

A REPORT CARD FOR RISK MANAGEMENT IN HIGHER EDUCATION FOR TWO-  
YEAR COLLEGES IN MINNESOTA, WISCONSIN, AND MICHIGAN: A STUDY TO  
ASSESS GAPS REGARDING RISK MANAGEMENT IN HIGHER EDUCATION

A Dissertation  
Submitted to the Graduate Faculty  
of the  
North Dakota State University  
of Agriculture and Applied Science

By

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In Partial Fulfillment of the Requirements  
for the Degree of  
DOCTOR OF PHILOSOPHY

Major Program:  
Education  
Option:  
Institutional Analysis

July 2017

Fargo, North Dakota

North Dakota State University  
Graduate School

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**Title**

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**DOCTOR OF PHILOSOPHY**

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## ABSTRACT

The purpose of this study was to organize the identified risks into one of the five classifications in order to establish a taxonomy created by peers and to measure the variances in the level of risk at two-year colleges. A universal problem for colleges and universities is the difficulty of finding peer groups that have and are willing to share best practices about managing the risks and the losses experienced due to poor risk management. Because colleges and universities are being asked to do more with less, they cannot afford to miscalculate the potential risks that are associated with events that may affect the institutions' achievement of specific objectives. Consequently, it is essential to implement an Enterprise Risk Management system that manages the risk appetite when classifying strategic risk, operational risk, financial risk, reputational risk, and compliance risk (Kerr & Hosie, 2013).

Examples of common risks for colleges and universities are identified throughout the review of literature: 24-hour access to buildings, hazing, surveillance cameras and privacy issues, blood-borne pathogens, festivals and sporting events, foreign travel, food contamination, vehicle liability, and bed-bug infestation in student housing.

The following research questions guided the study:

1. How do two-year college administrators classify various risks into risk taxonomy?
2. Are there differences among the levels of perceived risk based on the level of administrative position held?
3. What new risks are surfacing at two-year colleges?
4. Are there differences among the levels of perceived risk based on the respondents' demographics?

## ACKNOWLEDGEMENTS

I would like to express my gratitude to my doctoral committee for their support. Dr. Carol Cwiak, Dr. Brent Hill, and Dr. Rhonda Kitch provided valuable insight, feedback, and encouragement. I am eternally grateful for the countless hours and “nudges” my adviser, Dr. Myron Eighmy, invested into my doctoral studies and research. Thank you for being with me through this process.

I am also thankful for the support of numerous classmates, colleagues, and co-workers. Thank you for your patience and understanding. I am so appreciative of your words of encouragement.

My immediate and extended family has provided reassurance and inspiration. I am even more grateful for my parents as they are in inspiration to me and have provides their support of my educational goals over the years. Thank you to my sister, Marie, and brother, Tom, for their encouragement.

Most of all thank, you to my loving wife, Jenny. Thank you for your boundless sacrifices, unconditional love through the challenges we faced. Together we can accomplish anything! Thank you also to my children, Krystle, Leanna, and Robert, for your encouragement. To my grandson, Jayden, remember you can be anything you want even if you want to be a dinosaur.

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## CHAPTER 1. INTRODUCTION

Because higher education faces operating-fund shortfalls, many institutions are turning to risk management in order to maximize resources. Although familiar to business and industry, risk management is relatively new in higher education, and the practice is gaining importance at both private and public colleges and universities (United Educators, 2009). In the process, risk management has expanded beyond insuring against loss and has grown into Enterprise Risk Management (ERM). Unlike traditional risk management, ERM does not view risks in isolation but, instead, evaluates a number of risks concurrently in order to determine how they impact the institution's overall goal (Beasley & Frigo, 2007). It is also important to fully understand that, when ERM is implemented correctly, it is designed to protect an institution, not to lead to the institution's paralysis by analysis and to prevent it from taking any risks (Strikwerda, 2014).

Analysts using ERM in the financial world strive to create a blend of high-, moderate-, and low-risk financial vehicles, thus creating a portfolio that is insulated from heavy losses if one financial sector suddenly suffers unforeseen shortfalls (Beasley & Frigo, 2007). Similarly, in higher education, ERM determines the level of risk an institution can assume and allows the institution to create a mix of high, moderate, and low investments (Beasley & Frigo, 2007). Implementing ERM enables an institution to realize more gains than it could have by investing solely in low-to-moderate risks in order to avoid overexposure (Beasley & Frigo, 2007). Enterprise Risk Management takes a broad view because it attempts to identify events that could potentially affect the institution and to manage risks within a comfort level, providing reasonable assurance that the institution's objectives will be achieved (Abrams, Von Kanel, Muller, Pfitzmann, & Ruschka-Taylor, 2007; Fraser, Schoening-Thiessen, & Simkins, 2008). Enterprise Risk Management is affected by an institution's board of directors, managers, and others

(Association of Governing Boards of Universities and Colleges [AGBUC] & National Association of College and University Business Officers [NACUBO], 2007).

Five categories of risk exist within Enterprise Risk Management: strategic, operational, financial, compliance, and reputational (AGBUC & NACUBO, 2007; United Educators, 2009). These five risk classifications exist in any organization; however, their potential impact varies among organizations (University Risk Management and Insurance Association [URMIA], 2007).

Many colleges and universities have experienced increased risks as well as the potential losses associated with those risks. With more risk comes an increased need for risk managers to evaluate how colleges and universities prioritize the risk (United Educators, 2009). This study explored the risks that must be addressed in order to prevent the negative effects that could result from improperly prioritizing and managing risk in higher education.

### **Statement of the Problem and Importance of the Study**

A universal problem for colleges and universities is the difficulty of finding peer groups that have and are willing to share best practices about managing the risks and the losses experienced due to poor risk management. Because colleges and universities are being asked to do more with less, they cannot afford to miscalculate the potential risks that are associated with events that may affect the institutions' achievement of specific objectives. Consequently, it is essential to implement an Enterprise Risk Management system that manages the risk appetite when classifying strategic risk, operational risk, financial risk, reputational risk, and compliance risk (Kerr & Hosie, 2013).

Traditional risks, such as vehicle safety, fire, and natural disaster, are generally covered by loss insurance. In business and industry, a central-office staff often manages such risks. Unfortunately, as the nature of risk has evolved, many colleges and universities have not kept

pace with their risk-management processes and have been slow to adopt an effective risk-management practice, such as Enterprise Risk Management, which is commonly used by business and industry (AGBUC & NACUBO, 2007).

Examples of common risks for colleges and universities are identified throughout the review of literature: 24-hour access to buildings, hazing, surveillance cameras and privacy issues, blood-borne pathogens, festivals and sporting events, foreign travel, food contamination, vehicle liability, and bed-bug infestation in student housing. Unlike traditional risk management, ERM watches for risks everywhere, monitoring those risks with a variety of systems and a number of people (Casualty Actuarial Society, 2003). Because various institutional departments monitor risk differently, these divisions address risk in various ways; risk can be monitored and measured with a wide range of tools that are customizable for each risk area. Identifying the key risk indicators (KRIs) can provide those monitoring with early warnings about potential dangers. Timely analysis of KRI trends (such as increased student enrollment, decreased credits for each student, or sports-related injuries to athletes) enables focused discussions among institutional divisions regarding opportunities to enhance controls for the current and emerging risks (Committee of Sponsoring Organizations of the Treadway Commission [COSO], 2010). When risk is monitored at the source, it enables an organization to react quickly in order to prevent the consequences from getting worse (AGBUC, 2014).

Risk management is an essential part of any college or university's management plan. ERM aims to add maximum sustainable value to an organization's activities, not just to reduce the organization's financial risks. With ERM, employees or consultants methodically address the risks attached to their activities with the goal of achieving sustained benefits within each activity and across the range of all activities. Because ERM has gained acceptance at colleges and

universities, more departments and employees have been charged with managing risk (Klinksiek, 1999; United Educators, 2009).

Good risk management effectively identifies and treats risks with the overall objective of adding maximum value to the organizational activities that are driven by employees or other stakeholders (AGBUC & NACUBO, 2007). Enterprise Risk Management identifies the potential upside and downside for many factors that can influence an organization. When used effectively, ERM can increase the probability of success and reduce the level of failure, thereby diminishing the feelings of insecurity that are commonly experienced when an organization fails to meet its overall goals (AGBUC, 2014; COSO, 2011).

United Educators (2009) and COSO (2004) discussed commonalities that an organization must integrate into the organizational culture through an effective risk-management policy and a risk-management program that is supported by the organization's management. Good risk management translates strategy into tactical and operational objectives, assigning responsibility throughout the organization to all managers and employees who can best manage risk in their jobs. Standard risk management supports accountability, performance measurement, and reward, thus promoting operational efficiencies at all levels (The Institute of Risk Management [IRM], 2002).

### **Purpose of the Study**

The study's purpose was to organize the identified risks into one of the five classifications in order to establish a taxonomy created by peers and to measure the variances in the level of risk at two-year colleges.

### **Research Questions and Conceptual Framework**

The following research questions guided the study:

1. How do two-year college administrators classify various risks into risk taxonomy?
2. Are there differences among the levels of perceived risk based on the level of administrative position held?
3. What new risks are surfacing at two-year colleges?
4. Are there differences among the levels of perceived risk based on the respondents' demographics?

### **The Significance of the Study**

The study's significance was to compile timely and relevant information that may be used as a tool for developing a risk taxonomy that can be utilized by two-year colleges in order to manage operational, financial, compliance, reputational, and strategic risks that are associated with day-to-day operations. During the review of literature, no similar studies identifying such gaps or taxonomies were found. This research illustrated how two-year colleges are exposed to various levels of risk and how those risks are viewed differently based on the person's administrative position. Only three dissertations that address risk management in higher education were found (Eick, 2003; Harwell, 2003; Whitefield, 2003). None of these dissertations addressed establishing a taxonomy that was created by peers or measuring the risk-level variances at two-year colleges based on the individual's administrative position.

### **Definition of Terms**

This section of Chapter 1 provides definitions for the terms and acronyms that are unusual or not widely understood. In addition, common terms that have a specific meaning for the study are defined in this section.

*Compliance Risk:* Affects compliance with externally imposed laws and regulations as well as with internally imposed policies and procedures concerning safety, conflict of interest, etc. (Cassidy, Goldstein, Johnson, Mattie, & Morley, Jr., 2001).

*Financial Risk:* Loss that may result in the reduction of fiscal assets (Cassidy et al., 2001).

*Level 1 Administrator (L1):* President, risk manager, vice president, chief financial officer (CFO), chief executive officer (CEO), provost, executive director, or executive business manager.

*Level 2 Administrator (L2):* Dean, director, business manager, department chair, program coordinator, or department head.

*Operational Risk:* The threat of a loss that results from an inadequate or failed internal process, whether by people, the system, or external events.

*Reputational Risk:* Response to an event which affects an organization's reputation, brand, or both (Cassidy et al., 2001).

*Risk:* The uncertainty that an event will occur and adversely affect the achievement of objectives (COSO, 2004).

*Risk Acceptance:* The response where no action is taken to affect the risk's likelihood or its impact (COSO, 2004).

*Risk Appetite:* The amount of risk, on a broad level, that an entity is willing to accept as it tries to achieve its goal and to provide value for stakeholders (COSO, 2004).

*Risk Avoidance:* The response where you exit the activities that cause the risk (COSO, 2004).

*Risk Control:* The technique of minimizing the frequency or severity of losses with training, safety, and security measures (International Risk Management Institute [IRMI], 2011).

*Risk Culture:* Management's appearance and attitude regarding ERM that is conveyed to the personnel (COSO, 2004).

*Risk Management:* The approach an institution takes for evaluating, prioritizing, and optimizing strategic options (COSO, 2004).

*Risk Reduction:* The response where action is taken to mitigate the risk's likelihood and its impact (COSO, 2004).

*Risk Retention:* Planned acceptance for losses by deductibles, deliberate noninsurance, and loss-sensitive plans where some, but not all, risk is consciously retained rather than transferred (IRMI, 2011).

*Risk Sharing:* A response that reduces the risk's likelihood and impact by sharing a portion of the risk (IRMI, 2011).

*Risk Tolerance:* An organization's willingness to incur risk in order to gain a future reward (IRMI, 2011).

*Strategic Risk:* defined plan of action(s) which affects an organization's ability to achieve its goals (Cassidy et al., 2001).

### **Organization of Chapters**

This study is organized into five chapters followed by the appendixes. Chapter 1 provided an Introduction for the study, with supporting information, including research questions, The Significance of the Study, and the Definition of Terms. Chapter 2 reviews the literature pertaining to this study. Chapter 3 outlines the methodology, population and sampling, Instrumentation, Data Collection, Variables, and Data Analysis. Chapter 4 discusses the resulting



Findings and summary. The final chapter provides an overall summary, Major Study Findings, Limitations, recommendations for further research, and Conclusions.

### **Chapter Summary**

Developing an effective risk management plan is essential for two-year colleges and will only improve how administrators manage risk by either preventing loss or capitalizing on gains due to previous lost opportunities. Determining how to best accomplish meeting identified goals has previously been challenging for administrators who have not had access to proper risk management resources. It is this researcher's expectation that this study's results will help raise an awareness of risk management in higher education and to be an additional resources to college two-year college administrators.

## CHAPTER 2. REVIEW OF THE LITERATURE

### Introduction

In 2008, the University Risk Management and Insurance Association (URMIA) published a white paper titled *Measuring the Total Cost of Risk*. In this paper, URMIA stated that risk exists everywhere, including institutions of higher education. Since the 1960s, a variety of methods have evolved to classify risk. In higher education, risks can assume many forms, including an active shooter on campus, food poisoning, a loss of reputation, or simple injuries caused by slipping and falling.

While the colleges and universities' missions have evolved a great deal in recent decades, the institutions have not made major changes to manage risk in standard operations, in partnership development, and in loss mitigation while promoting the colleges' missions (URMIA, 2011). Levels of risk vary; institutions that receive funding to conduct research assume different risks than the ones faced by community colleges. As The Open Group (2009) identified in *Technical Standards Risk Taxonomy*, managing risk without a tightly defined taxonomy deteriorates the capability to assess risk factors by comparing risks to comparable classification. Without such taxonomy, it is nearly impossible to make comparisons with similar colleges or universities. Currently, no common taxonomy exists to help colleges and universities measure themselves and to compare their risk levels to comparable institutions. Creating such taxonomy will help institutions develop methods to assess and to manage risk.

Business and industry have developed numerous risk-management practices, procedures that higher education can adapt to its risk-management needs. Modifications are needed because colleges and universities face risks that are not experienced by business and industry (URMIA, 2007). Because awareness about this difference has grown, colleges and universities have created

new positions and adopted new risk-management methods. One such new method, Enterprise Risk Management, is gaining acceptance and implementation across American higher education (Cassidy et al., 2001)

As previously noted, only three dissertations that address risk management in higher education were located during the review of literature. In the first dissertation, Whitfield (2003) focused his study on colleges and universities' institution-wide risk-management frameworks. Whitfield's dissertation identified that, due to changing surroundings, educational leaders are being challenged to cultivate strategies in order to safeguard their core mission. Furthermore, Whitfield illustrated the risks that need to be addressed: strategic, financial, operational, compliance, and reputational. Whitfield's findings noted that the ERM framework is transferable to a setting that is feasible for use in higher education. Whitfield (2003) also surmised that college and university leaders will have to decide to proactively embrace ERM for their institutions' operational functions or risk the approach of being reactive to costly issues that have a negative bearing on achieving their mission.

The second dissertation examined what traits make university risk managers influential with their jobs. In this dissertation, Eick (2003) identified that there is a requirement to understand ERM and the five classifications: operational, strategic, financial, compliance, and reputational. Eick (2003) inferred that the reasoning for this requirement is the steady shift from traditional risk-management practices to a holistic model that is becoming popular and being promoted by the National Association of College and University Business Officers (NACUBO; n.d.). Eick (2003) also identified the traits required for an influential risk manager: possessing strong technical knowledge and experience, leadership skills, and having the ability to form

positive relationships. Eick (2003) also drew attention to the fact that these three traits are identified as core competencies by the Risk Management Society (RIMS).

The third dissertation highlighted the effectiveness of risk-management practices in higher education. In this dissertation, Harwell (2003) addressed two different classifications of higher education: Educators Legal Liability (ELL) and General Liability (GL). Harwell noted a significant cost differential for indemnification between ELL and GL. For each dollar of indemnification related to ELL, such as discrimination and office of civil rights violations, breach of contract, and tort claims and defamation, \$1.06 was spent on defense. For each dollar of indemnification related to GL, such as premises liability, assault and other crime, vehicle liability, and event exposure, nine cents were spent on defense costs.

Harwell (2003) also noted that scholarly publications focusing on risk management for higher education had received minimal attention. The lack of published studies suggested that more research is needed to advance higher education's risk management in order to gain ground and to provide knowledge about this expanding operational role at colleges and universities.

