business practices, assigning risk owners to create mitigation plans, and reviewing and assessing Phase 1. Work at the Integrated level may continue by developing or deepening the senior leadership and board awareness of risk and the inclusion of risk management elements in senior level decision-making.

Phase 3 is where administrators describe the ERM program starting to gain traction within the IHE, with a forward movement in overall maturity. If elements of Forming and Developing in Phase 1 and Phase 2 have started to become embedded in institution-wide governance and business practices, the higher levels of maturity can consume a majority of the ERM program's time and resources in Phase 3. As part of the Established level, there might be

reporting to a variety of constituents in different formats on institution-wide risks and response plans. At the Integrated level, the discussion of risk becomes embedded in the discussions of the senior leadership and board and ERM becomes integrated into the governance and risk practices of the IHE.

Clearly, ERM implementation may take longer than three years to implement and phases may actually spread across academic years. Since no ERM model at IHEs in higher education has reported elements of the highest level (integration), it is difficult to know how long ERM implementation will take in higher education as the sector matures and there are more models available to draw from in earlier phases.

### **Higher Education Context**

Elements of higher education culture were discussed in Chapter 2. Support for four of them as relevant to ERM adoption, implementation, and integration were confirmed through the study: mission-driven organization; goal ambiguity; shared governance structure; and decentralized decision-making and discussed in items 13 and 14 in Chapter 4.

### **ERM Adoption**

The decision to adopt ERM in the higher education sector takes place either in response to a sentinel event (e.g. a compliance failure, public governance scandal, financial or enrollment crisis) or at the direction of the president, board, or other senior leader. These may actually be interwoven, as a compliance or financial event may be the primary trigger, whereby a president or the board then mandates the ERM adoption. Response to the external event may speed up the adoption decision and perhaps the early action items in the Forming level of implementation (e.g. designating a person or committee to be in charge of ERM, jump-starting the community's awareness of the importance of risk identification and response), but it seems to have little to do

with the pace at which implementation occurs, with most IHEs firmly planted in the middle of the Developing maturity level, regardless of the number of years since ERM adoption.

## Foundational Elements of Risk Management

Undergirding the concept of ERM implementation taking place in four non-linear progressive maturity levels (forming, developing, established, and integrated) that repeat in phases, are the foundational elements that people traditionally associate with ERM, such as risk ownership, risk management frameworks and tools, and the schedule for carrying out the complex facets of the risk management cycle. Action items associated with these foundational elements are outlined in Table 7 and discussed below.

Table 7

### *Foundational Elements of Risk Management at U.S. Colleges and Universities*

Foundational Elements	Action Items
Risk Ownership	Board of Trustees oversight President and senior leadership role Location of “ERM” in organizational structure Designated “CRO” Risk committee – new or embedded Risk owners for identified risks
Risk management framework and tools	Risk management framework (existing or homegrown) Risk management philosophy and perspective – including relationship to existing planning processes and definition of terms Articulation of senior leadership oversight and risk ownership across the institution Risk identification process and tools Risk analysis and evaluation process and tools Risk mitigation process and tools Monitoring and review of ERM program (process and plan)
Risk management schedule	Risk identification schedule Risk analysis and evaluation schedule Risk mitigation reporting schedule Risk reporting to various constituents (board, senior leadership, campus community)

**Risk ownership.** Institutions of higher education have a variety of ways in which they establish risk ownership. While some have appointed a CRO (and they use that as part of the administrator's title), many IHEs have shied away from the designation, perhaps in part due to the shared governance structure of higher education and the perception that term is too *corporate*. Risk ownership is established in four ways at IHEs: the "chief risk officer," ERM committee, president and board leadership, and risk owners for identified risks.

***"Chief risk officer" or leader.*** Most IHEs designate a CRO, whether or not that title is used, for the purposes of ERM coordination and implementation. In some instances, administrators with existing responsibilities (such as a CFO, risk manager, or faculty member) are designated by the IHE to lead and coordinate ERM initiatives, and they may not formally hold the CRO title.

***Risk committee(s).*** IHEs generally work with a committee structure, so forming an ERM committee is a natural first step. IHEs often create the committee structure in levels, with a committee at the senior administrative and/or board level to review and discuss the identified risks and their response plans, and other committees at the more operational level to dive more deeply into the details of the risk mitigation and response plans. IHEs are also finding ways to integrate and incorporate the ERM process into the existing governance structure, including the faculty governance structure, rather than creating additional committee layers for ERM.

***Board and senior leadership.*** The ERM literature is clear that the "tone at the top" is essential for effective ERM and higher education is no different. Most maturity models place this as a necessary first step. If the impetus for ERM starts with the board or president, then that level of risk awareness and ownership already exists; if not, then strategies to gain that support and leadership need to be built into later levels and phases of implementation.

***Risk owners for identified risks.*** The concept of risk ownership for the identified and prioritized risks is viewed as essential by ERM administrators. Risk owners work with other campus constituents to develop, implement, and report on risk mitigation plans. The concept of “risk ownership” appears to be a sticking point in the ERM process in higher education. While in the corporate sector, it makes organizational sense to assign responsibility for the development of the mitigation plan and then hold that person responsible, in higher education, *responsibility* is more diffuse, based on the decentralized decision-making in the shared governance structure. Higher education administrators, including presidents and vice presidents, are keenly aware that they cannot dictate to faculty and staff in order to accomplish goals. The siloed organizational structure makes it difficult, even for vice presidents, to see the inter-relationship of risks. Designating one person to shepherd the process and be responsible for convening the other constituents across campus to dialogue about the mitigation and response plan was cited as essential to moving toward a more mature ERM.

**Risk management framework, policy and tools.** As a part of ERM implementation, CROs or ERM committees make decisions about the framework and approach they will use to implement their ERM program. Whether or not they select an existing framework, such as COSO or ISO 31000, they set forth their purpose, definitions, goals, and structure. Most IHEs don’t codify this in a formal written policy, but many create documents such as Guiding Principles, whitepapers, or explanatory material on a web site, that articulate the nature and purpose of the ERM program, along with the associated responsibilities. IHEs also select or create tools for use in the risk identification, assessment, response, and reporting processes. Initially, most of these tools were taken from the corporate sector, but as more IHEs adopt ERM, higher education specific templates are more readily available.