Colleges and universities are not unique to the point where ERM would be irrelevant or impossible to implement. Risk management already takes place at most institutions. ERM expands that process to include all divisions within the institute (COSO, 2004). ERM consists of five accepted classifications: strategic, operational, financial, compliance, and reputational (COSO, 2010, 2011; URMIA, 2007).

### **Strategic Risk**

Strategic risk addresses high-level goals that are aligned with and support the institution's mission (COSO, 2004). In 2014, Association of Governing Boards of Universities and Colleges in addition to United Educators (2009) identified that strategic risk is high and encourages a

more holistic view by reviewing risk factors across the institution as part of a strategic planning process. By using such a risk-assessment strategy, leadership can focus on specific risks that can impede the institution from succeeding at its mission. These risk assessments need to be utilized, with an ongoing process, by governing boards at the highest level.

*A Wake-up Call: Enterprise Risk Management at Colleges and Universities Today*, AGBUC (2014), identified that the strategic planning process happens more often and focuses on shorter timeframes than previously thought due to rapid fluctuations with the economy, technology, and world culture. This philosophy provides a greater opportunity and need for boards to rework strategies in order to address prospects for success and to assess institutional risk more often, adjusting as needed to mitigate risk.

A strategic risk-avoidance change can make a large difference with survival. Hoover (2013) wrote about how Notre Dame de Namur University redefined its recruitment efforts from a national span to a regional focus in order to meet specific needs and to maintain its standing as a Roman Catholic university while achieving a designation as a Hispanic-serving institution which qualifies for additional federal grant dollars which help keep the institution's doors open.

Lovik (2014) outlined some unintended consequences of poor strategic planning that result from a drop of student enrollment and how the failure to plan accordingly can spin an institution into crisis mode. The domino effect of inaccurately forecasting student enrollment can be catastrophic. The resulting long-term effect can have a wide range of negative consequences, such as program closures, faculty and staff layoffs, decreased services for students, cancelled capital improvements, and mothballing of student housing.

## **Operational Risk**

Operational risk focuses on the organization's ongoing management process and daily activities (COSO, 2004). At this level, the focus is on the institution being managed by the group of leaders who are closer to the challenges. A survey conducted by AGBUC and NACUBO (2007) identified that front-line managers, such as department heads and deans, are in the best position to identify risks and to develop ways to mitigate them.

Mullin (2014) argues that, while the recession of 2009 ended, it still influences how colleges' operational risk is handled in 2014. Funding for students is heavily supported through state appropriations based on enrollment data and student-success rates. In times of reduced enrollment, smaller allocations follow. Reduced allocations significantly affects operational capacity and forces institutes to continuously drive towards improving efficiency and productivity for student services, instructional delivery, and facility operations.

## **Financial Risk**

Financial risk addresses the protection of institutions' assets and quality of financial reporting (COSO, 2004). Institutions are continuously attempting to mitigate negative financial risk through a variety of strategies. Stoner and Cavins (2003) wrote about how schools are partnering with a variety of angel investors to build new student housing. Many existing residence hall were built in the late 1960s and early 1970s to meet the needs of baby boomers; these buildings are at the end of their life cycle and lack the current functional needs.

Martin Van Der Werf (1999) explained how San Francisco State (SFS) worked with Catellus Development Corporation to build a \$447.5-million student-apartment complex on the campus after the student housing was destroyed beyond repair by an earthquake. The Catellus Development Corporation operates and runs the facilities for SFS as standard apartments, only

allowing students to rent units, and the college counts the rooms as part of its inventory for student housing.

### **Compliance Risk**

Compliance risk requires the institution to adhere to applicable laws and regulations. Clair (2009) discussed the overarching goal of compliance risk management: to help ensure that an organization's functions are within the procedures and controls that are required to ensure that proper safeguards are in place for consumers or other relevant entities. An organization needs to comply with laws, regulations, and standards along with its own policies, procedures, and code of ethics. When organizations are non-compliant, they often become vulnerable to fines, legal damages, unsatisfied customers, lost opportunities, or tarnished reputations.

Harrington and Schumacher (2006) illustrated that compliance risk management works to establish systems that ensure specified guidelines are in place and followed. When something does not comply, it is evaluated and reported so that corrective action is taken. This function can be accomplished by utilizing internal and external auditors. The process of conducting audits is effective for identifying non-compliance and taking appropriate corrective actions, such as employee training, implementing different practices, and re-working policies and procedures. Identifying non-compliance and taking corrective action is all part of an effort to achieve the overall organizational objective and to minimize loss.

### **Reputational Risk**

According to Louisot (2004), a reputation can be ruined overnight by an ill-managed event which results in a crisis. The challenge is that such reputational damage can come from any direction. A lower reputation may result from any risk with which the organization is confronted, and that damage is directly linked to the way in which the incident/accident is

managed as well as to the organization's capacity to react to and deal with the event. In other words, the key for handling reputational risk is sound risk management, coupled with straightforward communication about the problem that the organization is facing.

Reputational risk is viewed by senior administrators as the most-significant threat that can be posted. Depending on the severity, it is difficult to recover from reputational failure, with an approximate time of 3.5 years (The Conference Board, 2007).

At the center of reputational risk management is a cultural vigilance for protecting the reputation of the organization. Another crucial consideration is that there is practically no risk-transfer mechanism to cover the perils that are linked to reputation management; specifically, there is no economically imaginable insurance solution for the brand and image risks that were highlighted. The inability to insure is why strategic redeployment planning, using all the tools of sound project management, is at the core of the mitigating reputational risk (Louisot, 2004).

The Gerald Sandusky child sexual-abuse scandal is a prime example of reputational risk sending a school into crisis mode. There are overwhelming damages beyond the \$3.2 million for initial legal fees (Tsikoudakis, 2012).

One excerpt from Freeh Sporkin and Sullivan, LLP's (2012) *Report of the Special Investigative Counsel Regarding the Actions of The Pennsylvania State University Related to the Child Sexual Abuse Committed by Gerald A. Sandusky* clearly identified how the board is responsible for the school's action or inaction as well as the intended or unintended consequences:

The Board was made aware of the investigations of Sandusky and the fact that senior University officials had testified before the Grand Jury in the investigations. It should have recognized the potential risk to the University community and to the University's



reputation. Instead, the Board, as a governing body, failed to inquire reasonably and to demand detailed information from Spanier. The Board's overconfidence in Spanier's abilities to deal with the crisis, and its complacent attitude, left them unprepared to respond to the November 2011 criminal charges filed against two senior Penn State leaders and a former prominent coach. Finally, the Board's subsequent removal of Paterno as head football coach was poorly handled, as were the Board's communications with the public. (p. 15)

Mike Tsikoudakis (2013) wrote about how the school's purposeful disregard negatively affected its reputation and that, as of October 31, 2013, the school had paid \$25,926,451 in legal fees. The total settlement with the 26 victims was \$59.7 million (Zolkos, 2013).

This literature review included information related to risk management, the evolution of risk management, and the ways risk management has been incorporated into higher education. This information was gathered from a cross section of industries by reviewing various journals, investigating different risk-management associations for both higher education as well as business and industry, and interviewing risk managers in education.

### **Risk Management in Business and Industry**

The risk management process was developed from the insurance and financial sectors. In recent decades, it has gained importance for many organizations, both private and public. This trend to shift risk management is a proactive approach for an entity's protection and growth (Arrow, 2008; Schaufelberger, 2005). As risk management evolves, the main challenge is developing real-time communications across multiple departments to collect and disseminate data in order to make decisions that will holistically impact the organization. This accelerated

communication process will help make real-time adjustments in order to mitigate or to capture opportunities of productive risk (Nielson, Kleffner, & Lee, 2005).

Traditionally, administrators perceive risk management as a tool that can be used to mitigate risk and to ensure security. Because risk management operates in ever-changing environments, it is becoming a proactive process of continuously searching for risks to manage better while pursuing the organization's goals (Chatterjee, Wiseman, Fiegenbaum, & Devers, 2003; Gavin, 2007; Johnson & Swanson, 2007; URMIA, 2007). When it is done well, risk management helps control risks, freeing the resources needed to further the organization's objectives or business plan (Chatterjee et al., 2003; Gavin, 2007; Johnson & Swanson, 2007).

### **Risk-Management Organizational Resources for Businesses and Industries**

Four established organizations commonly serve as risk-management resources for businesses and industries: the Risk Management Association (RMA), the Risk and Information Management Society, Inc. (RIMS), the American Risk and Insurance Association (ARIA), and the Institute of Internal Auditors (IIA). There is some crossover with the services provided by these entities and the populations they serve. In existence for many years, these organizations are established and have grown in size (ARIA, n.d.; IIA, n.d.; RIMS, 2010; RMA, 2010).

The first identified organization is the Risk Management Association (RMA). In a review of its website (RMA, 2010), the organization is identified as a not-for-profit, professional association that is member-driven. Its sole purpose is to develop sound risk-management principles in the financial-services industry. The RMA also assists banking and non-banking institutions with identifying and controlling the effect of credit risk, operational risk, and market risk on their businesses and customers. The RMA achieves these goals through education, research, networking, and leadership opportunities.

Additional information from the Risk Management Association website (RMA, 2010) explains that the original objective was to help bankers make better decisions through the exchange of credit information about borrowers. The RMA's mission has grown since the association's founding in 1914, and currently, the RMA specializes in promoting effective risk-management practices for institutions of all sizes, across the entire financial-services industry. The RMA has grown to represent approximately 18,000 members throughout North America, Europe, and the Asia/Pacific region.

The second organization, the American Risk and Insurance Association (ARIA, n.d.) was founded in 1932; it includes various components, including academics, individual insurance-industry representatives, students, and retirees. Additional information on its website (ARIA, n.d.) emphasizes the research relevant to the operational concerns and functions of insurance professionals, and the website provides resources, information, and support about important insurance issues. The association's goals also include developing and enhancing instruction to risk-management students and to the insurance industry.

ARIA's goal is to be the most widely recognized and highly respected academic risk-management and insurance organization in the world (ARIA, n.d.). Its focus is to provide programs, awards, and services that expand current risk-management and insurance knowledge, by improving academic instruction, as well as to posture its members for future success.

The third organization, established in 1941, is the Institute of Internal Auditors (IIA), an international professional association with its global headquarters in Altamonte Springs, FL. As the internal-audit profession's voice, the IIA is recognized, globally, as an auditing authority. The IIA is an acknowledged leader, a chief advocate, and a principle educator in the area of risk management. The organization's members work in internal auditing, risk management,

governance, internal control, information-technology auditing, education, and security (IIA, n.d.). “The mission of IIA is to provide dynamic leadership for the global profession of internal auditing and to cultivate, promote, and disseminate knowledge and information concerning internal auditing and subjects related thereto” (IIA, n.d.). The website also says that the IIA is an international organization with approximately 170,000 members in 165 countries, providing IIA members with an international network of professionals and a web of knowledge for advice, support, and best-practice guidance about the auditing profession.

The IIA hosts conferences, seminars, onsite training, and e-learning to provide leading-edge audit tools and techniques in order to expand skill sets through industry-leading experts around the world. The IIA also creates knowledge by utilizing blogs, webcasts, surveys, e-newsletters, and the *Internal Auditor* magazine which provides a global perspective about the latest news affecting the profession (IIA, n.d.).

The fourth organization, Risk and Insurance Management Society, Inc. (RIMS), was founded in 1950 and is a not-for-profit organization (RIMS, 2010). Representing more than 3,500 industries, services, nonprofits, charities, and governmental entities, RIMS serves more than 10,000 risk-management professionals around the world (RIMS, 2010). The society also partners with organizations such as the Occupational Safety and Health Administration (OSHA) to establish communication lines between OSHA and the society’s member organizations in order to improve the perception of OSHA, to foster an understanding about the RIMS members’ safety and health needs, and to allow the exchange of technical information and best practices (OSHA Alliance Program, 2005). The Risk and Insurance Management Society, Inc. website (2010) says that many RIMS chapters cultivate alliances in order to sponsor regional conferences to further extend networking and educational opportunities. Members may access continuous

learning opportunities, may utilize a variety of available resources, and may forge valuable relationships with association members. The society also strives to be a leader in all aspects of risk management. Many members provide a variety of services, such as delivering innovative information in a timely fashion, providing educational opportunities, and establishing networking and advocacy groups.

### **Evolution and Theoretical Framework of Risk Management**

In the 1970s, risk management grew from the prior practice of insurance management. In the past, an individual at a company regularly studied the common risks and purchased the appropriate level of insurance coverage for the costs associated with natural disasters, theft, personal injury, workers' compensation, or product liability (Feldhaus & Gaunt, 1995; Nielson et al., 2005; Nocco & Stulz, 2006). Each threat was considered a single event that was manageable by itself. Over time, the risks became more complex, and risk management was more important for process management. Eventually, risk management became vital for organizational planning and forecasting (Heil, 2011; Nocco & Stulz, 2006; Wolf, 2008).

As a discipline, risk management has changed steadily since the early 2000s, largely because risks occur more often and cause more difficulty for businesses' liability (D'Arcy, 2001; Nielson et al., 2005). The past practice of senior administrators and ad-hoc committees using mundane risk-management methods is outdated and unable to effectively manage risk (Beasley & Frigo, 2007; Sokolow, 2004).

Risk is steadily shifting from an individual risk-manager process to a holistic structured framework. This steadily emerging, ERM, constructivist view of risk management builds upon a sound theoretical foundation for participative tactics, offering a more enhanced avenue to negotiate the upside and downside traits of risk than past approaches. ERM is one of the most

productive and proactive methods that is broad enough to incorporate the organization-wide strategic goals that need to be accomplished to achieve the organization's goals (Casualty Actuarial Society, 2003; Koch & Marchewka, 2005).

As this constructionist view continued to emerge and the ERM theoretical framework evolved, businesses began bundling risk-management tools differently in order to build a framework for strategic achievement of the goals through effective ERM (URMIA, 2007; Wolf, 2008). The theoretical framework for ERM is designed so that an organization can infuse the process of strategizing while keeping a focus on risk management during the strategic planning process. The organization's strategy and the risk-management mindset are merged together from that point forward (Beasley & Frigo, 2010). The theory of ERM is to maximize the possibility for an organization to achieve the identified strategic goals while remaining within the stakeholders' risk appetite by applying applicable risk-management activities (Nielson et al., 2005; Wolf, 2008). These risk-management activities are directly accomplished by the organization's board of directors, management, and other personnel who are pertinent to setting the strategic goals. This constructivist process is aimed at helping to identify risks that may affect the process of achieving the strategic goals (AGBUC & NACUBO, 2007; COSO, 2004; Johnson & Swanson, 2007).

The Casualty Actuarial Society (2003) explained that more organizations understand the importance of managing all risks and of qualifying how different risks interact. Enterprise Risk Management is unique as a coordinated, holistic approach to evaluate risk from an entity-wide perspective. If they are not monitored, some risks that seem inconsequential when considered alone become unbalanced and significant when interacting with other risks. This holistic process

is usually managed by a point person who oversees risk for the entity (Sullivan, 2001). These individuals are often identified as the risk manager or chief risk officer (Loghry & Veach, 2009).

The most common ERM frameworks are COSO's Enterprise Risk Management-Integrated Framework; the International Standards Organization's (ISO) Risk Management; a Risk Management Standard by the Federation of European Risk Management Association (FERMA); the Australia/New Zealand Standard; and The Combined Code and Turnbull Guidance. From this grouping of five, there are three frameworks that are common to higher education's risk management (Collier, 2009; URMIA, 2007).

According to URMIA (2007), when starting to develop and implement ERM at colleges or universities, the first thing that must be established is a framework. URMIA (2007) also recommended that, for such a task, there are three frameworks that are suitable for use by colleges and universities: (a) COSO's Enterprise Risk Management-Integrated Framework, (b) the Australia/New Zealand Standard, and (c) ISO's Risk Management.

### **Committee of Sponsoring Organizations of the Treadway Commission (COSO): Risk-Management Integrated Framework**

In 2004, the Committee of Sponsoring Organizations of the Treadway Commission released *Enterprise Risk Management: Integrated Framework, Executive Summary* and identified ERM as a process, which is performed by an entity's board of directors, management, and other personnel, that is applied for strategy setting and across the enterprise; this process was designed to identify potential events that may affect the entity. There is also a need to manage risks, so they remain within the organization's risk appetite, to provide reasonable assurance regarding the achievement of the entity's objectives.

*Enterprise Risk Management: Integrated Framework, Executive Summary* was an outgrowth of the Internal control: Integrated framework (COSO, 1992). This framework, broadly defined by Committee of Sponsoring Organizations of the Treadway Commission (1992), was designed to provide reasonable assurance about achieving objectives in the following categories: effectiveness and efficiency of operations, reliability of financial reporting, and compliance with applicable laws and regulations. The new framework, which consisted of five categories, was better suited to meet the needs of diverse institutions such as colleges and universities.

### **Australia/New Zealand Standard**

This framework was derived, in 1995, from a set of common management-standard issues that surround formalized systems of risk management. The framework also has components that require reporting to the organization's management regarding outcomes of the risk-management system and the achievement of organizational goals (Australian Capital Territory Insurance Authority [ACTIA], 2004). This risk-management framework is accepted as an essential part of healthier management processes. Australia endorsed it as a good business practice that is applicable to both the public and private sectors (Ministry of the Premier and Cabinet, 1999).

The Australia/New Zealand Standard requires a risk manager to evaluate activities, processes, and functions in a systematic, logical way. Standards Australia (2004) illustrates that risk management begins with identifying an area of potential risk, analyzing and assigning it, treating it, monitoring it, and making sure it is being communicated in order to minimize potential losses while maximizing opportunities. Risk management is not only about avoiding risk, but it is also about identifying opportunities. The benefits of risk management may include



consistency and effectiveness of a delivered service or product, fewer unexpected expenditures, and transparency with the managing and decision-making processes.

Once again, these guidelines require the risk manager to following a systematic, structured approach, making the approach more adaptive to agencies with a broader management framework. Risk management must fully envelop all areas of an organization, including processes, strategies, and operations, in order to be completely effective (Standards Australia, 2004).

### **ISO Risk Management**

The International Standards Organization (ISO) is an entity that establishes standards that are used around the world. The ISO established generic guidelines based on principles and implementation of common risk-management techniques. These guidelines can be applied in most situations. This international standard describes how an organization can interpret the specific context in which it implements risk management. The ISO provides a generic approach and guidelines that are essential for implementing key components to manage risk in a credible and transparent manner for various settings and contexts (ISO, 2009; Shortreed, 2010).

The generic qualities of the international standard are that it is applicable to private and public associations, individuals, or groups. Therefore, it is generic enough and not specific to any industry sector. The main attraction is that the international standard's risk-management framework provides a common-enough approach to support organizations in order to achieve their objectives by following their strategic initiatives, operation missions, processes, and projects (ISO, 2009; Shortreed, 2010).

### **History of Risk Management in Higher Education**

Although risk management began in the insurance and financial industries, it has migrated into various industries and takes on a variety of forms that best suit those industries' needs. The most common form uses various processes to communicate risk, to assess risk, to prioritize risk, to address risk, and then to evaluate the outcome of actions taken to deal with those risks (Sokolow, 2004). The late 1960s and early 1970s were a time of social revolution and protest at many American college and university campuses. Students spoke out and protested more aggressively than in the past (Chambers, 1999). Many protests were constructive, but at times, the protests became destructive, violent, and deadly. Regardless of the cause, these protests almost always cost an institution financially. The institution needed resources for repair, cleanup, and protection of both the protest participants and non-participants. For example, the cost of police action and other government services at the University of California, Berkley between 1965 and 1966 was \$137,554.00, which translates into \$925,576.00 in 2010 dollars (Williamson & Samuel, 2010).

In a phone conversation on February 8, 2011, with A. Canfora, one of the 13 students who were shot on May 4, 1970, at Kent State University, he provided information about how national student protests based on events that occurred at Kent State shut down more than 500 colleges and universities, and by the end of May 1970, over 900 schools across the nation were closed. Across the United States, approximately 80% of colleges and universities experienced some sort of protest, causing losses for the institutions as more than 4 million students went on strike.

In the *The Oxford Companion to American Military History*, Chambers (1999) identified that, after the incident at Kent State, colleges and universities made an effort to insure themselves against damage to property and contacted their insurance carriers; during those

unsettled times, the only available insurance was very expensive and provided little protection against such events. Many colleges and universities had increased fire and liability insurance premiums; the institutions saw their deductibles quadruple. Insurance rates increased on everything, including married-student housing, investment properties, and gift properties.

In the late 1970s, higher-education institutions experienced a substantial increase in lawsuits resulting from some form of personal injury. The four most common methods of risk management at that time were risk avoidance, risk control, risk transfer, and risk retention (Adams & Hall, 1976). Risk avoidance is an effort to limit risk by eliminating programs or activities or by not creating activities that involve risk (Nielson et al., 2005).

In Kaplin and Lee's *The Law of Higher Education* (1995), they stated:

The most certain method for managing a known exposure to liability is risk avoidance--the elimination of the behavior, condition, or program that is the source of the risk. This method is often not realistic, however, since it could require institutions to forgo activities important to their educational mission. (p. 137)

Furthermore, Kaplin and Lee (1995) discussed how risk transfer may assume one of several methods of shifting risk to other parties, including insurance, indemnification agreements, and releases and waivers. Risk retention involves self-insurance as a means to prepare for the financial impact of legal liability.

In a phone conversation on June 20, 2011, with R. Adair, Director of Risk Management at Colorado Mountain College (CMC) in Glenwood Springs, Colorado, she acknowledged that the four most common methods of risk management are still frequently used as institutions begin implementing risk-management programs for the first time. The challenge that CMC faces is not so much a matter of "if," but "when" and at what level of severity. CMC prepares for a broad

spectrum of risks at different levels of severity, such as typical outdoor sports injuries, snakebites, or avalanches. In a different area of managing the cost associated with risk management, CMC is addressing risk associated with transportation, utilizing 15-passenger vans, and the training required to use these vehicles. Some colleges use risk-retention tools, such as self-insuring transportation up to a set dollar amount, and then purchase insurance over that dollar amount. The combined process of splitting the payout cost is a fiscally responsible method for colleges and universities that set aside funds into consortium pools for such risks.

R. Adair (personal communication, June 20, 2011) also noted that there are other risk-control tools which are used on a seasonal basis. An example of a seasonal risk-control tool is measuring the speed and severity of the spring thaw. This information is utilized to properly address different safety measures that are required for whitewater rafting. Such extreme programs have a level of risk awareness within them due to the obvious nature of the activity.

In a phone interview on June 21, 2011, K. Joiner, Director of Risk Management for Minnesota State Colleges and Universities (MnSCU), identified how MnSCU is focusing on risk control for fleet-safety guidelines. MnSCU requires all people using state vehicles to submit a Vehicle Use Agreement and Consent to Obtain Driving Record(s). The obtained information determines people's eligibility to drive state-owned or leased vehicles for system activities. Another area with increased risk control is medical professional liability for students who are conducting internships or practicums in the field. The MnSCU system purchases insurance for all state colleges and universities, removing the burden for each institution to purchase insurance independently.

In June 2011, the possibility of a shutdown for the state of Minnesota heightened the level of risk-management activity for MnSCU. One area of high risk and loss that was addressed

was facility protection for new construction and renovation. One activity involved identifying the construction phase a project would be in when contractors left the site during the state shutdown. This risk assessment was required so that proper protection was in place to shield the project from elements such as rain or wind. Another area of concern was identifying what services would be available for students who were on health-insurance plans through the colleges and received services from campus clinics. Risk-management activities involved finding health-service providers or networks that would serve students for the same cost (K. Joiner, personal communication, June 21, 2011).

According to Janice M. Abraham, President and Chief Executive Officer of United Educators Insurance, “Risk management is not the elimination of risk; rather, it is dealing with risk in the most effective and sensible manner while supporting the mission of colleges and universities” (1999, p. 83).

The Tufts University Department of Public and Environmental Safety (2011) identified its risk management and mission statement to efficiently and effectively manage risk at the university. To ensure best practices, Tufts University also utilized a deliberate method to share risk and internal knowledge across multiple departments and functions. Through this process, the university effectively integrated a culture for all its activities in order to manage risk effectively. Tufts University explained that this strategy helped when it was time to make risk-management decisions based on goals that were aligned with the university’s risk tolerance and business strategy in order to obtain the best possible outcome.

Additionally, more organizations have come to fully recognize the importance and priority of managing not only familiar, easily quantifiable risks, but also all risks and the inherent or deliberate interactions between those risks. Risks that seem insignificant by themselves have a

strong potential to cause great harm should they end up interacting with other events and conditions (Casualty Actuarial Society, 2003).

### **Resources for Risk Management in Higher Education**

Within the world of higher-education risk management, three organizations offer resources: the Association of College and University Auditors (ACUA), the National Association of College and University Business Officers (NACUBO), and the University Risk Management Insurance Association (URMIA). The ACUA was established in 1958. The official ACUA (n.d.) website provided the following information: The ACUA is comprised of international professionals who serve institutions of higher education across the globe. The association provides its members with a collegial forum to exchange knowledge and to generate new ideas. The ACUA's goal is to increase members' knowledge in the areas of regulatory compliance, risk management in higher education, and auditing functions.

The ACUA hosts annual conferences that offer workshops, educational sessions, roundtable discussions, and evenings devoted to networking opportunities. One valuable tool provided by the ACUA is a listserv with over a 1,000 participating individuals who offer dozens of informational constructs daily. Also, the ACUA website indicates that members can receive information that will help them to advance their auditing capabilities. The ACUA is a well-recognized resource for higher education's risk-management leaders (ACUA, 2010).

The National Association of College and University Business Officers (NACUBO) was formed in 1962; it has characteristics and goals that are similar to the ACUA (NACUBO, n.d.). A summary of its official website provided the following information about the NACUBO: The membership now includes more than 2,500 colleges; universities; and higher-education institutions across the country and around the world. The NACUBO primarily focuses on

providing support to college financial and business officers. The NACUBO's mission is to further the economic viability and business practices of higher-education institutions as they strive to follow their academic missions.

NACUBO members can also receive professional-development information as well as publications, information about conducting surveys and internal networking, benchmarking data, and other resources and services. The NACUBO (n.d.) website explained that the organization circulates news and updates from policy groups and the federal government.

The University Risk Management and Insurance Association's official website provided the following facts (URMIA, n.d.). The organization was established in 1966 and currently has 1,450 members. Its mission is to advance the discipline of risk management in higher education. The association is a source of innovative and effective risk-management concepts that are tailored to the needs of higher education. URMIA is built upon the assumption that the higher-education institutions' missions can best be achieved by protecting reputations and resources, both human and financial, by incorporating sound risk-management practices for all aspects of the institutions' operations (Emerson, 2010). URMIA seeks to provide colleges and universities with the best and most-complete risk-management tools and information available. The association also offers professional development for risk management and strives to advance the risk-management discipline in higher education (Emerson, 2010).

URMIA accomplishes its goals by providing an array of resources, including access to assessment templates, white papers, articles, and information about the current risk-management trends. The association hosts regional and national conferences, offering seminars, roundtable discussions, and networking opportunities. URMIA also provides an open list of risk managers, identifying their areas of expertise within the discipline of risk management and assisting with

the location of peers when working to establish best practices. The organization continues to provide opportunities for members to subscribe to a variety of newsletters and journals (Emerson, 2010).

### **Limitations of the Study**

Some limitations exist and could affect the results' value. The survey distribution was limited to administrators at two-year colleges in Minnesota, Wisconsin, and Michigan. Some respondents may not fully understand or think of themselves as people who manage risk at their level. Their lack of understanding could have influenced their interpretation of the questions and caused some of the data to be skewed.

### **Chapter Summary**

This chapter explored research regarding risk management in business and industry and how it has evolved over time. The study also brought to light the need for the practices to continue to migrate and be infused into the higher education. The chapter introduced the primary resources for assistance in risk management for business and industry, as well as those that have been established for higher education. The chapter also informed the reader about the five classification of risk that are prevalent in all environments, whether business and industry or higher education. The researcher felt this information is extremely important in order for the reader to achieve a fully developed understanding to better help them appreciate the risk taxonomy developed in the study.



## **CHAPTER 3. METHODS AND PROCEDURES**

The purpose of the study was to organize the identified risks into one of the five classifications in order to establish a taxonomy that was created by peers and to measure the variances in the risk level at two-year colleges.

### **Research Questions and Conceptual Framework**

The following research questions guided the study:

1. How do two-year college administrators classify various risks into risk taxonomy?
2. Are there differences among the levels of perceived risk based on the level of administrative position held?
3. What new risks are surfacing at two-year colleges?
4. Are there differences among the levels of perceived risk based on the respondents' demographics?

### **Literature Review**

A review of literature was conducted to determine different risks that are common for U.S. colleges and universities as well as to ascertain if similar research already existed. This information, along with adjusted standards from the Carnegie classification system for institutions of higher education (Carnegie Foundation, 2010), factored into how the data-collection tool was assembled.

### **Population and Sampling Procedures**

The population for this survey was higher-education leaders at two-year colleges who held administrative or management positions, such as president, risk manager, vice president, CFO, CEO, provost, executive director, executive business manager, dean, director, business manager, department chair, program coordinator, or department head, in Michigan, Wisconsin,

and Minnesota. The survey respondents self-identified the location of their college, their level of administrative ranking, and their years of higher-education experience at their current or a similar position. Administrators who participated in the sample included 806 people from 30 colleges in Michigan, 311 people from 27 colleges in Wisconsin, and 190 people from 30 colleges in Minnesota, creating a total sample of 1,307 individuals.

### **Instrumentation**

The tool was designed after a thorough literature review was conducted to generate an inventory of different risks that are common to higher-education institutions across the United States. This information, along with the standards derived from the Carnegie classification system for institutions of higher education (Carnegie Foundation, n.d.), factored into how the data-collection tool was assembled. The tool consisted of three self-identifying questions: (a) the level of administrative position held, (b) the college's location, and (c) the administrators' years of experience in higher education at their current or a similar position. The tool also contained 35 survey questions and one open-ended question that asked participants to list what new risks were surfacing at two-year colleges. The 35 survey questions presented one risk at a time and required the respondent to select the classification that best identified that risk. The classification options were compliance, financial, operational, reputational, and strategic. The tool also had respondents identify the risk level on a Likert-type scale which included the following options: 1, *not a priority*; 2, *low priority*; 3, *medium priority*; 4, *high priority*; and 5, *essential priority*.

The researcher developed the informed consent and confidentiality statements, and he submitted a request for Institutional Review Board (IRB) review and approval (Appendix A). All the protocols used for this study were reviewed and approved by the IRB on April 29, 2016.

The tool was pilot tested with a population of 20 individuals to ensure usability. Feedback from the pilot test identified the tool as easy to navigate but concluded that it contained too many risks to assess. Based on this feedback, the number of risks to assess was reduced from 50 to 35. While it was acknowledged that not all risks can be anticipated, the tool also contained an option for the respondents to list emerging risks.

### **Emerging-Risk Consensus Process**

Further review of the emerging risks submitted by the participants was done by having five college administrators from Michigan move through a four-step process of classifying and ranking the risks. Prior to starting this exercise, all the submitted risks were printed on 3" x 5" note cards, and the five risk classifications and their descriptions were printed on 5" x 8" note cards. The process consisted of the following four steps which were derived from Bickman (1976):

1. The cards were placed, face up, on the table so that they could be read by the five participants.
2. The participants were tasked with reviewing the risks and placing the threats in one of the five risk classifications.
3. Then, the participants developed an agreement score.
  - a. Agreement scores were achieved by identifying the number of the participants who were in agreement. For an item to be classified as a specific risk, it required at least three of the five participants to agree. This was a 3/5 agreement score. If fewer than three people agreed, then there was a discussion to either reclassify the risk or to remove the risk.

4. After all the risks were placed into a classification, the final step required the participants to rank order the risks for each classification.
  - a. After much discussion among the participants, they decided that they could not come to consensus for rank ordering all the risks. They then decided to identify the top three and bottom three risks for each risk classification. The risks were then grouped into high risk (the top three risks), medium risk (the ones in between the top three risks and the bottom three risks), and low risk (the bottom three risks)

The full listing of the risks is located in Appendix D. The findings for the classifications, agreement, and risk levels are in Tables 13-17. A copy of the survey is available in Appendix C.

### **Data Collection**

The data-collection process was conducted through an e-mail distribution for the survey that linked recipients to NDSU Qualtrics. An initial email was sent to the participants and informed them that they would receive a survey to help address issues of risk management at two-year colleges. The survey link was emailed two days later. The email also contained the Survey Consent Statement which provided the following information:

1. The data-collection process was anonymous.
2. There was a Confidentiality of Records: The data-collection process did not collect information that would identify individuals.
3. Participation clause: Participation was voluntary.
4. Participants could choose not to participate or to quit participating at any time without penalty or a loss of benefits to which they were already entitled.

Recipients also received survey instructions and the web link to the survey. During the next 11 days, 3 follow-up e-mails were sent to individuals who had not responded.

### **Variables**

There were two independent variables: administrative classification and demographics. There were two dependent variables: risk classification and risk level. This section lists the variables for each question.

Research question 1: How do two-year college administrators classify various risks into a risk taxonomy? The independent variable for this question was the level of administrative classification. The dependent variable for the question was the risk classifications that were identified for each risk. Table 1 describes the relationship between the variables and the survey instrument.

Research question 2: Are there differences among the levels of perceived risk based on the level of administrative position held? The independent variable for this question was the level of administrative position held. The dependent variable for this question was the risk level.

Research question 3: What new risks are surfacing at two-year colleges? This open-ended question did not have any variables.