**Risk management schedule.** The risk management schedule or calendar was difficult for early adopters to create because they didn't have an upfront understanding of what all the items were that would need to be done. For many, the ERM structure and responsibilities were not yet in place, making it difficult for them to schedule. Paula Smith of Grinnell refers to the schedule as a "risk calendar," noting that it should be "aligned with academic and administrative rhythms, which regularly prompts and holds accountable those on campus responsible for steps in the [risk management] cycle" (Smith, 2015, 175). Risk schedules or calendars include the timing of ERM training and workshops; the risk identification, assessment, and prioritization process; deadlines for risk mitigation plan reports (in person and in writing); updates to senior leadership, the board of trustees, and the community at large; and the production of year-end reports.

### **Summary**

The Conceptual Model of ERM Adoption, Implementation, and Integration at U.S. College and Universities describes the current ERM context in higher education. ERM implementation is a process that takes place in four non-linear progressive maturity levels (forming, developing, established, and integrated) that repeat in phases. That process takes place within the unique culture of higher education, where mission-driven institutions with ambiguous goals operate with shared governance and decentralized decision-making. Undergirding that process are the foundational elements of ERM: risk ownership (by a CRO, risk committees, senior leaders, and risk owners for identified risks); the risk framework, policy, and tools; and the risk management schedule.



## CHAPTER VI

### DISCUSSION

This chapter provides a summary of the constructivist grounded theory mixed methods study, the limitations of the study, recommendations for practitioners, recommendations for further research, my personal reflections on the research, and summary conclusions.

#### **Summary of the Study**

This constructivist grounded theory mixed methods study explored how administrators with risk management responsibility at institutions of higher education in the U.S. describe ERM adoption, implementation, and integration. While adoption of ERM in higher education is increasingly widespread, empirical research is limited. Because higher education has unique characteristics that differentiate it from other corporate entities and not-for-profit organizations, the adoption and implementation decisions and resulting ERM frameworks have aspects that make them unique to the higher education environment.

This study focused on the factors leading to ERM adoption, steps and decisions in the implementation process, and the degree of integration of ERM with existing business and governance practices at colleges and universities in the U.S. with an eye toward developing a theory of ERM implementation in the higher education sector. The study was conducted using an exploratory design comprised of four interactive phases, using the constant comparative method for literature review, data collection, and analysis. The quantitative portion of the study was descriptive, using a cross-sectional survey to examine the phenomena of ERM adoption, implementation, and integration in higher education at a specific point in time. The qualitative phase of the study adopted a case study approach, using semi-structured interviews and

document analysis at Grinnell College, East Carolina University, Emory University-Emory Healthcare, University of Washington, and University of Vermont.

Measured against traditional maturity scales, ERM at IHEs in the U.S. is still in the early stages of maturity. ERM as a concept and process is receiving renewed attention in higher education after a flurry of interest in the early 2000s and then a hiatus in adoption and implementation. While most ERM maturity models describe a linear process in four or five progressive stages, my Conceptual Model of ERM Adoption, Implementation, and Integration at U.S. Colleges and Universities posits that ERM implementation at IHEs takes place in ever-deepening phases, with numerous tasks associated with the four maturity levels of forming, developing, established, and integrated. At each level of each phase, the CRO guides the IHE through specific activities, such as defining risk and risk management, selecting and implementing risk identification, assessment and mitigation strategies, the creation and adoption of tools (e.g. risk registers, heatmaps, “top ten” risk templates), coordination of risk management processes with existing business and shared governance structures, and communication of and reporting on risk response.

Consistent with the corporate sector, the support and leadership of the president or chancellor and board are crucial to ERM success, but that leadership and support doesn’t always have to occur in the forming level of the first phase of ERM implementation; other administrators can make progress on elements of ERM and work toward gaining senior leadership buy-in as part of their implementation process. Ultimately, the ERM program stalls out at the developing level without presidential and board leadership. Changes in senior administrative leadership can also stall ERM implementation if the IHE hasn’t move to an

established or integrated maturity level, embedding ERM into existing business practices and strategic planning.

Once adopted, some IHEs appoint or designate a CRO, in most instances a seasoned administrator with deep experience in the higher education environment. While many of these CROs report in the business and finance unit of the IHE, more CROs are emerging with other areas of administrative expertise in other functional areas of the institution and hold senior level appointments. In order to lead the ERM effort, the role of the risk manager is changing, being viewed more as a process leader than a compliance administrator. Still, most of them are “solo shops,” responsible for the IHEs ERM program, but requiring them to coordinate with a variety of campus constituents to achieve their objectives, including faculty and staff. For effective ERM implementation, the relationship and leadership skills of the CRO appears to be as important as the selection of ERM framework, tools, and strategies.

While most IHEs do not have formal written ERM policies, they are adapting and developing tools and templates that fit the higher education sector for use in risk identification, prioritization, response, and reporting. There is a tension for ERM administrators in wanting to articulate the “value” of ERM through relevant and appropriate quantitative metrics and their awareness that the highest value may be the cross-silo dialogue about previously unidentified risks that may keep the IHE from achieving its objectives and mission.

None of the IHEs in either sample report having reached an integrated maturity level, regardless the number of years since their ERM adoption. However, IHEs are engaging in some of the activities associated with integration, including the fact that administrators and some senior leaders and boards regard ERM as critical to achieving the IHEs objectives. While IHEs report that they tailoring the ERM process at their IHE to fit the business practices of their

institution, they also report that ERM is not yet embedded into the IHEs other planning processes, such as strategic planning, nor is the discussion of risk an explicit part of institutional decision-making.

IHEs adopting ERM now and in the future may progress more rapidly through the maturity levels, as there are more higher education specific models to draw from. The early adopters, such as University of Washington, spent several years conducting their own literature review and seeking IHE specific ERM models. Others used consultants to jumpstart their ERM program and provide guidance on establishing the ERM process (risk identification, assessment, prioritization, response, and reporting) in some units of the organization. At this point in time, there are now more institutions with ERM to provide models and institutions can learn from their experience and the expertise of their ERM administrators (see Appendix B).