Research question 4: Are there differences among the levels of perceived risk based on the respondents' demographics? The independent variable for this question was the demographics for each respondent. The dependent variable was the state which the respondent represented.

Table 1

*Relationships Between the Variables and Survey Items*

Variable Name	Description of Items on the Survey
Independent Variable:	
Administrative Classification	Level of administrative classification held
Demographics	State which the respondent is representing: Michigan, Minnesota, or Wisconsin
Dependent Variable:	
Risk Classification	Measures how administrators classify different risks
Risk Level	Measures how administrators identify the risk level

*Note. Variable Name identifies the variable being discussed. Description of Items on the Survey relates to classifications for responses on the survey tool.*

**Data Analysis**

The study’s research questions are listed and the methods to answer the questions are explained in the following sections.

**Research Question 1**

How do two-year college administrators classify various risks into a risk taxonomy?

Question 1 had one independent variable and one dependent variable. The independent variable was administrative classification. The dependent variable was risk classification. All risk-taxonomy tables were created based on the response rate for each question. All questions had P = primary risk, and some had S = secondary risk. The P = primary risk was based on the risk classification that obtained the highest percentage of responses (i.e., “Inability to maintain quality workforce” was identified by 61.22% of the respondents as being an *operational risk*). The S = secondary risk was based on any risk that was identified in the first quartile or had 25%

or more of the responses while not being the highest response for the grouping. Not all questions had diverse response rates in order to have a secondary risk.

### **Research Question 2**

Are there differences among the levels of perceived risk based on the level of administrative position held?

Question 2 had one independent variable and one dependent variable. The independent variable was the level of administrative position held. The dependent variable was level of perceived risk. A one-way analysis of variance (ANOVA) at  $\alpha = .05$  and at  $\alpha = .10$  was used to determine if there were significant differences for the levels of perceived risk based on the person's administrative position. Administrators were compared by state of employment. An ANOVA was used to determine the differences among groups.

A Cronbach's Alpha was run to determine the reliability between the Level 1 administrators and Level 2 administrators for 35 questions associated with risk classifications and risk levels. The Cronbach's Alpha produced a reliability score of .923. The closer the Cronbach's Alpha reliability score is to 1, the higher the reliability is for the questions.

### **Research Question 3**

What new risks are surfacing at two-year colleges?

The data were collected through an open-ended response process. Participants were asked to list different risks that they perceived to be surfacing in their environment. A methodology used to develop consensus for the emerging risks that were collected with the tool was derived from Bickman (1976). Five subject-matter experts sorted the risks, classified the risks, and then ranked the risks for each of the five classifications.

#### **Research Question 4**

Are there differences among the levels of perceived risk based on the participants' demographics?

Question 4 had one independent variable and three dependent variables. The independent variable was the each respondent's demographics. The dependent variable was the risk level. Each respondent had the following states from which to choose: Michigan, Minnesota, or Wisconsin. An ANOVA at  $\alpha = .05$  was used to determine if there were significant differences for the levels of perceived risk based on the respondents' demographics.

#### **Chapter Summary**

Chapter 3 outlined the Methodology and Procedures used to execute the study. The chapter detailed the Research Questions and Conceptual Framework, Population Sampling, Instrumentation, Emerging-Risk Consensus Process, Data Collection, Variables, and Data Analysis.



## **CHAPTER 4. FINDINGS**

The study's purpose was to organize 35 identified risks into one of the five classifications in order to establish a taxonomy that was created by peers and to measure the variances in the risk level at two-year colleges.

### **Research Questions and Conceptual Framework**

The following research questions guided the study:

1. How do two-year college administrators classify various risks into risk taxonomy?
2. Are there differences among the levels of perceived risk based on the level of administrative position held?
3. What new risks are surfacing at two-year colleges?
4. Are there differences among the levels of perceived risk based on the respondents' demographics?

### **Descriptive Statistics**

The survey was sent to 806 administrators in Michigan, 311 in Wisconsin, and 190 in Minnesota. The total distribution was 1,307.

The survey was redistributed a total of three times in an effort to obtain the highest response rate possible. When analyzing the data, it became evident that, of the 82 individuals who started the survey, only 49 people completed questions beyond the first page. This factor changed the usable responses for Level 1 administrators from 16 to 8 and Level 2 administrators from 66 to 41. The first page of the survey collected three pieces of data: administrative level, state in which the college resides, and years of experience. The researcher believed this data to be rich for an exploratory study and a first step with a powerful commentary that can lead to future studies at four-year teaching schools and research schools. This study's value can already

be seen in the findings for the two-year schools which have similar missions as the four-year teaching institutions. Schools can begin looking at these findings as benchmarks to help identify best practices in order to establish a healthy risk appetite. This work can help prevent loss and, at the same time, capitalize on potential missed opportunities.

### **Research Question 1**

How do two-year college administrators classify various risks into risk taxonomy?

A risk-taxonomy table was established based on the response rate for each question. Most questions had a P = primary risk and an S = secondary risk. The P = primary risk was based on the highest response rate. The S = secondary risk was based on quartile response rates. Tables 2-6 combine data from both the Level 1 and Level 2 administrators.

Table 2 displays the taxonomy of primary and secondary risks for compliance risk based on the combined responses from the Level 1 and Level 2 administrators. The P = primary risk was based on the risk classification that obtained the highest percentage of responses (i.e., “Family Educational Rights and Privacy Act (FERPA)” was identified as a compliance risk by 89.80% of the respondents). The S = secondary risk was based on any risk that was identified in the first quartile, having 25% or more of the responses, and was not the highest response in the grouping. Due to the low response rate, there were not enough Level 1 administrators to statistically determine if there was a difference taxonomy based on the person’s administrative position.

It is interesting to see the findings: only 65.31% of administrators who responded to the survey identified “inability to maintaining Higher Learning Commission (HLC) requirements” as a compliance risk. The Higher Learning Commission (2017) explained that, in order for many academic programs to meet Title IV requirements and to receive federal funding or qualify for

federal financial aid, they must be in compliance with both the U.S. Department of Education and the HLC. Without maintaining these compliance requirements, many programs at the two-year schools would lose funding or no longer qualify for federal financial aid. This loss could be overwhelming to the schools and students.

Table 2

*Taxonomies of Risk Based on the Responses from Level 1 Administrators and Level 2 Administrators, Ranked as a Primary Risk or Secondary Risk, and Classified as Compliance Risk from the Highest Response Rate to the Lowest (N = 49)*

Compliance Risk	% Response	Classification
7. Family Educational Rights and Privacy Act (FERPA)	89.80%	P
27. Occupational Safety and Health Administration (OSHA)	89.80%	P
10. Health Insurance Portability and Accountability Act (HIPAA)	87.76%	P
11. Inability to maintaining Higher Learning Commission (HLC) requirements	65.31%	P
19. Lack of effective safety personal	34.69%	S
31. Unfunded mandates	26.53%	S

*Note:* % Response is the percentage of respondents who selected this classification for the identified risk. Classification is Primary risk (P) or Secondary risk (S).

Table 3 displays the taxonomy of primary and secondary risks for Financial Risk based on the combined responses from the Level 1 and Level 2 administrators. The P = Primary risk was based on the risk classification that obtained the highest percentage of responses (i.e., “Inadequate cash flow” was identified as a financial risk by 89.80% of the respondents). The S = secondary risk was based on any risk that was identified in the first quartile, having 25% or more of the responses, and was not the highest response for the grouping. Due to the low response rate, there were not enough Level 1 administrators to statistically determine if there was a difference taxonomy based on the person’s administrative position.

It is interesting to notice that only 48.98% of the responding administrators identified “Inaccurate student enrollment projections” as a financial risk. A majority of the operational funding for two-year colleges is driven by students’ tuition dollars. A budget that is built on an inaccurate student enrollment could have a negative financial effect on the school, creating a budget shortfall or missed opportunities.

Table 3

*Taxonomies of Risk Based on the Responses from the Level 1 and Level 2 Administrators, Ranked as Primary Risk or Secondary Risk, and Classified as Financial Risk from the Highest Response Rate to the Lowest (N = 49)*

Financial Risk	% Response	Classification
15. Inadequate cash flow	89.80%	P
22. Inadequate fiscal reserves	89.80%	P
2. Construction cost overrun	87.76%	P
32. Wage control	85.71%	P
16. Increase cost in utilities	79.59%	P
31. Unfunded mandates	63.27%	P
34. Inaccurate student enrollment projections	48.98%	P
35. Ineffective foundation	44.90%	P
4. Deferred building maintenance	40.82%	P
9. Fluctuation in customer demand	30.61%	S
8. Inadequate Financial Aid for students	28.57%	P

*Note:* % Response is the percentage of respondents who selected this classification for the identified risk. Classification is primary risk (P) or secondary risk (S).

Table 4 displays the taxonomy of primary and secondary risk for Operational Risk based on the combined responses for the Level 1 and Level 2 administrators. The P = primary risk was based on the risk classification that obtained the highest percentage of responses (i.e., “Misaligned organizational structure” was identified as an operational risk by 69.39% of the respondents). The S = secondary risk was based on any risk that was identified in the first quartile, having 25% or more of the responses, and was not the highest response in the grouping.

Due to the low response rate, there were not enough Level 1 administrators to statistically determine if there was a difference taxonomy based on the person’s administrative position.

When reviewing the percentage of individuals who responded and classified the risks as operational risk, it could be viewed that administrators have a challenging time clearly defining the operational risks. The highest percentage response was 69.39%. Only 2 of the 15 risks had a percentage response over 61%.

Table 4

*Taxonomies of Risk Based on the Responses from the Level 1 and Level 2 Administrators, Ranked as Primary Risk or Secondary Risk, and Classified as Operational Risk from the Highest Response Rate to the Lowest (N = 49)*

Operational Risk	% Response	Classification
24. Misaligned organizational structure	69.39%	P
1. Inability to maintain quality workforce	61.22%	P
3. Continuity of operations plan / Emergency operations plan	59.18%	P
13. Improper alignment of student services	57.14%	P
33. Inability to stabilize or maintain an administrative leadership team	57.14%	P
28. Poor succession planning	51.02%	P
17. Ineffective security systems	46.94%	P
18. Lack of effective resources allocation	46.94%	P
19. Lack of effective safety personnel	38.78%	P
6. Failure to keep pace with technology	36.73%	P
4. Deferred building maintenance	34.69%	S
34. Inaccurate student enrollment projections	32.65%	S
8. Inadequate Financial Aid for students	28.57%	P
30. Unexpected shift in student demands	28.57%	S
29. Safe and friendly environment	26.53%	S

*Note:* % Response is the percentage of respondents who selected this classification for the identified risk. Classification is primary risk (P) or secondary risk (S).

Table 5 displays the taxonomy of primary and secondary risk for reputational risk based on the combined responses for the Level 1 and Level 2 administrators. The P = primary risk was based on the risk classification that obtained the highest percentage of responses (i.e., “Strained

relations within the community - negative town / gown relationships” was identified as a reputational risk by 91.84% of the respondents.). The S = secondary risk was based on any risk that was identified in the first quartile, having 25% or more of the responses, and was not the highest response for the grouping. Due to the low response rate, there were not enough Level 1 administrators to statistically determine if there was a difference taxonomy based on the person’s administrative position.

It was interesting to notice that 91.84% of the administrators who responded to the survey identified “strained relations within the community - negative town / gown relationships” as a reputational risk. Lewis (2004) illustrated those residents who live near campuses in college towns view higher-education institutions as 800-pound gorillas. There is a symbiotic love-hate relationship that exists. A campus provides opportunities for the community and can be a source of pride. At the same time, residents may find the students’ behavior to be disruptive. There may be ongoing challenges with parking, noise complaints, and other negative behaviors. At times, the municipalities’ resources can be strained by a non-tax-paying entity. Accordingly, colleges must look beyond their borders and coordinate their planning with municipal officials and neighbors. Lewis also believed that schools need to work with the community when creating master campus plans and during the development of new physical structures that can change the community’s landscape.

Table 5

*Taxonomies of Risk Based on the Responses from the Level 1 and Level 2 Administrators, Ranked as Primary Risk or Secondary Risk, and Classified as Reputational Risk from the Highest Response Rate to the Lowest (N = 49)*

Reputational Risk	% Response	Classification
25. Strained relations within the community - negative town / gown relationships	91.84%	P
29. Safe and friendly environment	55.10%	P
14. Inability to meet market demand	40.82%	P
26. Outdated academic programs	38.78%	P
6. Failure to keep pace with technology	28.57%	S
23. Misaligned marketing strategies	28.57%	S

*Note:* % Response is the percentage of respondents who selected this classification for the identified risk. Classification is primary risk (P) or secondary risk (S).

Table 6 displays the taxonomy of primary and secondary risk for strategic risk based the combined responses for the Level 1 and Level 2 administrators. The P = primary risk was based on the risk classification that obtained the highest percentage of responses (i.e., “Lack of vision, direction, and focus” was identified as a strategic risk by 85.71% of the respondents.). The S = secondary risk was based on any risk that was identified in the first quartile, having 25% or more of the responses, and was not the highest response for the grouping. Due to the low response rate, there were not enough Level 1 administrators to statistically determine if there was a difference taxonomy based on the person’s administrative position.

It was not a surprise to find that “lack of vision, direction, and focus” had the highest percentage of respondents (85.71%) for the strategic risk classification. Setting the institution’s vision and direction is a critical responsibility for administrators at a variety of levels. According to Neumann and Neumann (2015), seeing the college’s future and capitalizing on specific opportunities can transform the institution’s fate and can conceptually change the long-term path for growth.

Table 6

*Taxonomies of Risk Based on the Responses from the Level 1 and Level 2 Administrators, Ranked as Primary Risk or Secondary Risk, and Classified as Strategic Risk from the Highest Response Rate to the Lowest (N = 49)*

Strategic Risk	% Response	Classification
21. Lack of vision, direction, and focus	85.71%	P
20. Lack of external partnership development	57.14%	P
5. Delay in time to market for new programs	53.06%	P
12. Improper alignment of programs for target market	48.98%	P
28. Poor succession planning	44.90%	S
30. Unexpected shift in student demands	44.90%	P
14. Inability to meet market demand	40.82%	P
9. Fluctuation in customer demand	38.78%	P
26. Outdated academic programs	38.78%	P
33. Inability to stabilize or maintain an administrative leadership team	38.78%	S
23. Misaligned marketing strategies	36.73%	P
6. Failure to keep pace with technology	32.65%	S
18. Lack of effective resources allocation	28.57%	S
24. Misaligned organizational structure	28.57%	S
35. Ineffective foundation	28.57%	S

*Note:* % Response is the percentage of respondents who selected this classification for the identified risk. Classification is primary risk (P) or secondary risk (S).

## **Research Question 2**

Are there differences among the levels of perceived risk based on the person's administrative position?

A one-way ANOVA was run, using Statistical Package for the Social Sciences (SPSS), to determine if there were significant differences between Level 1 and Level 2 administrators.

Based on the test, there were four questions that had significant differences at  $\alpha = .05$ . Of these questions with a .05 significance, one was a compliance risk; one was a financial risk; one was a reputational risk; and one was both an operational and financial risk. Additionally, there were three questions that had significant differences at  $\alpha = .10$ . Of these questions with a .10



significance, one was a compliance risk; one was an operational risk; and one was both a financial and strategic risk.

It must be noted that the response rate of eight participants for the Level 1 administrators did not indicate this statement as true; there were not enough responses from Level 1 administrators to run an adequate comparison of means. A preliminary one-way ANOVA, run using SPSS, indicated that seven items had significant differences, but the low response rate for the Level 1 administrators increased the probability of a type I error. A Mann-Whitney test was also run to provide a comparative analysis.

Table 7 shows the compliance risk classification. Level 2 administrators identified that there was a higher risk for item #7, Family Educational Rights and Privacy Act (FERPA), at  $\alpha = .05$  and for item #10, Health Insurance Portability and Accountability Act (HIPAA), at  $\alpha = .10$ . For item #7 (FERPA), the mode for the Level 1 administrators was a medium priority, and the mode for the Level 2 administrators was both high priority and essential priority. For item #10 (HIPAA), the mode for the Level 1 administrators was not a priority, and the mode for the Level 2 administrators was both low priority and medium priority. Additionally, Level 1 administrators did not score higher at  $\alpha = .05$  or  $\alpha = .10$  for any of the questions.

Table 7 shows the compliance risk classification. Level 2 administrators identified that there was a higher risk for item #7, Family Educational Rights and Privacy Act (FERPA), at  $\alpha = .05$  and for item #10, Health Insurance Portability and Accountability Act (HIPAA), at  $\alpha = .10$ . For item #7 (FERPA), the mode for the Level 1 administrators was a medium priority, and the mode for the Level 2 administrators was both high priority and essential priority. For item #10 (HIPAA), the mode for the Level 1 administrators was not a priority, and the mode for the Level

2 administrators was both low priority and medium priority. Additionally, Level 1 administrators did not score higher at  $\alpha = .05$  or  $\alpha = .10$  for any of the questions.