Administrators responsible for implementing ERM describe the process as time-consuming and complex, but can also articulate the benefits. Chief amongst these benefits is cross-silo awareness of and dialogue about risks and the proactive response to them, something difficult to achieve in a decentralized higher education environment. This has not necessarily translated into higher ERM maturity for IHEs, particularly in the areas of embedding the ERM process into organizational processes, routinely incorporating explicit discussion of risk into decision-making, or shifting the culture so that all within it view ERM as essential for achieving the IHEs objectives.

Current ERM maturity at IHEs may have to do with the relative newness of adoption in the sector as well as the fact that the corporate models introduced to early adopters were not a good fit for the decentralized, shared governance higher education culture. As more IHEs move to adopt ERM, or to revitalize their stalled programs, there are more examples of ERM in higher

education to draw from, thus building an expertise of practitioners that can share insights and strategies about navigating the higher education culture for ERM, terminology for discussing ERM in the higher education context, and tools and techniques for conducting the risk management process, and designing the ERM structure.

### **Limitations of the Study**

This study did not examine specific variables, factors, or determinants of ERM programs in a manner that can be generalizable to a larger population. This study did not examine leadership styles of administrators with ERM responsibility or elements of higher education or institution-specific culture. This study did not return to ERM practitioners to have them provide feedback on the Conceptual Model, which would have allowed for more description of the individual elements associated with the four maturity levels in each phase.

### **Recommendations for Practitioners**

Findings from the study reveal that there are some unique aspects to implementing ERM in the higher education environment. Practitioners who have been administering ERM for a while have paved the way for new adopters and for those IHEs whose programs may have stalled to reinvigorate their implementation efforts. IHEs can take key elements of ERM from the corporate sector and adapt them to the higher education environment. They can also learn from colleges and universities abroad who are more advanced in ERM maturity, due to federally mandated risk management requirements. IHEs in the U.S. also have the opportunity to develop a new model for ERM in higher education, one that isn't bound up with the bureaucracy of "new managerialism," but that integrates seamlessly with existing organizational structures and improves strategic decision-making in ways that ultimately lead to effective governance, accomplishing accountability goals with mission at the core.

The list below reflects the findings from the study and what IHEs should consider as they establish or reinvigorate ERM:

- ***Start with mission and strategic objectives.*** Many IHEs jump right into the traditional risk management process or cycle, but find later on that it is difficult to tie those efforts to the overall mission and strategic priorities of the institution. Establishing on the front end that ERM is good governance, designed to help an organization consider risk and opportunity as part of achieving strategic objectives will help the IHE determine what ERM is – and is not.

- ***Include faculty from the beginning.*** Many risk committees have faculty “involvement,” but most IHEs do not integrate the faculty governance structure with the ERM initiative. Having this established at the front end means that there is shared understanding of the objectives and language around ERM and that emerging framework and paradigm will fit with higher education and institutional culture.

- ***Appoint a CRO.*** Even if that is not the title used and even if the ERM responsibilities are in addition to existing administrative responsibilities. One designated person needs to shepherd the process and tie the ERM implementation elements to structure and timeline. The CRO needs the skill set to accomplish objectives through relationship building as well as understand compliance and risk issues at an operational level.

- ***Weave ERM into existing structures, governance, and business practices.*** While it may be necessary to establish a separate ERM committee in the Forming level of Phase 1, to the extent possible, weave the ERM concepts and processes into existing structures, such as the Strategic Planning Committee, president’s cabinet, existing board committees, faculty senate, student government, and business and finance committees. A mapping exercise that evaluates

the existing committee structure and embeds ERM within that will ensure that the IHE moves to Established and Integrated maturity levels as the ERM program moves into Phase 2 and Phase 3.

- ***Don't try to copy corporate ERM culture.*** While there are many good models and insights to be gained from the corporate sector, the “bottom line” at an IHE is different enough that the advice may not be transferrable. While risk management process and cycle (risk identification, assessment, prioritization, response, and reporting) and the associated tools may be fairly standardized and applicable across sectors, the unique elements of the higher education sector mean that some adaptation will need to take place in terms of senior leadership role and involvement, role of the CRO, committee structures, reporting mechanisms, and risk appetite statements.

- ***Don't reinvent the wheel.*** Borrow tools and models from the ever-increasing number of IHEs who have been implementing ERM for over a decade. More higher education professional organizations are adding conference sessions to their agenda, journal articles discuss ERM in higher education, and institution ERM web sites are starting to be populated with examples of tools, reports, and ERM process. Some of this still lies below the surface – find colleagues at institution similar phase of implementation and learn from them.

- ***Strike a balance between process and product.*** Because the literature concentrates so heavily on the risk management cycle, many CROs describe feeling frustrated that they haven't made more “progress” with their ERM program, by which they often mean developing lists of risk with mitigation plans or reporting on risk response in a comprehensive institution-wide manner. However, respondents in the study indicate that some of the primary values of ERM are process oriented – identifying gaps in risk management through cross silo conversations; the inclusion of risk in senior level discussion and decision-making; increased risk

awareness at all levels of the organization. Viewing the ERM implementation process in phases with levels helps CROs determine which product and which process elements to focus on at which phase, thus allowing for progress to be measured.

### **Recommendations for Further Study**

The results of the quantitative survey provide a number of areas for follow up and further study. The lack of written risk management policies (84%) and limited focus on risk appetite (20%), risk tolerance (17%), risk criteria (11%), risk target (11%), and risk limit (8%) could be an indication that IHEs have chosen to focus more on the process of ERM and building a culture for discussion of strategic risk and opportunities, rather than focusing on the traditional risk management elements and policy development. Further questions need to be asked about why IHEs don't have these elements at the present time. Are they earlier in their risk maturity and just haven't developed them yet or have they made an intentional choice to forego them? It would be valuable to determine if IHEs are just lagging behind empirically grounded ERM best practices or if they are successfully adapting the corporate-conceived ERM model to the higher education environment.

Another area for further research would be a quantitative comparison of more mature IHEs (five or more years after adoption) to the corporate sector in terms of relative importance of various aspects of ERM, such as appointment of a CRO, setting of risk tolerance and appetite, or ERM value determinants after several years of implementation.