Table 7 shows the compliance risk classification. Level 2 administrators identified that there was a higher risk for item #7, Family Educational Rights and Privacy Act (FERPA), at  $\alpha = .05$  and for item #10, Health Insurance Portability and Accountability Act (HIPAA), at  $\alpha = .10$ . For item #7 (FERPA), the mode for the Level 1 administrators was a medium priority, and the mode for the Level 2 administrators was both high priority and essential priority. For item #10 (HIPAA), the mode for the Level 1 administrators was not a priority, and the mode for the Level 2 administrators was both low priority and medium priority. Additionally, Level 1 administrators did not score higher at  $\alpha = .05$  or  $\alpha = .10$  for any of the questions.

Table 7

*Descriptive Statistics and One-Way ANOVA Results in Analyzing Difference Between the Mean of Standard Deviation at  $\alpha = .05$  and  $\alpha = .10$  Among Compliance Risk Based on Responses of Level 1 Administrators and Level 2 Administrators Significant. \* = Mean Differences at  $\alpha = .05$ . and \*\* = Mean Differences at  $\alpha = .10$  (N = 49)*

		Compliance Risk										
		N	Mean	Std.	N	Mean	Std.	N	Mean	Std.		
7. Family Educational Rights and Privacy Act (FERPA)*	L1	8	3.00	1.414	L2	41	3.85	0.989	ttl.	49	3.71	1.099
27. Occupational Safety and Health Administration (OSHA)	L1	8	3.13	1.126	L2	41	3.34	1.132	ttl.	49	3.31	1.122
10. Health Insurance Portability and Accountability Act (HIPAA)**	L1	8	2.13	1.356	L2	41	3.07	1.292	ttl.	49	2.92	1.336
11. Inability to maintaining Higher Learning Commission (HLC) requirements	L1	8	3.63	1.302	L2	41	4.07	0.959	ttl.	49	4.00	1.021
19. Lack of effective safety personnel	L1	8	3.13	1.126	L2	41	3.12	1.053	ttl.	49	3.12	1.053
31. Unfunded mandates	L1	8	3.75	0.463	L2	41	3.41	1.048	ttl.	49	3.47	0.981

*Note:* L1 = Level 1 administrators. L2 = Level 2 administrators. N = number of experts responding to the statement. Mean = calculated average for statement. Std. = calculated Standard Deviation for statement. ttl = total. \* = significant Mean differences at  $\alpha = .05$ . \*\* = significant Mean difference at  $\alpha = .10$ .

Table 8 shows the financial risk classification. Level 2 administrators identified a higher risk for item #16, Increase cost in utilities, and #34, Inaccurate student enrollment projections, at  $\alpha = .05$  and for item #9, Fluctuation in customer demand, at  $\alpha = .10$ . For item #16, Increase cost in utilities, the mode for Level 1 administrators was not a priority, and the mode for Level 2 administrators was low priority. For item #34, Inaccurate student enrollment projections, the mode for Level 1 administrators was both low priority and medium priority, and the mode for Level 2 administrators was high priority. For item #9, Fluctuation in customer demand, the mode for Level 1 administrators was equally distributed between low priority and essential priority, and the mode for Level 2 administrators was high priority. Additionally, Level 1 administrators did not score higher at  $\alpha = .05$  or  $\alpha = .10$  for any of the questions.

Table 8

*Descriptive Statistics and One-way ANOVA Results in Analyzing Difference Between the Mean of Standard Deviation at  $\alpha = .05$  and  $\alpha = .10$  Among Financial Risk Based on Responses of Level 1 Administrators and Level 2 Administrators Significant. \* = Mean Differences at  $\alpha = .05$ . and \*\* = Mean Differences at  $\alpha = .10$  ( $N = 49$ )*

<b>Financial Risk</b>												
		N	Mean	Std.	N	Mean	Std.		N	Mean	Std.	
15. Inadequate cash flow	L1	8	3.38	1.408	L2	41	3.68	1.059	ttl.	49	3.63	1.112
22. Inadequate fiscal reserves	L1	8	3.75	1.035	L2	41	3.66	1.063	ttl.	49	3.67	1.049
2. Construction cost overrun	L1	8	2.75	0.886	L2	41	2.83	0.738	ttl.	49	2.82	0.755
32. Wage control	L1	8	3.25	0.886	L2	41	3.12	0.954	ttl.	49	3.14	0.935
16. Increase cost in utilities*	L1	8	2.13	1.126	L2	41	2.88	0.954	ttl.	49	2.76	1.011
31. Unfunded mandates	L1	8	3.75	0.463	L2	41	3.41	1.048	ttl.	49	3.47	0.981
34. Inaccurate student enrollment projections*	L1	8	3.00	1.069	L2	41	3.88	0.980	ttl.	49	3.73	1.036
35. Ineffective foundation	L1	8	2.88	0.835	L2	41	3.29	1.078	ttl.	49	3.22	1.046
4. Deferred building maintenance	L1	8	3.38	0.916	L2	41	3.15	0.853	ttl.	49	3.18	0.858
9. Fluctuation in customer demand**	L1	8	3.50	1.195	L2	41	4.07	0.787	ttl.	49	3.98	0.878
8. Inadequate Financial Aid for students	L1	8	3.25	1.282	L2	41	3.85	0.910	ttl.	49	3.76	0.990

*Note:* L1 = Level 1 administrators. L2 = Level 2 administrators. N = number of experts responding to the statement. Mean = calculated average for the statement. Std. = calculated Standard Deviation for the statement. ttl = total. \* = significant Mean differences at  $\alpha = .05$ . \*\* = significant Mean difference at  $\alpha = .10$ .

Table 9 shows the operational risk classification. Level 2 administrators identified a higher risk for item #33, Inability to stabilize or maintain an administrative leadership team, and item #34, Inaccurate student enrollment projections, at  $\alpha = .05$ . For item #33, the mode for the Level 1 administrators was a medium priority, and the mode for the Level 2 administrators was high priority. For item #34, the mode for the Level 1 administrators was both low priority and medium priority, and the mode for the Level 2 administrators was high priority. Additionally, the Level 1 administrators did not score higher at  $\alpha = .05$  for any of the questions.

Table 9

*Descriptive Statistics and One-way ANOVA Results in Analyzing Difference Between the Mean of Standard Deviation at  $\alpha = .05$  and  $\alpha = .10$  Among Operational Risk Based on Responses of Level 1 Administrators and Level 2 Administrators significant. \* = Mean Differences at  $\alpha = .05$ . and \*\* = Mean Differences at  $\alpha = .10$  (N = 49)*

	Operational Risk											
		N	Mean	Std.		N	Mean	Std.		N	Mean	Std.
24. Misaligned organizational structure	L1	8	2.88	0.641	L2	41	3.29	0.955	ttl.	49	3.22	0.919
1. Inability to maintain quality workforce	L1	8	3.63	0.916	L2	41	3.71	0.929	ttl.	49	3.69	0.918
3. Continuity of operations plan / Emergency operations plan	L1	8	3.63	0.916	L2	41	3.34	1.039	ttl.	49	3.39	1.017
13. Improper alignment of student services	L1	8	3.00	1.309	L2	41	3.49	1.052	ttl.	49	3.41	1.098
33. Inability to stabilize or maintain an administrative leadership team**	L1	8	3.00	0.756	L2	41	3.66	0.965	ttl.	49	3.55	0.959
28. Poor succession planning	L1	8	3.00	0.926	L2	41	3.32	1.011	ttl.	49	3.27	0.995
17. Ineffective security systems	L1	8	3.38	1.302	L2	41	3.39	1.159	ttl.	49	3.39	1.169
18. Lack of effective resources allocation	L1	8	3.63	1.061	L2	41	3.51	0.898	ttl.	49	3.53	0.915
19. Lack of effective safety personnel	L1	8	3.13	1.126	L2	41	3.12	1.053	ttl.	49	3.12	1.053
6. Failure to keep pace with technology	L1	8	3.63	0.744	L2	41	3.85	0.823	ttl.	49	3.82	0.808
4. Deferred building maintenance	L1	8	3.38	0.916	L2	41	3.15	0.853	ttl.	49	3.18	0.858
34. Inaccurate student enrollment projections*	L1	8	3.00	1.069	L2	41	3.88	0.980	ttl.	49	3.73	1.036
8. Inadequate Financial Aid for students	L1	8	3.25	1.282	L2	41	3.85	0.910	ttl.	49	3.76	0.990
30. Unexpected shift in student demands	L1	8	2.88	0.641	L2	41	3.27	0.975	ttl.	49	3.20	0.935
29. Safe and friendly environment	L1	8	3.25	0.707	L2	41	3.37	1.043	ttl.	49	3.35	0.991

*Note:* L1 = Level 1 administrators. L2 = Level 2 administrators. N = number of experts responding to the statement. Mean = calculated average for the statement. Std. = calculated Standard Deviation for statement. ttl. = total. \* = significant Mean differences at  $\alpha = .05$ .

Table 10 shows that, in the reputational risk classification, Level 2 administrators identified a higher risk for item #25, Strained relations within the community - negative town / gown relationships, at  $\alpha = .05$ . For that item, the mode for the Level 1 administrators was low priority, and the mode for the Level 2 administrators was high priority. Additionally, Level 1 administrators did not score higher at  $\alpha = .05$  for any of the questions.



Table 10

*Descriptive Statistics and One-way ANOVA Results in Analyzing Difference Between the Mean of Standard Deviation at  $\alpha = .05$  and  $\alpha = .10$  Among Reputational Risk Based on Responses of Level 1 Administrators and Level 2 Administrators significant. \* = Mean Differences at  $\alpha = .05$ . and \*\* = Mean Differences at  $\alpha = .10$  (N = 49)*

	<b>Reputational Risk</b>											
		N	Mean	Std.		N	Mean	Std.		N	Mean	Std.
25. Strained relations within the community - negative town / gown relationships*	L1	8	2.75	1.282	L2	41	3.71	0.929	ttl.	49	3.55	1.042
29. Safe and friendly environment	L1	8	3.25	0.707	L2	41	3.37	1.043	ttl.	49	3.35	0.991
14. Inability to meet market demand	L1	8	3.50	0.756	L2	41	3.76	0.860	ttl.	49	3.71	0.842
26. Outdated academic programs	L1	8	3.25	1.035	L2	41	3.71	0.929	ttl.	49	3.63	0.951
6. Failure to keep pace with technology	L1	8	3.63	0.744	L2	41	3.85	0.823	ttl.	49	3.82	0.808
23. Misaligned marketing strategies	L1	8	3.13	0.835	L2	41	3.44	1.026	ttl.	49	3.39	0.996

*Note:* L1 = Level 1 administrators. L2 = Level 2 administrators. N = number of experts responding to the statement. Mean = calculated average for the statement. Std. = calculated Standard Deviation for statement. ttl. = total. \* = significant Mean differences at  $\alpha = .05$ .

Table 11 shows that, for the strategic risk classification, Level 2 administrators identified a higher risk for item #9, Fluctuation in customer demand, and item #33, Inability to stabilize or maintain an administrative leadership team, at  $\alpha = .10$ . For item #9, the mode for the Level 1 administrators was equally distributed between low priority and essential priority, and the mode for the Level 2 administrators was high priority. For item #33, the mode for the Level 1 administrators was a medium priority, and the mode for the Level 2 administrators was high priority. Additionally, the Level 1 administrators did not score higher at  $\alpha = .10$  for any of the questions.

Table 11

*Descriptive Statistics and One-way ANOVA Results in Analyzing Difference Between the Mean of Standard Deviation at  $\alpha = .05$  and  $\alpha = .10$  Among Compliance Risk Based on Responses of Level 1 Administrators and Level 2 Administrators Significant. \* = Mean Differences at  $\alpha = .05$ . and \*\* = Mean Differences at  $\alpha = .10$  (N = 49)*

	Strategic Risk											
		N	Mean	Std.		N	Mean	Std.		N	Mean	Std.
21. Lack of vision, direction, and focus	L1	8	3.63	1.302	L2	41	4.15	0.963	ttl.	49	4.06	1.029
20. Lack of external partnership development	L1	8	3.50	0.926	L2	41	3.51	0.779	ttl.	49	3.51	0.794
5. Delay in time to market for new programs	L1	8	3.63	0.518	L2	41	3.54	0.977	ttl.	49	3.55	0.914
12. Improper alignment of programs for target market	L1	8	3.38	0.744	L2	41	3.80	0.782	ttl.	49	3.73	0.785
28. Poor succession planning	L1	8	3.00	0.926	L2	41	3.32	1.011	ttl.	49	3.27	0.995
30. Unexpected shift in student demands	L1	8	2.88	0.641	L2	41	3.27	0.975	ttl.	49	3.20	0.935
14. Inability to meet market demand	L1	8	3.50	0.756	L2	41	3.76	0.860	ttl.	49	3.71	0.842
9. Fluctuation in customer demand**	L1	8	3.50	1.195	L2	41	4.07	0.787	ttl.	49	3.98	0.878
26. Outdated academic programs	L1	8	3.25	1.035	L2	41	3.71	0.929	ttl.	49	3.63	0.951
33. Inability to stabilize or maintain an administrative leadership team**	L1	8	3.00	0.756	L2	41	3.66	0.965	ttl.	49	3.55	0.959
6. Failure to keep pace with technology	L1	8	3.63	0.744	L2	41	3.85	0.823	ttl.	49	3.82	0.808
18. Lack of effective resources allocation	L1	8	3.63	1.061	L2	41	3.51	0.898	ttl.	49	3.53	0.915
24. Misaligned organizational structure	L1	8	2.88	0.641	L2	41	3.29	0.955	ttl.	49	3.22	0.919
35. Ineffective foundation	L1	8	2.88	0.835	L2	41	3.29	1.078	ttl.	49	3.22	1.046

*Note:* L1 = Level 1 administrators. L2 = Level 2 administrators. N = number of experts responding to the statement. Mean = calculated average for the statement. Std. = calculated standard deviation for the statement. ttl. = total. \*\* = significant Mean difference at  $\alpha = .10$ .

Due to the number of responses, the data were also run using the Mann-Whitney tests. The results of the Mann-Whitney tests suggested the same conclusions, except for risk 7, FERPA, and risk 9, Fluctuation in customer demand. The findings are as follows: compliance risk 7 (FERPA) had a  $\alpha$  -value of .079 (which is  $> .05$ ); financial risk and strategic risk 9 (Fluctuation in customer demand) had a  $\alpha$  -value of .180 (which is  $> .10$ ).

### **Research Question 3**

What new risks are surfacing at two-year colleges?

Table 12 displays taxonomy of agreement scores and risk levels, which are classified as high, medium or low, associated with compliance risk based on outcomes from the college classification group. Of the nine risks placed in the compliance classification, all had an agreement score of 5/5 except for “integration with multiple software and systems, which essentially puts security at risk” which had an agreement score of 3/5 and a low risk level.

Table 12

*Descriptive Statistics Identifying the Agreement Score for Risk Classification and the Ranking of Each Risk from the Top Three Risks. H = Top 3, M = the Group in the Middle and L = Bottom Three Risks Based on Responses of Local Assessment Team of One Level 1 Administrator and Four Level 2 Administrators. (N = 78)*

<b>Compliance Risk</b>		
Identified Risk	Agreement Score	Risk Level
Gainful employment (GE) regulations.	5/5	H
Changes in FLSA regulations and compensation.	5/5	H
Changes in requirements for faculty to teach from our accrediting body (HLC) resulting in the need for faculty to return to college for master's courses in their fields of teaching - resulting in additional costs to the Institution.	5/5	H
All the additional requirements put on us (i.e. Gainful Employment both disclosure and reporting), new fund programs within the state and the extra work this requires (i.e. emergency funding).	5/5	M
An increasing number of compliance issues.	5/5	M
Accessibility as a proactive vs. reactive accommodation.	5/5	M
Safety of students and staff. Costs to provide safety.	5/5	L
Integration with multiple software and systems which essentially puts security at risk.	3/5	L
Expansion of Title IX scope.	5/5	L

Note: H = 3 highest-ranked risks, M = classification of the risks between the highest 3 and lowest 3, and L = 3 lowest-ranked risks. Agreement Score is the number of participants who agreed with the classification; 5/5 is the highest agreement score.

Table 13 displays taxonomy of agreement scores and risk levels, classified as high, medium or low, associated with financial risk based on outcomes from the college classification group. Of the 26 risks placed in the financial classification, 3 had a high risk level. Of these 3 risks, only one had a 5/5 agreement score; the others had an agreement score of 4/5.

Table 13

*Descriptive Statistics Identifying the Agreement Score for Risk Classification and the Ranking of Each Risk from the Top Three Risks. H = Top 3, M = the Group in the Middle and L = Bottom Three Risks Based on Responses of Local Assessment Team of One Level 1 Administrator and Four Level 2 Administrators. (N = 78)*

<b>Financial Risk</b>		
Identified Risk	Agreement Score	Risk Level
Lack of money from millage and state appropriations.	5/5	H
Declining enrollment and retention.	4/5	H
Continued declining funding.	4/5	H
Increased federal and state expectations with fewer funding and greater outcomes.	5/5	M
State climate in supporting CTE education.	3/5	M
Defaulting student loan rates for two-year schools higher than 4 year schools, we have no control over defaulters.	4/5	M
Performance-based funding measures that penalize open enrollment.	5/5	M
Difficulty identifying and recruiting adult learners to fill the gap.	4/5	M
Increase in unfunded mandates - ex; transgender bathrooms, etc.	5/5	M
Competition from 4 year public and private institutions within our traditional market segment.	4/5	M
Student demographic projections in the upper Midwest does not support the number of higher education institutions that are currently located in the region. Higher Education is no longer a "growth" industry.	5/5	M
Continued disinvestment from legislature and continued unfunded federal, state and HLC mandates.	5/5	M
The continued decrees of a high school graduation population. This means fewer students will be seeking college futures.	5/5	M
Shrinking local populations...graduating HS students.	5/5	M
Shift in student population and decreasing student numbers.	4/5	M
Threat of poor public funding and poor legislative understanding of education.	5/5	M
Diminished traditional population base.	5/5	M
Threat of for-profit colleges.	3/5	M

Table 13. *Descriptive Statistics Identifying the Agreement Score for Risk Classification and the Ranking of Each Risk from the Top Three Risks. H = Top 3, M = the Group in the Middle and L = Bottom Three Risks Based on Responses of Local Assessment Team of One Level 1 Administrator and Four Level 2 Administrators. (N = 78) (continued)*

Identified Risk	<b>Compliance Risk</b>	Agreement Score	Risk
The continued decline of rural populations is also negatively impacting student enrollment numbers.		5/5	M
Continued declining enrollment.		5/5	M
State funding fluctuations.		5/5	M
Lack of funding.		5/5	M
Continued decrease in funding. From both state resources and local taxes.		5/5	M
The retiring baby boomers are going to place a strain on the financial ability for society to continue to support higher education at the level it currently is at. Continue shift of who pays to the student vs the public.		5/5	L
New graduate job market need/placement funding for public community colleges.		4/5	L
Job market is better; we are experiencing a natural decline in enrollment.		5/5	L

Note: H = 3 highest-ranked risks, M = classification of risk between the highest-3 and lowest-3 ranked threats, and L = 3 lowest-ranked risks. Agreement Score is the number of people (from the group of 5 participants) who agree with the risk classification; 5/5 is the highest agreement score.

Table 14 displays a taxonomy of agreement scores and risk levels, classified as high, medium, or low, associated with the operational risk based on outcomes from the college classification group. Of the 16 risks placed in the operational risk classification, eight had the highest possible agreement score of 5/5; two had an agreement score of 4/5; and six had an agreement score of 3/5.

Table 14

*Descriptive Statistics Identifying the Agreement Score for Risk Classification and the Ranking of Each Risk from the Top Three Risks. H = Top 3, M = the Group in the Middle and L = Bottom Three Risks Based on Responses of Local Assessment Team of One Level 1 Administrator and Four Level 2 Administrators. (N = 78)*

<b>Operational Risk</b>		
Identified Risk	Agreement Score	Risk Level
Student incivility impacting classroom environment (behavior intervention teams springing up).	4/5	H
Lack of ability of qualified staff.	5/5	H
Poor staff retention.	5/5	H
Aging faculty who may not have the technological skills needed.	5/5	M
Accountability related to assessment and continuous improvement.	5/5	M
Lack of "experience" with upper management - not having worked at other institutions - keep the mentality of "this is how it has always been done."	5/5	M
Fear of job loss impacting the campus climate.	5/5	M
Access anytime on any device.	5/5	M
Baby Boomer instructors who have not been in the real world work force for decades and not keeping up with changes in their disciplines. How can they truly teach cutting edge topics effectively?	5/5	M
Unionization and financial impact of legal issues.	3/5	M
Increase in funding required for technology - ex: network security monitoring.	3/5	M
Lack of resources for undergraduate research.	3/5	M
Underprepared students (including language barriers).	4/5	M
Faculty Unionizing - dividing the institution.	3/5	L
Being more effective in delivering services cheaper.	3/5	L
Embracing teaching and learning shifts due to resistance to change.	3/5	L

Note: H = 3 highest-ranked risks, M = classification of risk between the highest-3 and lowest-3 ranked threats, L = 3 lowest-ranked risks. Agreement Score is the number of people (from the group of 5 participants) who agree with the risk classification; 5/5 is the highest agreement score.



Table 15 displays a taxonomy of agreement scores and risk levels, classified as high, medium, or low, associated with the reputational risk based on outcomes from the college classification group. Of the 13 risks placed in the reputational classification, seven had the highest possible agreement score of 5/5; four had an agreement score of 4/5; and two had an agreement score of 3/5. In addition, a risk with a 3/5 agreement score was identified as medium (M) risk. All the risks classified as high (H) had an agreement score of 5/5.

Table 15

*Descriptive Statistics Identifying the Agreement Score for Risk Classification and the Ranking of Each Risk from the Top Three Risks. H = Top 3, M = the Group in the Middle and L = Bottom Three Risks Based on Responses of Local Assessment Team of One Level 1 Administrator and Four Level 2 Administrators. (N = 78)*

<b>Reputational Risk</b>		
Identified Risk	Agreement Score	Risk Level
Transferability of credits.	5/5	H
Overall academic quality.	5/5	H
Perception that a four-year degree is of more value than a two-year one.	5/5	H
Increased mental health issues among students.	3/5	M
Economy drawing prospects into the work force at the same wages as they can earn with a certificate, diploma or degree.	5/5	M
Campus cultures.	3/5	M
Consumer mentality.	4/5	M
Personal safety issues both real and imagined.	4/5	M
Lack of perceived value of technical degrees (transportation, construction careers, etc.) by K-12, parents and the public at large.	4/5	M
Apathy among students.	5/5	M
Job security.	5/5	L
This was once (not that long ago) the place where everyone wanted to work and employees referred their friends to apply for openings that only happened as a result of retirement. Now there are no referrals and people are leaving like rats from a burning ship. More than 40 people have left in less than a year. This is an organization of less than 300 employees. I thought this was a trend only in our college but I hear this more and more from other Technical Colleges too.	5/5	L
Moving from historical community alignment and operations practices to an effective and dynamic organization.	4/5	L

Note: H = 3 highest-ranked risks, M = classification of risk between the highest-3 and lowest-3 ranked threats, and L = 3 lowest-ranked risks. Agreement Score is the number of people (from the group of 5 participants) who agree with the risk classification; 5/5 is the highest agreement score.

Table 16 displays a taxonomy of agreement scores and risk levels, classified as high, medium, or low, associated with strategic risk based on outcomes from the college classification group. Of the 12 risks placed in the strategic classification, seven had the highest possible agreement score of 5/5; five had an agreement score of 4/5; and zero had an agreement score of 3/5.

Table 16

*Descriptive Statistics Identifying the Agreement Score for Risk Classification and the Ranking of Each Risk from the Top Three Risks. H = Top 3, M = the Group in the Middle and L = Bottom Three Risks Based on Responses of Local Assessment Team of One Level 1 Administrator and Four Level 2 Administrators. (N = 78)*

<b>Strategic Risk</b>		
Identified Risk	Agreement Score	Risk Level
National climate for education at community and technical college level (Presidential election year).	5/5	H
A future that includes no brick and mortar colleges - two-year colleges won't evolve to exist in that model.	4/5	H
Becoming extinct - losing market space to four-year and technical colleges.	5/5	H
Over-focus on workforce training undermines transfer functions.	5/5	M
Not allowing two-year colleges to offer more than one or two bachelor degrees.	5/5	M
The need to create a culture of innovation and reduce impact risks from SWOT analysis.	4/5	M
Political volatility and micromanagement.	5/5	M
Institutional inability to respond to disruptive technology shifts.	4/5	M
Technology use and cost.	4/5	M
Engaging students and parents in career pathways in high demand areas to satisfy industry demand.	4/5	L
Ability to compete with free and open educational resources.	5/5	L
Technology advancement and the speed of change/advancement.	5/5	L

Note: H = 3 highest-ranked risks, M = classification of risk between the highest-3 and lowest-3 ranked threats, and L = 3 lowest-ranked risks. Agreement Score is the number of people (from the 5 participants) who agreed with the risk classification; 5/5 is the highest agreement score.

#### **Research Question 4**

Are there differences among the levels of perceived risk based on the respondents' demographics?

Table 17 provides the descriptive statistics that analyze the differences among the levels of perceived risk based on the administrators' demographics. Item #35, Ineffective foundation, in the strategic risk category was the only risk item that had a significant difference and was reported by mean differences of standard deviation. This difference was seen between Michigan (MI) and Wisconsin (WI) at  $\alpha = .004$ . There were no other significant differences found in this analysis.

Table 17

*Differences for the Level of Risk Based on the Responses from the Level 1 and Level 2 Administrators Across the Three States (N = 49)*

Strategic Risk	State		Mean Difference (I-J)	Std. Error	Sig.
35. Ineffective foundation	MI	2(WI)	1.167	0.346	0.004*
		3(MN)	0.479	0.317	0.296
	WI	1(MI)	-1.167	0.346	0.004*
		3(MN)	-0.668	0.365	0.155
	MN	1(MI)	-0.479	0.317	0.296
		2(WI)	0.688	0.365	0.155

Note: MI = All Michigan administrators. WI = All Wisconsin administrators. MN = All Minnesota administrators. N = number of experts responding to the statement. Std. = calculated Standard Deviation for statement. Sig. = significant differences at  $\alpha = .05$ .

### Chapter Summary

The study's purpose was to organize 35 identified risks into one of the five classifications in order to establish a taxonomy created by peers and to measure the variances in the risk level at two-year colleges. A survey was distributed to 1,307 administrators in Michigan, Wisconsin and Minnesota as a way of collecting data to conduct this study.

There were four questions that guided the research:

1. How do two-year college administrators classify various risks into risk taxonomy?

2. Are there differences among the levels of perceived risk based on the level of administrative position held?
3. What new risks are surfacing at two-year colleges?
4. Are there differences among the levels of perceived risk based on the respondents' demographics?

There are five tables that displayed the findings for the P = primary risk and S = secondary risk in each of the five classifications for research question 1. There were an additional five tables that provided the findings that address question 2; these provide the differences among the levels of perceived risk based on the level of administrative position held. The findings for research question 3 were provided in five tables which clearly identified the risk and its classification with an agreement score and the level of risk.

The findings for research question 4 were illustrated in one table which contained the only risk that had significance difference in its findings. The table provided the risk, states, Mean Difference, Standard Error, and Significant Difference.

## **CHAPTER 5. SUMMARY AND RECOMMENDATIONS FOR FURTHER RESEARCH**

This chapter provides a summary of the research study; the chapter focuses on establishing a taxonomy of risk and identifying the differences, if any, in the risks perceived by the Level 1 and Level 2 administrators employed at two-year colleges in the states of Michigan, Wisconsin, and Minnesota. A brief overview of the study is provided, followed by a summary of the major findings and the recommendations for future research.

### **Restatement of the Problem**

A universal problem for colleges and universities to manage their risk is the difficulty of finding peer groups that are willing to share best practices about managing risk and the losses experienced due to poor risk management. Because colleges and universities are being asked to do more with less, they cannot afford to miscalculate the potential risks associated with events that may affect the achievement of specific objectives. Consequently, it is essential to implement an Enterprise Risk Management system that manages the risk appetite when classifying the strategic risk, operational risk, financial risk, reputational risk, and compliance risk (Kerr & Hosie, 2013).

The need to effectively interpret the classifications and levels of risk continues to grow. While reviewing this study's responses, it became apparent that the Level 1 and Level 2 administrators were aware of the different risks encountered with their job. The awareness of risk is noteworthy because, if administrators are not aware of the risks which they may encounter, they may not know how to mitigate or to capitalize on those risks. An inadequate understanding of risk management may pose challenges for seeking appropriate resources. A level of awareness and understanding needs to remain on the radar in order to help these administrators better manage the risks that they encounter. The room for acceptable loss is tightening, and the need for

a greater return on investments is growing; the better an administrator is able to manage risk, the more valuable he or she becomes to the institution.

The results identified in this study's findings can help guide a discussion related to the Level 1 and Level 2 administrators' primary areas of concern for improved risk management. This information can drive the discussion and initiate the exchange of best practices among peers. By giving administrators access to additional resources, such as workshops, webcasts, or other activities directed towards expanding knowledge, there is an increased exchange of information between peers and subject-matter experts, resulting in a higher level of knowledge and understanding.

Graduate programs, such as education leadership, student affairs, adult and postsecondary education, and continuing education, need to deliver a curriculum that addresses risk management in higher education. This formal education will help new administrators develop a greater understanding about the need to manage risk as well as the people and other resources which are available. By accomplishing by educating administrators, risk, as a whole, can be better managed in order to prevent loss and to capture gain on different opportunities. The outcome will be that new administrators will have the knowledge to better address risks that change quickly; to respond to unfunded mandates with better results; to increase productivity; to maintain continuity of operations in an emergency; to increase accountability while driving down the costs that impact the delivery of education; and, most importantly, to strengthen trust and integrity with various external and internal stakeholders. A better understanding about how to manage risk might assist administrators with developing new policies and/or procedures to better guide the institution, faculty, staff, students, and external stakeholders.



## **Methods and Procedures**

This study used a series of short questions to help determine if there are different taxonomies of risk based on the respondent's administrative classification or differences among the levels of perceived risk based on the person's administrative position; the survey also solicited new risks that are emerging at two-year colleges. The previous chapters discussed the methodology utilized to conduct the research. The following section explains the results for each question and the implications for those results.

## **Major Study Findings**

The study's major findings are summarized in relation to the research questions. The findings for the first two questions come from the classification process and the risk perceptions for the 35 identified risks that are common to higher education.

Research Question 1: How do two-year college administrators classify various risks into a risk taxonomy?

This research question identified if there was a different risk taxonomy based on the person's higher-education administrative classification. This finding was accomplished by compiling a group of 35 risks that occur in higher education. The participants were asked to identify which single classification best fit the listed risk. The options to select from were as follows: compliance risk, financial risk, operational risk, reputational risk, and strategic risk. The participants had to self-identify their administrative classification. There were two classification levels from which to select. Level 1 administrators (L1) were a president, risk manager, vice president, CFO, CEO, provost, executive director, or executive business manager. Level 2 administrators (L2) were a dean, director, business manager, department chair, program coordinator, or department head.

Unfortunately, the researcher was unable to answer this question because there was not a high-enough response rate from the Level 1 administrators to draw conclusions. The data collected for both Level 1 and Level 2 administrators were combined to establish one risk taxonomy. This finding included risks that were identified as primary and secondary risks. The primary-risk classification was based on the highest percentages or response rates. The secondary-risk classification was based on any risk that was identified in the first quartile, having 25% or more of the responses, and was not the highest response for the grouping.

Based on the collective findings from the Level 1 and Level 2 administrators, there is now a risk taxonomy that can be utilized to help identify what risks should be addressed by different groups of people at the college. This information can be used if a college develops a risk management plan and creates teams to focus on specific areas. Based on the five risk classifications, there would be defined risks for the different groups. For example, a risk management team addressing the reputational risk can focus on the following primary risks that were identified in Table 5: strained relations within the community - negative town / gown relationships, safe and friendly environment, inability to meet market demand, and outdated academic programs. The secondary risks for this classification would be failure to keep pace with technology and misaligned marketing strategies.

Table 18 illustrates that three questions were ranked in two primary-risk classifications. The importance of this finding was that these perceived risks could be addressed by creating cross-functional task teams composed of subject-matter experts with equal representation from the two identified risk areas.

Table 18

*Items Ranked as Primary Risks in Multiple Classifications*

Risk	Classification	% Response	P=Primary or S=Secondary
8. Inadequate Financial Aid for students	Financial	28.57%	P
8. Inadequate Financial Aid for students	Operational	28.57%	P
14. Inability to meet market demand	Reputational	40.82%	P
14. Inability to meet market demand	Strategic	40.82%	P
26. Outdated academic programs	Reputational	38.78%	P
26. Outdated academic programs	Strategic	38.78%	P

*Note:* % Response = percentage of respondents who selected this classification for the identified risk. Classification = primary risk (P) or secondary risk (S).

Table 19 identifies 13 items that had one primary- and one secondary-risk classification. The importance of this finding was that these perceived risks could be addressed by creating cross-functional task teams composed of subject-matter experts with representation proportionate to the findings for the two identified risk areas.