The role and responsibilities of the CRO at IHEs is another area for further study. Qualitative interviews with ERM administrators tasked with implementation and integration who have been responsible for ERM at their IHE for over five years would help us better understand their background and experience and what particular skills and strengths they bring to the table



as well as describe aspects of their leadership style and approach. This appears to be an area of study that could prove very fruitful, as the IHEs that are now moving into their third or fourth cycle with ERM appear to be able to move to that level of risk maturity not due to the type of framework they adopted, the culture at the institution, or the particular tools and processes they use for risk identification, prioritization, and mitigation planning and review, but based on the ability of the “risk manager” to clearly articulate the ERM concept and value and engage the campus in the complex implementation and integration process. These administrators have some unique combinations of strategic thinking and relationship building.

A study of faculty perspectives on ERM would add to the understanding of ERM in higher education. Faculty remain on the outskirts of ERM at most IHEs, but their perspective and influence as an integral part of institutional governance is central to college and university decision-making.

Further data collection using regarding the Conceptual Model will be important, collecting more data “so that the generated theory becomes more comprehensive” (Gibson & Harman, 2014, p. 38). Elements for further data collection include interviews with presidents and board members about their adoption considerations, focus group discussions with ERM administrators about the specific risk identification, evaluation, and prioritization techniques they use, and

### **Personal Reflections**

I started this study the moment I read Whitfield’s (2003) dissertation on ERM in higher education. The concept of thinking about risk across organizational silos and tied to strategic objectives was compelling to me and I had not yet seen it discussed in the literature. After a deep dive into areas where I had no expertise (SEC regulations, compliance failures, insurance,

bonds, ratings agency requirements, risk mitigation plans, and quantitative measures to calculate risk), I felt that I was in over my head and outside my area of expertise. However, as I started to talk with colleagues who were risk managers, specifically those that were establishing or administering ERM programs at IHEs, I found that they were almost as confused as I was about ERM. While they had expertise in specific risk management areas, their declarations about how the corporate model was not fitting the higher education environment intrigued me.

At the beginning of the study, I was focused on governance and how that intersected with ERM. My original design involved talking to senior administrators and board members about ERM, but I realized that AGB and UE had recently conducted a survey of boards and presidents. As part of my Qualitative Seminar, I designed a field study where I talked with three ERM administrators. That is where the lightbulb really went off for me and I decided to focus my efforts on listening to the experience of the ERM administrators in the trenches and then try to see how that might result in some conceptual framework that described ERM in higher education at this point in time.

The study became grounded for me when I continued my conversations with ERM administrators and began to really look at the survey results in relationship to the qualitative interviews. The themes began to emerge and the “aha” moment for me was when I began to understand that the progressive linear maturity models did not fit what administrators were describing to me. Once I had that concept in mind, I returned to the data and continued to merge what I was hearing from the respondents to what the literature was saying. I feel at this point, that I have a whole new study in front of me – taking the Conceptual Model and asking ERM administrators to describe how it fits for them and ask for their assistance in completing the elements that might occur in the various levels within each phase.

## **Summary Conclusion**

The higher education landscape is changing and IHEs are being held to accountability standards unheard of even half a century ago. In response, many IHEs struggle to figure out the best ways to stay ahead of their competition, while simultaneously providing quality student learning environments and supporting the teaching and scholarship of the faculty. Add to this that U.S. higher education is a complex web of diverse institutions with wide variability in terms of size, location, population served, funding sources, and number of years since being founded. Regardless of these various factors, IHEs all share one common denominator: they are mission driven, whatever that mission may be, and they exist to serve the students, faculty, and staff in their organization. This makes them unique and distinct from their corporate counterparts.

In order to meet the evolving expectations of students, parents, accreditors, legislators, regulators, and the public for higher education accountability, not just for student learning, but for financial responsibility, providing access to a diverse student population, and for ethical decision-making across all aspects of its organizational structure, IHEs are exploring and adopting ERM frameworks that link their evaluation of risk to their stated strategic objectives. The culture of higher education is unique, making the introduction of the more corporate aspects of ERM into the decentralized, shared governance structure of IHEs problematic. As ERM matures in higher education, IHE decision-makers are finding ways to adopt the basic tenants of ERM to the higher education culture, with an eye toward embedding risk management with business practices, institutional governance, and strategic planning, and including the explicit discussion of risk in institutional decision-making, in order to achieve institutional objectives and fulfill their missions. IHEs in the U.S. have the opportunity to develop a new model for ERM in higher education, one that isn't bound up with the bureaucracy of "new managerialism," but that

integrates seamlessly with existing organizational structures and improves strategic decision-making in ways that ultimately lead to effective governance, accomplishing accountability goals with mission at the core.

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## Appendix A

### Colleges and Universities Identified as Having ERM Programs Prior to Data Collection

Auburn University  
Clayton State University  
East Carolina University  
Emory University  
Georgetown University  
Iowa State University  
Lehigh University  
Maricopa County Community College District  
Northwestern University  
Pennsylvania State University  
Purdue University  
Tarleton State University  
Texas A&M University  
The Ohio State University  
Tufts University  
University of Alaska  
University of California  
University of Denver  
University of Maryland, Baltimore  
University of North Carolina at Greensboro  
University of Notre Dame  
University of Vermont  
University of Washington  
University of Wisconsin System  
Yale University

## Appendix B

### U.S. Colleges and Universities with ERM Programs Identified or Confirmed Through the Study

Antioch University  
Auburn University  
Ball State University  
Bucknell University  
Carleton College  
Clayton State University  
Clemson University  
Cornell University  
Cuyohoga Community College  
Duke University  
East Carolina University  
Emory University, Emory Healthcare  
Faulkner University  
Georgetown University  
Grinnell College  
Harvard University  
Indiana University  
Iowa State University  
Kalamazoo College  
Lehigh University  
Louisiana State University  
Maricopa County Community College District (MCCCD)  
Massachusetts Institute of Technology (MIT)  
Northeast Community College  
Northwestern University  
Otterbein University  
Park University  
Pennsylvania State University  
Purdue University  
Saint Louis University?  
Southern Illinois University  
Stanford University  
SUNY-Cortland  
Tarleton State University  
Texas A&M University  
Texas Southern University  
Tufts University  
University of Alabama, Birmingham  
University of Alaska  
University of Arizona