Table 19

*Items Ranked as Having One Primary and One Secondary Risk Classification*

Risk	Classification	% Response	P=Primary or S=Secondary
4. Deferred building maintenance	Financial	40.82%	P
4. Deferred building maintenance	Operational	34.69%	S
9. Fluctuation in customer demand	Strategic	38.78%	P
9. Fluctuation in customer demand	Financial	30.61%	S
18. Lack of effective resources allocation	Operational	46.94%	P
18. Lack of effective resources allocation	Strategic	28.57%	S
19. Lack of effective safety personal	Operational	38.78%	P
19. Lack of effective safety personal	Compliance	34.69%	S
23. Misaligned marketing strategies	Strategic	36.73%	P
23. Misaligned marketing strategies	Reputational	28.57%	S
24. Misaligned organizational structure	Operational	69.39%	P
24. Misaligned organizational structure	Strategic	28.57%	S
28. Poor succession planning	Operational	51.02%	P
28. Poor succession planning	Strategic	44.90%	S
29. Safe and friendly environment	Reputational	55.10%	P
29. Safe and friendly environment	Operational	26.53%	S
30. Unexpected shift in student demands	Strategic	44.90%	P
30. Unexpected shift in student demands	Operational	28.57%	S
31. Unfunded mandates	Financial	63.27%	P
31. Unfunded mandates	Compliance	26.53%	S
33. Inability to stabilize or maintain an administrative leadership team	Operational	57.14%	P
33. Inability to stabilize or maintain an administrative leadership team	Strategic	38.78%	S
34. Inaccurate student enrollment projections	Financial	48.98%	P
34. Inaccurate student enrollment projections	Operational	32.65%	S
35. Ineffective foundation	Financial	44.90%	P
35. Ineffective foundation	Strategic	28.57%	S

*Note:* % Response = percentage of respondents who selected this classification for the identified risk. Classification = primary risk (P) or secondary risk (S).

Table 20 shows how one item had one primary- and two secondary-risk classifications. The importance of this finding was that this perceived risk could be addressed by creating cross-functional task teams composed of subject-matter experts from the three risk classifications.

Table 20

*Items Ranked as Having One Primary and Two Secondary Risk Classifications*

Risk	Classification	% Response	P=Primary or S=Secondary
6. Failure to keep pace with technology	Operational	36.73%	P
6. Failure to keep pace with technology	Strategic	32.65%	S
6. Failure to keep pace with technology	Reputational	28.57%	S

*Note:* % Response = percentage of respondents who selected this classification for the identified risk. Classification = primary risk (P) or secondary risk (S).

**Research Question 2**

Are there differences among the levels of perceived risk based on the person’s administrative position?

This research question identified if there were differences among the levels of perceived risk based on the person’s higher-education administrative position.

A one-way ANOVA was run to determine if there were significant differences between the Level 1 and Level 2 administrators. Based on the test, there were four items with significant differences at  $\alpha = .05$ : one was a compliance risk; one was a financial risk; one was a reputational risk; and one was both an operational and a financial risk. Additionally, three questions had significant differences at  $\alpha = .10$ : one was a compliance risk; one was an operational risk; and one was both a financial and a strategic risk.

The response rate of eight participants for the Level 1 administrators did not indicate this statement as true. There were not enough responses for the Level 1 administrators to run an adequate comparison of means. A preliminary one-way ANOVA indicated that seven items had significant differences. The low response rate for the Level 1 administrators increased the probability of a type-1 error.

Based on these findings, there were a majority of risks that are common for both Level 1 and Level 2 administrators. These findings can help when developing an understanding about how risk influences higher education and how risk should be managed.

### **Research Question 3**

What new risks are surfacing at two-year colleges?

The data collected for the open-ended question were grouped into five different risk classifications through an affinity-analysis process that was driven by five subject-matter experts. The subject-matter experts were college administrators. There was one Level 1 administrator and four Level 2 administrators.

A further review of the emerging risk submitted by the participants was for five Michigan college administrators to move through a four-step process in order to classify and rank the risks. Prior to starting this process, all the submitted risks were printed on 3" x 5" note cards, and the five risk classifications and their descriptions were printed on 5" x 8" note cards. The process consisted of the following four steps which were derived from Bickman (1976):

1. The cards were placed, face up, on the table so that they could be read by the five participants.
2. The participants reviewed the risks and placed each peril in one of the five risk classifications.

3. The next step was to develop an agreement score.
  - a. Agreement scores were achieved by identifying the number of people (from the five participants) who were in agreement. For an item to be classified as a specific risk, it required a minimum of three of the five participants to agree, creating a 3/5 agreement score. If fewer than three participants agreed, then there was discussion to either reclassify or to remove the risk.
4. After all the risks were placed into a classification, the final step required the participants to rank order the risks for each classification.
  - a. After much discussion, the participants decided that they could not come to a consensus for rank ordering all the risks. They then decided to identify the top three and lowest three risks in each of the five classifications. Then, the risks were then grouped into high (top-three risks), medium (risks between the top-three and bottom-three risks), and low (bottom-three risks) risks.

#### **Research Question 4**

Are there differences among the levels of perceived risk based on the respondents' demographics?

The only differences among the levels of perceived risk based on the respondents' demographics existed between Michigan and Wisconsin at  $\alpha = .004$ . This risk was ineffective foundation and was located in the taxonomy under the strategic risk classification. A plausible theory about why the Wisconsin administrators ranked ineffective foundation as a lower risk was that Wisconsin foundations have greater success with bringing in external resources that support their missions.

## **Limitations**

The study's findings and recommendations were limited by several conditions.

1. The survey distribution was limited to administrators at two-year colleges in Minnesota, Wisconsin, and Michigan.
2. Some respondents may not fully understand their role in managing risk or think of themselves as a person who manages risk.
3. This lack of understanding could have affected respondents' interpretation of the questions and caused some of the data to be skewed.
4. The data collected may not effectively represent the three-state population.
5. Greater pilot testing is needed. Many people did not go beyond the first page of questions. It is unclear if the next-page tab was displayed equally for all participants.

## **Recommendations for Future Studies**

This study's findings indicate a need for additional research which would include looking at the effectiveness that the colleges and universities' Level 1 and Level 2 administrators have when developing and implementing risk-management plans. It would be interesting to do a comparative analysis between the classification of risks and the risk taxonomy that was developed with this research. This comparison could help to develop best practices for Enterprise Risk Management systems at colleges and universities. While conducting the literature review, there was a noticeable amount of institutions not managing risk to the extent that they should. Managing risk would help reduce loss in some areas and help capitalize on opportunities in other areas.

Additionally, there are many opportunities for future research about risk management in higher education:



1. Qualitative survey of Level 1 and Level 2 administrators in order to determine the best practices for a continuity of operation during a disaster, local or national.
2. Detailed research about the risk associated with studying abroad in turbulent political times.
3. Analyze data to learn how to minimize reputational risk by “improving strained relations within the community - negative town / gown relationships.”
4. Research variables (key-risk indicators) that hinder an institution’s ability to establish a clear vision, direction, and focus.
5. Conduct a similar study at four-year schools, both teaching and research institutes, as there is already noticeable value in the findings based on the research of two-year schools.

An applied recommendation for operational applications is for a higher-education ERM oversight team to include representatives from each risk classification in a dialogue about the different risks that they encounter in their areas. By sharing this information, administrators can develop a better understanding about how risk bleeds across multiple classifications and needs to be managed by various groups due to complex operational issues.

### **Conclusions**

The study’s purpose was to organize the identified risks into one of the five classifications in order to establish a taxonomy created by peers and to measure the risk-level variances at two-year colleges. This researcher feels the purpose has been achieved and the results are valid and of importance to two year college administrators. It shows how administrators classify risk and it has developed one of the first risk taxonomy for managing risks in higher education for two-year schools.

The study has shown that there are differences among levels of perceived risk based on the level of administrative position held. It was interesting to note that while there are differences in the risks identified in the survey. There was no evidence of clustering within the five identified classifications of risks. There appeared to be almost an equal distribution of risks that had differences.

The participating administrators' submissions of new and emerging risks in two-year schools helped to establish a functional inventory. This new inventory is a tool to be shared among administrators to help provide an awareness and guidance when managing risk. The submitted risks were categorized into the following: 26 financial, 16 operational, 13 reputational, 12 strategic, and 9 compliance.

It was also interesting that the findings illustrated there was only one risk that had significant differences among the levels of perceived risk based on the respondents' demographics. This finding shows that there are many commonalities in the levels of perceived risk in two-year colleges within Michigan, Wisconsin, and Minnesota.

This information will be beneficial as two-year college administrators become more involved in risk management and search for peers to share ideas and build upon best practices. The potential outcome will be improved risk management for administrators at two-year colleges.

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## APPENDIX A. IRB LETTER OF APPROVAL



April 29, 2016

Dr. Myron Eighmy  
School of Education

Re: IRB Certification of Exempt Human Subjects Research:  
Protocol #HE16251, "Understanding of the risk management concepts and issues in 2-year colleges"

Co-investigator(s) and research team: John Centko

Certification Date: 4/29/2016 Expiration Date: 4/28/2019  
Study site(s): online  
Sponsor: n/a

The above referenced human subjects research project has been certified as exempt (category # 2b) in accordance with federal regulations (Code of Federal Regulations, Title 45, Part 46, Protection of Human Subjects). This determination is based on the revised protocol and consent/information sheet (received 4/27/2016).

Please also note the following:

- If you wish to continue the research after the expiration, submit a request for recertification several weeks prior to the expiration.
- The study must be conducted as described in the approved protocol. Changes to this protocol must be approved prior to initiating, unless the changes are necessary to eliminate an immediate hazard to subjects.
- Notify the IRB promptly of any adverse events, complaints, or unanticipated problems involving risks to subjects or others related to this project.
- Report any significant new findings that may affect the risks and benefits to the participants and the IRB.

Research records may be subject to a random or directed audit at any time to verify compliance with IRB standard operating procedures.

Thank you for your cooperation with NDSU IRB procedures. Best wishes for a successful study.

Sincerely,

Digitally signed by Kristy Shirley  
DN: cn=Kristy Shirley, o=NDSU,  
ou=Institutional Review Board,  
email=kristy.shirley@ndsu.edu,  
c=US  
Date: 2016.04.29 11:00:23 -0500

Kristy Shirley, CIP, Research Compliance Administrator

For more information regarding IRB Office submissions and guidelines, please consult [http://www.ndsu.edu/research/integrity\\_compliance/irb/](http://www.ndsu.edu/research/integrity_compliance/irb/). This Institution has an approved FederalWide Assurance with the Department of Health and Human Services: FWA00002439.

### INSTITUTIONAL REVIEW BOARD

NDSU Dept 4000 | PO Box 6050 | Fargo ND 58108-6050 | 701.231.8995 | Fax 701.231.8098 | [ndsu.edu/irb](http://ndsu.edu/irb)

Shipping address: Research 1, 1735 NDSU Research Park Drive, Fargo ND 58102

ndsu is an equal opportunity university

## APPENDIX B. CONSENT FORM



Education Doctoral Program  
School of Education

701.231.5775  
Fax 701.231.7416  
Myron.eighmy@ndsu.edu

### Survey Consent Statement

**Title of Research Study:** Understanding of Risk Management Concepts and Issues in 2-Year Colleges

**This study is being conducted by:** John Centko, a doctoral candidate in the North Dakota State University School of Education, under the direction of faculty adviser, Dr. Myron Eighmy.

**Data Collection Process is Anonymous:** The data collection process will be anonymous. (not even the researcher will know who participated in the study).

**Confidentiality of Records:** The data collection process does not collect information that will be able to identify individuals.

**Participation:** Your participation is voluntary. Participants may choose not to participate or quit participating at any time without penalty or loss of benefits to which they are already entitled.

**Who do I contact if I have questions or concerns?** If you have any questions about this study, please contact me at 701.261.3397 or [jcentko@ndsu.edu](mailto:jcentko@ndsu.edu) or contact my faculty advisor, Dr. Myron Eighmy at 701.231.5775 or [myron.eighmy@ndsu.edu](mailto:myron.eighmy@ndsu.edu).

**What are my rights as a research participant?** You have rights as participant in research. If you have questions about the rights of human participants in research, or to report a problem, you may contact the NDSU Human Research Protection Program, at 701. 231.8908, toll-free at 855.800.6717 or via email at [ndsu.irb@ndsu.edu](mailto:ndsu.irb@ndsu.edu).

**APPENDIX C. EXEMPT PROTOCOL**

Date Received



IRB Protocol #:

INSTITUTIONAL REVIEW BOARD

**office:** Research 1, 1735 NDSU Research Park Drive, Fargo, ND 58102

**mail:** NDSU Dept. #4000, PO Box 6050, Fargo, ND 58108-6050

**p:** 701.231.8995 **f:** 701.231.8098 **e:** [ndsuirb@ndsuh.edu](mailto:ndsuirb@ndsuh.edu) **w:** [www.ndsuh.edu/irb](http://www.ndsuh.edu/irb)

**IRB PROTOCOL FORM: Exempt Categories**

Application to Conduct Research Involving Human Participants

**1. Title of Project:** Understanding of the risk management concepts and issues in two-year colleges

**2. Principal Investigator:** Myron Eighmy, Ed.D.

Dept. name: Education

*(PI must be an NDSU faculty or staff member; graduate students must list their advisor as PI)*

Campus address/phone: 701-231-5775  
Myron.Eighmy@ndsuh.edu

Email address:

Role in this research: direct/supervise research

**3. Co-Investigator:** John Centko

Dept. name: Education

Campus address/phone: 701-261-3397

Email address: jcentko@nmu.edu

Role in this research: direct/supervise research

Grad Student - Working on dissertation

**4. Research team:** List all NDSU students, faculty or staff who will assist in the project (recruiting participants, obtaining informed consent, intervening or interacting with participants to obtain information/data, and/or handling identifiable information for research purposes). May provide as a separate attachment.

Name, Dept., Affiliation	E-mail Address	Role in Research	Training date (IRB office only)

- **Note:** Investigators and all members of the research team are required to complete a course in the protection of human research participants every three years. Refer to the IRB 'Training' page for information and a link to the CITI online training.
- The PI is responsible to ensure that any non-NDSU research team member is trained in the protection of human subjects; however, the IRB does not require documentation of this training.

**5. Project dates:** Indicate the anticipated start date (may state 'after IRB approval') and end dates for research procedures involving human subjects: (Note that start date must allow sufficient time for IRB review and approval; no research procedures involving human participants may begin prior to obtaining notification of IRB approval.)

<b>Anticipated start date: May 9, 2016 or after IRB approval</b>	<b>Anticipated end date: May 31, 2016</b>
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### Exemption Screening Questions

A 'yes' response to any of the questions below indicates the project is not eligible to be certified as exempt, and requires either expedited or full board review.



1.  Yes  No Will the research specifically recruit pregnant women, fetuses, prisoners, cognitively impaired individuals, economically or educationally disadvantaged individuals?
2.  Yes  No Will the research involve survey or interview procedures with children (under 18 yrs of age)?
3.  Yes  No Will the research involve the observation of children in settings where the investigator will participate in the activities being observed?
4.  Yes  No Will the research involve an intervention, an attempt to influence or change participants' behavior, perception, or cognition?
5.  Yes  No Will a drug, biological product, medical device, or other product regulated by the FDA be used in this project?
6.  Yes  No Will data collection include sensitive information (illegal activities, or sensitive themes such as sexual orientation, or behavior, undesirable work behavior, or other data that may be painful or very embarrassing to reveal)?

### **Project Description**

*Use plain language, avoiding technical terms, acronyms or jargon, unless explained. The description should be understandable to any person unfamiliar with the area of research.*

#### 1. Purpose and goals of the research:

The purpose of the study is to organize the identified risks into one of the five classifications in order to establish a taxonomy created by peers and to measure the variances in the level of risk at 2 year colleges based on the level of administrative position.

1. What are the different taxonomies of risk based on level of administrative classification?
2. What are the differences among levels of perceived risk based on the level of administrative position held?
3. What new risk are surfacing in 2 year colleges.

**Please see the appendix "A" for a copy of the survey.**

2. Method and procedures: *Explain in detail what subjects will be asked to do or what information will be collected about them, and when or how often research procedures will be conducted. Provide a timeline or schedule of events, if applicable. May provide as a separate attachment, with numbered pages.*

The subjects from two-year schools across three states will be asked to complete an on-line survey consisting of approximately 54 questions. Three of the questions have minimal identifying characteristics and they are listed below.

1. Please identify the Administrative Level that best represents the position you hold
2. What state does your college reside?
3. Which group best represents your years of experience in higher education in your current or similar position?