University of California  
University of Cincinnati  
University of Denver  
University of Georgia System  
University of Illinois  
University of Kentucky  
University of Maryland  
University of Minnesota  
University of North Carolina at Greensboro  
University of Notre Dame  
University of Oregon  
University of South Florida  
University of Vermont  
University of Washington  
University of Wisconsin System  
Virginia Commonwealth University  
Weber State University  
Western Michigan University  
Westmont College  
Yale University

## Appendix C

### Semi-Structured Interview Protocol

**Thank you for agreeing to participate in this study. I would like to record the interview so the study can be as accurate as possible. You may request that the recorder be turned off at any point of the interview.**

1. How does your institution define Enterprise Risk Management (ERM)? Are there any other terms that you use to refer to the ERM framework/process?
2. Describe the decision-making process to adopt an ERM model.
3. Describe the steps your IHE took to implement ERM.
4. How is ERM organized at your IHE? Who are the key people? What are their roles and responsibilities?
5. How have you integrated ERM into your overall governance, decision-making and strategic planning efforts?
6. What is the relationship between ERM and your IHE's mission, goals and other processes?
7. How do you know if ERM has reduced, mitigated, or controlled risk, created opportunity, enhanced financial viability and/or resulted in other positive factors for your IHE?
8. What are your greatest challenges related to ERM?
9. Is there anything else about your ERM model or process that you think it is important for me to know?

Appendix D  
HSRIB Approval Not Needed Letter

Date: January 30, 2013  
To: Patricia Reeves, Principal Investigator  
Anne Lundquist, Student Investigator  
From: Amy Naugle, Ph.D., Chair  
Re: Approval not needed for HSIRB Project Number 13-01-38

This letter will serve as confirmation that your project “Enterprise Risk Management (ERM) at Colleges and Universities: Decision-Making and Administration Processes Regarding the Adoption, Implementation, and Integration of ERM” has been reviewed by the Human Subjects Institutional Review Board (HSIRB). Based on that review, the HSIRB has determined that approval is not required for you to conduct this project because you are analyzing a process and not collecting personal identifiable (private) information about individuals.

Thank you for your concerns about protecting the rights and welfare of human subjects.

A copy of your protocol and a copy of this letter will be maintained in the HSIRB files.

## Appendix E

### Institutions with ERM for Discussion and Document Review

Auburn University  
Clemson University  
Duke University  
Emory University-Emory Healthcare  
East Carolina University  
Grinnell College  
Harvard University  
Indiana University  
Iowa State University  
Louisiana State University  
Maricopa County Community College District  
Northeastern University  
Northwestern University  
Pennsylvania State University  
Purdue University  
Stanford University  
SUNY-Cortland  
Texas A&M University  
Tufts University  
University of Arizona  
University of California  
University of Denver  
University of Georgia System  
University of Illinois  
University of Maryland-Baltimore  
University of North Carolina at Greensboro  
University of Oregon  
University of Vermont  
University of Washington  
University of Wisconsin System  
Virginia Commonwealth University

## Appendix F

### Quantitative Survey Instrument

Hello: You have been invited to participate in a research project titled “Enterprise Risk Management (ERM) at Colleges and Universities: Administration Processes Regarding the Adoption, Implementation and Integration of ERM.” This survey is part of a dissertation study for the requirements of the PhD in Educational Leadership at Western Michigan University for Anne E. Lundquist. In this survey, approximately 100 administrators with risk management responsibility at colleges and universities will be asked questions about the decision-making and administration processes regarding ERM at their institutions in order to gain insight into current ERM practices in the higher education setting. Administrators are defined as those leading the implementation of ERM. Selected institutions will also participate in qualitative interviews. The 50 item survey will take approximately 15 - 20 minutes to complete. Your participation in this study is completely voluntary. There are no foreseeable risks associated with this project. However, if you feel uncomfortable answering any questions, you can withdraw from the survey at any point. Your survey responses will be strictly confidential and data from this research will be reported only in the aggregate. Your information will be coded and will remain confidential. If you have questions at any time about the survey or the procedures, you may contact Anne E. Lundquist at 315-237-7440 or by email at the email address specified below. Thank you very much for your time and support. Please start the survey now by clicking on the Continue button below.

1. Institution Name

2. Your title

3. First Name

4. Last Name

5. Address 1



Address 2

City

State

Zip

6. Phone

7. Email Address

8. Your degrees and/or professional affiliations (check all that apply)

1. BA
2. MA
3. PhD
4. JD
5. FCPA
6. FCA
7. CISA
8. CIA
9. CRMA

10. Other (please list)

9. Number of years you have worked at this institution

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. 8
9. 9
10. 10
11. 11
12. 12
13. 13
14. 14
15. 15
16. Other

10. Title of the person to whom you report

11. Your department is in the following administrative area:

1. Business/Financial Affairs/CFO
2. Internal Audit
3. President/Chancellor
4. Legal Counsel
5. Auxiliary Services
6. Other

12. Using the following definition, would you say that your institution has an ERM program (regardless of what you call it): A process designed to identify, assess and prioritize, prevent and manage, the key risks that may have an impact on the ability of the institution to attain its long-term strategies and objectives.

1. Yes
2. No

13. What term do you use to describe your ERM program?

1. Enterprise Risk Management (ERM)
2. Strategic Risk Management (SRM)
3. Other

14. What year did your institution begin ERM?

15. What were the drivers for starting ERM at your institution? (Check all that apply)

1. Response to regulatory, legal or compliance failure

2. Improve decision-making
3. As a part of strategic planning
4. Enterprisewide assessment of major risks
5. Board mandate
6. Chancellor/President mandate
7. Economic climate
8. ERM awareness from conferences, journals, readings, colleagues
9. Senior leadership deemed it a best practice to implement
10. Other

16. At what level of the organization did the impetus for ERM begin?

1. Board of Trustees/Regents
2. President/Chancellor
3. Vice President
4. Internal Audit
5. Risk Manager/Analyst
6. Committee
7. Legal Counsel
8. Insurance manager
9. Other

17. What action steps did your institution take when it first began ERM (select all that apply)?

1. Consulted with colleagues at other institutions
2. Literature review
3. Attended conference sessions
4. Used consultants
5. Other

18. Do you have a written risk management policy?

1. Yes
2. No

19. Does your risk management policy include any of the following concepts (select all that apply)?

1. Risk appetite
2. Risk tolerance
3. Risk criteria
4. Risk target
5. Risk limit
6. None of the above
7. Other

20. Have you named a chief risk officer?

1. Yes
2. No

21. Is there a dedicated risk management group/committee that facilitates ERM?

1. Yes
2. No

22. Name of your ERM Committee

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23. Does your board of trustees/regents routinely review risk management information?

1. Yes
2. No

24. What information gathering techniques does your organization use for identifying and assessing risks (select all that apply)?

1. Facilitated workshops
2. Interviews
3. Surveys
4. Web based ERM tool
5. Automated tool
6. Other

25. Does your institution have a list of top risks?

1. Yes
2. No

26. Do you have an ERM web site?

1. Yes
2. No

27. Our ERM program is most closely aligned with

1. COSO
2. ISO 31000
3. Homegrown
4. Does not follow a standard or framework
5. Other

28. How do you know if implementation of the ERM framework has reduced, mitigated, or controlled risk, created opportunity, enhanced financial viability and/or resulted in other positive factors?

29. Please select the statement that most closely describes your institutions ERM maturity

	No structured approach to dealing with risk and uncertainty.	Experimenting with risk management.	Management of risk built into routine business processes.	Risk aware culture with proactive approach in all aspects of the enterprise.
Culture	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

30. Please select the statement that most closely describes your institutions ERM maturity

	No senior administration /board leadership.	Senior administration /board awareness of	High level risks and responses routinely	Risk and outcomes drive organizational
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		risk management, but not integrated into systems.	debated and discussed by senior administrators/board.	decision-making at the senior administration /board level and are deemed critical to the achievement of institutional goals.
Culture/Leadership	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

31. Please select the statement that most closely describes your institutions ERM maturity

	Very limited understanding of risk management principles or language.	Limited to a small number of experts.	Core of experienced risk management individuals throughout the institution.	Risk awareness throughout the institution.
Experience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

32. Please select the statement that most closely describes your institutions ERM maturity

	There is no person/committee in charge of risk management at the institutional level.	There is a person/committee in charge of institutional risk management.	There is a person/committee with the authority to enact changes regarding institutional risk management.	The person/committee in charge of institutional risk management work in conjunction with senior management and the board.
Application: Structure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

33. Please select the statement that most closely describes your institutions ERM maturity

	Risk strategy and framework is unclear.	Risk strategy and framework is under development.	Risk strategy is defined and risk management framework developed and used.	Risk strategy defined and kept under review; risk management framework fully implemented and
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				benchmarked against best practice.
Application: System/Framework	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

34. Please select the statement that most closely describes your institutions ERM maturity

	Risks are identified on an ad hoc basis.	There are established identification and reporting mechanisms for risks in some areas of the institution.	There is an easy way to identify and report risks throughout the organization.	Employees routinely report risks in a formal, structured way throughout the organization.
Application: Risk identification/reporting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

35. Please select the statement that most closely describes your institutions ERM maturity

	No risk evaluation and prioritization is performed.	A decentralized risk evaluation and prioritization is performed.	A centralized, strategic risk evaluation and prioritization is performed.	Top institutional risks that have been evaluated and prioritized are integrated into planning and decision-making.
Application: Risk Evaluation and Prioritization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

36. Please select the statement that most closely describes your institutions ERM maturity

	No attempt to standardize similar processes.	Some attempt to standardize similar processes.	Similar processes are evaluated across the institution.	Similar processes are standardized across the institution.
Application: Compliance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

37. Please select the statement that most closely describes your institutions ERM maturity

	There is no link between risk management and strategic planning.	There are links in some instances between risk management and strategic planning.	There is an intentional, side-by-side process to connect risk management and strategic planning.	There is full integration of risk management and strategic planning.
--	--	---	--	--

Application: Integration with Strategic Planning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Please rate the extent to which the following statements are true for your institution:

	Not descriptive	Somewhat descriptive	Descriptive	Exactly descriptive
38. Risk management is embedded in all of the organizations practices and processes in a way that is relevant, effective, and efficient.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39. The risk management process is part of, not separate from, organizational processes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40. The risk management plan is integrated into other organizational plans, such as the strategic plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41. The risk management process is embedded in the culture and practices of our institution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42. The risk management process is tailored to the business practices of our institution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43. The organization has a current, correct, and comprehensive understanding of its risk.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44. All decision-making within the institution involves the explicit consideration of risks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45. Risk management is seen within the organization as providing the basis for effective governance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46. Comprehensive and frequent external and internal reporting on significant risks and risk management performance contributes substantially to effective governance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47. Administrators regard effective risk management as essential for the achievement of the institutions objectives.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48. Faculty regard effective risk management as essential for the achievement of the institutions objectives.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

49. Please list other higher education institutions with ERM programs with whom you have consulted or collaborated in the development of your ERM program.

50. Would you be interested in being contacted for a short (half hour) follow up interview?

1. Yes
2. No





## Appendix G

### Titles of ERM Administrators from the Quantitative Sample

Assistant Vice Chancellor for Enterprise Risk Management  
Associate General Counsel  
Associate Director of Enterprise Risk Management  
Associate Director, Risk and Audit Strategy  
Associate Director, Special Projects  
Director, Health Systems and University Audit  
Assistant Vice President & Chief Risk Officer  
Assistant Vice President for Institutional Resilience  
Associate Vice President for Safety & Risk  
Chief Risk Officer (2)  
Controller  
Director  
Director of Enterprise Risk Management  
Director, Environmental Health and Safety  
Director of Internal Audit  
Director of Purposeful Risk Engagement Program (and Professor of English)  
Director, Risk Management and Insurance  
Director of Risk Management and Special Projects  
Director of Special Projects  
ERM Analyst  
ERM Compliance Officer (2)  
ERM Program Manager  
Executive Director, Internal Audit  
Institute Risk Officer  
Manager of Compliance and Internal Controls  
Purchasing and Risk Manager  
Risk Manager  
Risk Management Officer  
University Compliance Officer  
University Risk Manager  
University Risk Officer  
Vice President for Operations and Planning, Chief Accountability and Compliance Officer  
Vice President Risk Management and Facilities

## Appendix H

### Institutions Contacted by ERM Survey Respondents

Auburn University  
Augustana College  
Bentley University  
Boston University (2)  
Carnegie Mellon  
Catholic University  
Columbia University  
Connecticut College  
Duke University (2)  
East Carolina University  
Emory University (6)  
Franklin College (IN)  
Gettysburg College  
Harvard University (2)  
Ithaca College  
Indiana University  
Iowa State University  
Johns Hopkins University  
Maricopa Community College District  
MIT  
New York University  
Notre Dame  
Northwestern  
Pennsylvania State University (3)  
Stanford University  
SUNY Binghamton  
Swarthmore College  
Susquehanna University  
Texas A&M University (3)  
Tufts University  
University of California (2)  
University of Iowa  
University of North Carolina, Chapel Hill (2)  
University of Maryland-Baltimore (2)  
University of Minnesota  
University of Texas System  
University of Virginia (2)  
University of Vermont  
University of Washington (2)  
Westmont

## Appendix I

### Name of ERM Committee in Quantitative Sample

Audit and Risk Committee

Committee on Institutional Control, Compliance and Risk

Enterprise Risk Management Committee (2)

ERM Committee (4)

ERM Risk Council

ERM Steering Committee (2)

ERM Tactical Action Committee

Executive Risk and Compliance Committee

President's Advisory Committee on Enterprise Risk Management (2)

President's Risk Cabinet

Risk Council

Risk Control Committee

University ERM Risk Council

University Risk and Compliance Committee

University Risk Management Council

## Appendix J

### Findings Supported by the Quantitative and Qualitative Data

<b>Finding</b>	<b>Quantitative Data</b>	<b>Qualitative Data</b>
1. ERM as a concept and process has renewed attention in higher education after a flurry of interest in the early 2000s and then a hiatus.	Average reported years since launch was 6.2. Thirty-nine percent four years or less since adoption. Earliest adopted in 2002 and most recent 2015. 25 institutions identified at the beginning of the study and 68 at the completion.	Five survey respondents attended an ERM conference, but responded “no” to question about whether they had ERM on the survey. ERM a hot topic in literature and conferences in early 2000s, then a hiatus. UW program “on hiatus” while ERM reorganized into Organizational Excellence program under supervision of the provost. Renewed attention in conference proceedings at all levels (e.g. ACE, URMIA, NACUA, NACUBO, and AAUA).
2. IHEs use the term ERM, but are uncomfortable with it.	76% use the term ERM. Other terms include Strategic Risk Management, University Risk Management, Institutional Risk Management (2), Risk Control, Purposeful Risk Engagement, and Strategic Risk Management Priorities.	Review of ERM web sites in Appendix B (68 IHEs). Grinnell PREP blog. University of Arizona. University of Oregon.
3. The impetus for the ERM program comes from the president or board, cited as a “best practice” decision, but often has roots in compliance or governance failure – but that is changing.	ERM program impetus starts from the top (55% pres or board; 17% vp). 75% cited best practice as the reason. 6% cited compliance failure.	Conversations illuminated that even when the decision starts from the top, the reason is often some failure that jumpstarts it. When they list the reason, however, IHEs cite best practice to improve decision-making. UW example – public Medicare scandal. Emory example of finances less media attention, but caused internal concern for board. New president or change in board leadership often jumpstarts, but also

		<p>stalls ERM efforts. Grinnell had new president who asked about ERM and it was “strange to all in the cabinet, even the treasurer.”</p> <p>UVM: reason for implementing was they identified weaknesses in internal control environment; board wanted assurance.</p>
4. The role of the risk manager in higher education is evolving and expanding.	59% of IHEs have not named a CRO. Highest level of risk maturity (3.0) there is a person/committee in charge of risk management.	<p>“Independent, one person, internal consultant for the senior staff and the president” (UVM). “Your bosses look at your skill set and mine happens to be strategy” (UVM). “We made a very deliberate decision early on not to formalize ERM through a compliance czar or CRO” (UW). “You can’t use internal audit to do ERM, but the skill set you need is an auditor’s, along with business and strategy knowledge. With ERM’s placement [at Yale], we were also the eyes and ears for the president” (Jean Chang). “There are examples of institutions with compliance problems where there is an ERM director who may be a leader in the field, but their role at the institution is not senior enough” (John Nelson, Moody’s).</p>
5. Most IHEs have an ERM committee (although the name of the committee and the location within the organization varies).	83% have an ERM committee. Highest level of maturity (3.0) there is a person/committee in charge of risk management.	<p>“We are implementing ERM through committee” (UW). Memos, document review of committee structures at IHEs in Appendix B.</p>
6. Almost half of IHEs use a homegrown framework or no framework at all – the rest use COSO or IS) 31000.	Almost half have a homegrown (31%) or no (10%) framework. 38% use COSO and 21% use ISO.	<p>Frameworks presented by consultants feel too “corporate” (Emory, Grinnell). Emory wanted to “avoid consultant speak” and felt the consultant’s approach was “too highly metric.” Grinnell said something was “off kilter” about the consultant’s report as if it were “trying to impose the standard industry ERM model. “Tim</p>

		<p>Wiseman of ECU recommends a hybrid approach – using a framework and then consciously and deliberately making adjustments that fit the particular culture or skill sets of those involved at the IHE. UW adapted the COSO cube: “By definition, ERM is broad-based and abstract and you’re using all sorts of diagrams to talk about it. It’s hard to talk about ERM and not use the cube when you’re introducing it to new people” (UW). “COSO is what many IHEs use, but the ISO 31000 is a step up” (Jean Chang).</p>
<p>7. The majority of IHEs do not have a written risk management policy or any of the traditional elements of a risk policy, such as risk appetite or risk tolerance statements.</p>	<p>90% do not have a formal written risk management policy. 25% said they had none of the traditional elements of a RM policy. 18% had risk appetite statement.</p>	<p>These survey items were added as a result of the pilot test with a corporate sector ERM expert, to which the IHEs responded that they didn’t have them. Conversation with ERM Roundtable on this topic indicates that CROs are attempting to get their IHE to write risk appetite statement, but senior leadership doesn’t understand what it is, even with examples. They are also worried about open records laws and public board meetings. Risk appetite statements could be misinterpreted by the public. Emory has Guiding Principles rather than risk management policy. Grinnell has a risk management manifesto.</p>
<p>8. Most IHEs have a list of “top risks” that are reviewed by the board.</p>	<p>83% have a list of top risks reviewed by the board (only 3 respondents shared the actual lists).</p>	<p>Emory identified over 500 risks and pared them down to their top 50. “We identified and tabulated all the risks and then we really didn’t know what to do next” (Jean Chang).</p>
<p>9. ERM is not understood or endorsed by the faculty.</p>	<p>Lowest level on the maturity scale (1.5): faculty regard effective risk management as essential for achieving institution’s objectives.</p>	<p>“ERM will flounder without support from the faculty.” “ERM helps faculty see the business side of academia. We’ve had department chairs say, ‘I really hate this kind of stuff’” (UW). “So far it’s been</p>

		evolutionary, but when you get deans asking you to come in and do a risk assessment for their unit, you know you are making progress. They see the merit” (UVM).
10. ERM at IHEs is not embedded into institution-wide governance and decision-making.	See Table 5. Survey item 28.	“For executive leadership, they hear about the operational risks and sometimes a lightbulb goes on about strategy” (Emory). A challenge of ERM is “getting ERM considerations included early enough in the process of considering new initiatives and strategic planning activities” (ECU). “The nature of risk is that it is out ahead on the horizon, something that is forward looking or hasn’t happened yet, and the penchant on the part of well-intentioned leaders is to work on things that have already happened or are in place” (Grinnell). “Most senior people don’t think of ERM as an everyday tool. They think of it as a tool for when a problem occurs” (UVM). “We ask a simple question about how risk or opportunity relates to a strategy – that’s how we make the linkage. I have to cross-walk the strategic action plan with the risk management plan and make the tie-in. Just the spreadsheets and the analysis, it never really adds up to strategy” (UVM). “We started at the unit level with units that had well established strategic planning processes. We differentiate between the integration with the planning process according to level, be it at the unit level or the entity level” (UW).
11. In describing ERM “value,” there is a tension between	IHES in the quantitative sample were most mature on the risk evaluation and prioritization (3.0), but they	One administrator said she was “jealous” of her corporate counterparts who created “simple, succinct ERM reports on one page

process and product outcomes.	ranked themselves lower (2.2) on risk identification and reporting. Survey item 28.	<p>for their boards. With our business being so different, it's just not that clear cut." "Highlighting major risks has increased focus, resource allocation, and clearer assignment of risk responsibility, and accountability, which has spurred greater progress than we had seen previously on these issues." "ERM and strategic planning can be too linear. Strategy is moving and needs to take into account internal and external changes. Others say we need some structure. You need to find the sweet spot" (UVM). "Our first few years of ERM implementation were really focused on risk assessments" (UW). "We're not gonna oversell the accomplishments of ERM and lay claim to preventing anything, but the ERM tools are given credit for complementing some of the other work that is going on in the area" (UW). "Management doesn't always see the 'value-added' of ERM" (Jean Chang). "The soft side of ERM can't be quantified on a heatmap" (Jean Chang). "ERM is a tool, a line of questioning, to understand if the diversity of the enterprise is known to the board and if the president is scanning the enterprise" (John Nelson, Moody's). "IHEs need to be curious and bring in new ideas to renew themselves. Higher education isn't particularly good at this. There is a contradiction in higher education. There is a perception of higher ed as left wing and progressive, but when you look at higher ed institutions, they are conservative and inward looking" (John Nelson, Moody's).</p>
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12. IHEs are conflicted about whether or not to highlight and emphasize ERM in order to easily measure the impact and demonstrate accountability or integrate and embed it into existing structures to improve decision-making and governance.	Survey responses to item 28.	In an attempt to demonstrate the “value” of ERM, an administrator made a list of all of the things that had come before the ERM committee and been addressed. “But,” she pointed out, “ERM doesn’t <i>do</i> the mitigation – <i>people</i> do the mitigation. How do you help people see that?” “The more tightly integrated ERM is with the governance structure, the harder it is to isolate the ERM positives” (Grinnell). A separate risk committee “has the disadvantage of a shadow structure whose relationship to the centers of governance may not be clearly defined” (Grinnell). UW moved ERM into Organizational Excellence, under purview of the provost. University of Maryland-Baltimore CRO oversees human resource services, community engagement, accountability and compliance, strategic planning, enterprise risk management, and the policy oversight work group. Western Michigan University is integrating ERM with Strategic Planning.
13. Regardless of institutional type and size, or reason for adoption, IHEs have common ERM adoption, implementation, and integration elements and challenges.	Survey item 28.	“ERM is a very slow, deliberate process. It’s not gonna happen overnight” (UVM). “ERM is a journey of discovery” (UW). “It’s been a ride. There was a lot of opposition in the beginning” (UVM).
14. Regarding ERM adoption, implementation, and integration, four unique aspects of higher education culture (previously identified	Maturity items: Decentralized risk evaluation and prioritization (3.0), some attempt to standardize compliance practices (2.6), risk management is part of organizational practices	The “university environment does not generally lend itself to top-down instructions” (Emory). “The corporate model is too bloodless. The idea of risk is much richer than the financial bottom line. There are many things we care about more

in the literature) are particularly relevant: mission-driven organization, goal ambiguity, shared governance, and decentralized decision-making.	(2.4), there are links between strategic planning and risk management (2.2), risk management is viewed as basis for effective governance (2.2), risk management is embedded in organization practices (2.0), decision-making includes explicit consideration of risks (1.9), faculty view risk management as essential for effective governance (1.5). Survey item 28.	than the numbers being added up” (Grinnell). “We hired a consulting firm, but their approach was too complicated” (Clemson). “Faculty give a stringent critique of corporatizing the university. ERM can be a target and viewed as administrative bloat” (Grinnell). “We’re very stovepiped in higher education. We don’t want to do the cross-talks” (UVM). “We’re a very risk averse culture” (UVM). “Higher education is decentralized with a lot of faculty authority” (UVM). “In higher education, we generally take one little piece at a time and it evolves into something. I took the army approach – we made the manual first and people follow it” (UVM). “The university environment is very decentralized” (UW). “A college or university is a major enterprise, but we don’t want to admit to running an enterprise” (Jean Chang). “Corporate consultants [on ERM] want to get into the higher education business, but they can’t take the corporate mentality or they won’t even get the first meeting” (Jean Chang).

Note: Quotes in the qualitative column are from open-ended survey responses, interviews, and/or document analysis