**Please see the appendix "A" for a copy of the survey.**

3. Performance site(s): *Indicate the location(s) where research procedures will be conducted.*

**The research will be conducted through the use of an online survey tool. Participates being surveyed work for two-year colleges located in Minnesota, Wisconsin, and Michigan.**

**Please see the appendix "A" for a copy of the survey.**

### **Exemption Categories**

*Federal regulations define 6 categories of Exempt Research. A research project may qualify if all parts of the research fall within 1 or more of these categories. NDSU policy requires the IRB to certify all exempt research before the research may begin. The IRB will make the final determination as to level of review in order to protect the rights and welfare of participants.*

Check all that apply, and answer applicable questions:

Exemption category #1: Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as:

research on regular and special educational instructional strategies, or

**research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.**

**1a.** Describe the established or commonly accepted educational setting of the research:

1b. Describe the normal educational practices to be used:

Note:

- This category may include children under 18 years of age ( Complete the 'Children in Research' Attachment)
- If students' academic records will be used for research, the investigator is responsible for compliance with FERPA. Use of academic records for research generally requires a signature from the student (or parent, if student is a minor). More information may be found at: [http://www.ndsu.edu/general\\_counsel/ferpa/](http://www.ndsu.edu/general_counsel/ferpa/).

Exemption category #2: Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior for which subjects cannot be identified directly or through coded identifiers, or, if they can be identified, disclosure of their information/responses outside of the research project would not reasonably place the subjects at risk of criminal or civil liability, or be damaging to their financial standing, employability, or reputation.

(Mark as applicable):

- Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement) for which the subjects cannot be identified, or release of the information would not be harmful to the subject.** (This category *may* include children; attach the 'Children in Research Attachment'.)
- Research involving the use of survey procedures or interview procedures or observation of public behavior for which subjects cannot be identified, or release of the information would not be harmful to the subject.** (This category is *not* applicable to children, except for observation of public behavior where the researcher does not take part in the activities being observed.)

2a. Will data collection include any information which may directly or indirectly identify participants, (including codes or links to identifiers)?  No  Yes\*

NOTE:

- *Even if names will not be collected, it may be possible to identify an individual simply by collecting certain demographics or other unique information about participants that would allow their identity to be deduced, especially within a small sample size, or specific group of individuals.*
- *Check 'yes' if a coded link will be held by any party, at any point in the research, even temporarily)*

*\*If 'yes', is there any potential for harm to participants if confidentiality were to be breached? (\*Harm means any disclosure (intentional or unintentional) of the participant's responses outside the research could reasonably place the participants at risk of criminal or civil liability or can be damaging to the participant's financial standing, employability, or reputation.)*

No     Yes\* *(if 'yes', project is not eligible for exemption under this category)*

**Exemption category #3:** Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under paragraph (b2) of this section if:

the human subjects are elected or appointed public officials or candidates for public office; or

federal statute(s) require(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.

**Exemption category #4:** Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if:

these sources are publicly available, or

the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or indirectly through identifiers linked to the subjects. *(This category may include children.)*

*Additionally, to qualify under this category, all of the following must apply:*

- *all records/data/specimens existed (were 'on the shelf') before this research was proposed*

- *the research will not involve prospective collection (e.g. use of 'left-over' or 'extra' specimens collected going forward, or information that will be added to a record or dataset)*

**4a.** Will coded links to identifiers (e.g. Medical Record numbers, study ID numbers, lab numbers, or any HIPAA identifier) be accessed by any member of the NDSU research team at any time during the course of the research?


No. This is not considered to be human subjects research. Stop here.

Yes: Will codes be recorded by the research team?

No

Yes (*project not eligible for exemption; complete the IRB Protocol form for expedited or full review*)

**4b.** Are the data, documents, records or specimens to be used freely available to the general public?

No.  Attach documented permission from the owner(s) allowing the use for this research.

Yes - describe how the public may access the data, including web address, if applicable:

**4c.** Will the study involve use of human blood, tissues, or specimens?

No

Yes - Project also requires approval from the Institutional Biosafety Committee. If an NDSU employee will handle human blood/tissues/specimens, participation in NDSU's Bloodborne Pathogen Program is also required; more information is available at: [www.ndsu.edu/ibc](http://www.ndsu.edu/ibc).

**4d.** Provide a complete description of the specific data, documents, records or specimens to be studied. If specimens are to be studied, please also indicate if any associated health information will be collected. If selecting a subset of data, indicate how individual records/specimens will be chosen or selected:

 Attach a data collection sheet listing column headings, if applicable.

**4e.** Will members of the research team record or retain (even temporarily) any information that could potentially identify an individual with the data, documents, records or specimens? (Includes both direct identifiers – e.g., names, address, personal ID numbers; as well as indirect identifiers – e.g., demographic information within a small and/or well defined population sample, HIPAA identifiers, or other information that could be used to deduce the identity of an individual)

No       Yes (project not eligible for exemption; complete the IRB Protocol form for expedited or full review).

**4f.** Indicate the source, original purpose, and date(s) of collection of the data, documents, records or specimens, if known:

**4g.** Indicate what individuals were originally told regarding the use and confidentiality of their information, records or specimens ( provide original consent form, contract/agreement, or letter, as applicable):  Unknown

*\*Note: If proposed secondary use is inconsistent with the original agreement with individuals, the IRB may require expedited or full review, as well as informed consent.*

**4h.** Were the data, documents, records or specimens collected as part of research previously approved by another IRB?

No  
 Yes: Indicate IRB:

**Note:**

- Access to some types of data or records may be restricted (e.g., medical records) by additional laws that protect an individual's privacy. Contact the NDSU HIPAA Privacy Officer ([NDSU.HIPAA@ndsu.edu](mailto:NDSU.HIPAA@ndsu.edu)) if research will involve access to individuals' private health information (PHI) held by NDSU.
- If research is limited to use of existing data, documents, records, or specimens, skip to the 'Privacy and Confidentiality' section of this form.

Exemption category #5: Research and demonstration projects that are conducted by or subject to the approval of department or agency heads, and which are designed to study or evaluate public benefits or services. (e.g., evaluation of public benefits programs: Medicare, Public Assistance). (Note that this category may only be used with projects conducted under federal authority, and usually does not apply to academic research projects. See OHRP guidance for more information: <http://answers.hhs.gov/ohrp/categories/1564>)

Exemption category #6: Taste and food quality evaluation and consumer acceptance studies i) if wholesome foods without additives are consumed, or ii) if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the food Safety and Inspection Service of the US Dept. of Agriculture. (This category may include children less than 18 years of age;  attach the Children in Research Attachment).

**6a.** Describe the samples to be used in the research, and explain how they meet the above criteria:

**Proposed Participants, Recruitment and Informed Consent**

1. Describe proposed participants (include the approximate number, any relevant characteristics, and describe how they will be selected, identified, contacted, and/or recruited):

**This research study is designed to help gain a better understanding of the risk management concepts and issues in two-year colleges and to develop a risk management taxonomy for higher education. The study involves approximately 1,300 participants from 66 two-year colleges in Michigan, Minnesota, and Wisconsin.**

**The participants were selected through a review of web pages directories from 66 schools in Michigan, Minnesota, and Wisconsin.**

**There are two levels of participants:**

**Level One Examples- President, Risk Manager, Vice President, CFO, CEO, Provost, Executive Director, or Executive Business Manager**

**Level Two Examples- Dean, Director, Business Manager, Department Chair, Program Coordinator, or Department Head.**

- ❏ Attach a copy of any oral script, advertisement, announcement or preliminary invitation that will be used.

2. Explain procedures for obtaining consent\* from participants (who will seek consent, in what setting and time frame, etc):

**Participants will receive an email from NDSU's Qualtrics system. The email will include information about the research and survey tool. Participation is a voluntary.**

*\*The informed consent process for 'exempt' projects may involve providing the required elements to participants by use of an oral script, handout/information sheet, cover letter, or email; a signature is not usually required. If applicable, prepare an assent document for minors under age 18, as well as a parental permission form. Templates may be found on the '[Forms](#)' page of the website and additional examples may be found on the '[Resources](#)' page.*

- ❏ Attach a copy of the consent document, hand out, or oral script.

3. Will the project purposely withhold some or all information about the research or involve deception?



No

Yes

3a. Please provide justification for waivers of some or all of the elements of consent\*:

N/A

\*Note:

- *This is considered to be a request for a waiver of informed consent, and may be justified only if ethically acceptable; typical instances may include public observation, or use of de-identified existing data, records, or specimens, where the investigator/research team does not, or did not previously have access to participants' names or identities.*
- *Research utilizing medical records may require a signed authorization from patients, and may not qualify for an exemption. The covered entity holding the records is responsible for ensuring compliance with HIPAA privacy rules.*

**4. Compensation:** Will participants or others, be offered incentives for the research (e.g., gifts, payment, reimbursement, services, extra/course credit, or other forms of compensation)?  
*Compensating participants for their time and effort may be appropriate if the amount of compensation does not cause undue influence to participate in a study. Compensation should also be pro-rated, rather than awarded only on completion of the study. If research will involve compensating students with extra credit, specify the amount of extra credit, and what non-research alternatives (equal in time and effort) are available to the students for earning extra credit.*

No

Yes - provide details of the compensation scheme:

**5. Alternatives to research participation:** Describe any alternative procedures available to those who choose not to participate, if applicable.  N/A

**6. Dual relationships:** Does the investigator, co-investigator, any member of the research team, or anyone else assisting with the research have an authority relationship (e.g., instructor/student, employer or supervisor/employee, physician/patient, or other) with potential participants?

No

Yes\* - describe the relationship, and indicate how the research will be conducted to avoid undue influence on participants:

7. Will any aspect of the research be conducted in a classroom setting during class time?

No

Yes - describe what those who choose not to participate will be doing, and provide justification for use of class time for research (☞ attach course syllabus):

8. Will all participants (and/or their parents/guardians, if applicable) be fluent in English?

Yes

No - explain how informed consent will be obtained, and ☞ provide a copy of the translated documents to be used:

9. If research will be conducted at an international site, indicate the investigator's familiarity with the culture and cultural norms, and how the research may affect an individual's standing in their community:

N/A

☞ Provide the questionnaire(s), survey instrument(s), list of interview or focus group questions,

**Instrument(s)**

or

*Provide the list of survey, interview or focus group questions, or oral history objective (may be provided as a separate attachment)*

oral history objective.

## Privacy and Confidentiality

1. Confidentiality: Describe whether or not participants will be promised confidentiality of their responses or information. Include who will have access to individual data and how results will be reported:

**Participation will be voluntary and confidential. The research will have access to the data but will not be able to determine who participated or who responded to what questions.**

2. Identifiable information: Will any information be collected (even temporarily) that could potentially identify an individual? (*This would include not only names, personal ID #s, address, video or audio recordings, or other direct identifiers, but also may include certain demographic or other unique information that could be used to deduce the identity of an individual.*)

No

Yes:

2a. Describe use of any identifying information, including codes or links to identifiers; and indicate why these are necessary for the research:

2b. Indicate whether these identifiers, codes or links will be retained after data collection, and if they will be removed at some point:

3. Video/audio tape recording\*: Will participants be recorded (e.g., audio, video)?

No

Yes - describe the type of recording and specify how they will be used, stored/secured, and their final disposition (*also provide this information to participants on the consent document*):


\* Note that all recordings are considered individually identifiable.

## Other Information

1. Funding: Has an external agency or sponsor agreed to provide funding for the project?

No

Yes- NDSU PTF #: FAR00                      Agency or sponsor:

 Attach **complete** copy of final grant application, agreement or contract.

1a. Were external funds made available for the project prior to IRB approval (via the IRB pre-screening process?)     No     Yes:

1b. Does the grant, agreement or contract related to this project include multiple human subjects research activities that are *not* described in this IRB protocol?

No; all human subject activities are covered in this IRB protocol

Yes; these activities will be covered in a future IRB protocol(s)\*

Yes; these activities have been covered by a previous IRB protocol(s) #:

Yes; these activities have been or will be reviewed by another IRB:

Other; explain:

**Note:**

- **The PI is responsible for obtaining IRB approval prior to initiation of any future human subjects research activities.**
- *To certify IRB approval of an award, the final funding proposal and the IRB protocol are compared to verify consistency with respect to human subjects activities.*
- *If external funds will be used for the project, Sponsored Programs Administration requires internal approval of the proposal by submission of a Proposal Transmittal Form (PTF). Consult the [SPA website](#) for more information.*

**2. Other institution(s):** Are any outside entities engaged in this research (e.g., receiving a direct award, grant or contract to perform research, directing or supervising the research, intervening and/or interacting with participants for research purposes, obtaining informed consent, obtaining private identifiable information or specimens from any source for research purposes, or utilizing private information or human specimens for FDA regulated research)?

Additional information may be found in [SOP 2.3](#) 'Collaborative, Multisite and Off-Site Research.'

No

Yes - name entity or institution, contact person(s), and describe their role in the research:

<b>Name of outside entity or institution:</b>
<b>Contact person:</b>
<b>Their role in the research:</b>

**2a. Will the NDSU IRB serve as the IRB of record for these outside entities?**

No,  Attach documentation of IRB/REC approval.


Yes,  Attach letter of permission or cooperation which includes:

- a brief description of the entity's role in the research
- a statement that appropriate training will be completed prior to involvement of human subjects
- a statement that the project will be conducted according to the approved protocol and NDSU policy for protecting research subjects.

**3. Other IRB review:** Is other IRB/Research Ethics Board review required (e.g. from a collaborating institution, research site, tribal board, or national research ethics board, etc.)?

Yes - name of IRB and status of the application:

--

 Attach a complete copy of the protocol reviewed and the IRB/REC's determination.

No.

*NOTE: If permission letter(s) or approval(s) from sites or collaborator(s) are not immediately available, the IRB may approve the protocol provided that:*

- 1) all other requirements are met, and*
- 2) the documentation from the site(s) are forwarded to the IRB prior to initiating research that site.*

**Investigator's Assurance**

The signature(s) below certify that:

- information provided in this application is complete and accurate\*
- the principal investigator has the ultimate responsibility for protecting the rights, safety and welfare of human subjects and the ethical conduct of this research
- each individual listed as principal, co-investigator, or research team member has received the required human research protections education
- each individual listed as an investigator or member of the research team possesses the necessary experience for conducting research activities in their assigned role, and is aware of and will abide by NDSU policies and procedures for the protection of research participants
- research procedures with human subjects will not be initiated until approval has been obtained from the IRB Office
- the research will be conducted according to the protocol approved by the IRB, in accordance with NDSU policies and procedures

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**Principal Investigator signature, date**

*Principal Investigators may submit applications and required supplemental materials electronically via their official NDSU Email account, by copying all co-investigator(s) and the department chair, dean, or director.*



**Monday, March 21, 2016**

---

**Co-investigator(s) signature, date**

As Department Head/Chair, College Dean, or Division Director, I acknowledge that this research is in keeping with the standards set by our department/unit.

---

**Chair, Dean or Director\* signature, and date:**

*\* If the PI or co-investigator is the Department Chair, the College Dean must sign.*

## APPENDIX D. SURVEY TOOL

Q1



This research study is designed to help gain a better understanding of the risk management concepts and issues in 2-year colleges and to develop a risk management taxonomy for higher education. The study involves over 1,300 participants from 66 2-year colleges in Michigan, Minnesota, and Wisconsin. This survey is designed to be completed in approximately 5 minutes.



This research study will address the following three issues.

1. What are the different taxonomies of risk based on level of administrative classification?
2. What are the differences among levels of perceived risk based on the level of administrative position held?
3. What new risk are surfacing in 2-year colleges?

Your assistance greatly appreciated.

---

Q2



Please identify the Administrative Level that best represents the position you hold.



Level One Examples: President, Risk Manager, Vice President, CFO, CEO, Provost, Executive Director, or Executive Business Manager



Level Two Examples: Dean, Director, Business Manager, Department Chair, Program Coordinator, or Department Head.

---

Q3



What state does your college reside?



Michigan



Wisconsin

Minnesota

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Q4



Which group best represents your years of experience in higher education in your current or similar position?



1-5



6-10

11-15

16- greater.



□ Q5

Instructions:



Step 1:

Please select which of the five classifications best represents each risk within 2-year colleges in general.



**Strategic Risk:** That which affect an organization's ability to achieve its goals.

**Operational Risk:** Operational Risk is the risk of loss resulting from inadequate or failed internal process, people and system or from external events.

**Financial Risk:** Loss that may result in loss of fiscal assets.

**Compliance Risk:** Compliance risk is that which affects compliance with externally imposed laws and regulations as well as with internally imposed policies and procedures concerning safety, conflict of interest, and the like.

**Reputational Risk:** That which affects an organization's reputation, brand, or both.

Step 2:

Please select which of the five priorities best represents the level of risk within 2-years college in general.

Priority Levels:

1 – Not a priority

2 – Low priority

3 – Medium priority

4 – High priority

5 – Essential priority

	Column Options ▾	Column Options ▾
	What classification best identifies the risk:	What priority level best identifies the level of risk within 2-years colleges in general for each risk listed:
		1-Not a priority 2-Low priority 3-Medium priority 4-High priority 5-Essential priority
1. Inability to maintain quality workforce	<input type="text" value="Compliance Risk"/>	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
2. Construction cost overrun	<input type="text" value="Financial Risk"/>	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
3. Continuity of operations plan / Emergency operations plan	<input type="text" value="Operational Risk"/>	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
4. Deferred building maintenance	<input type="text" value="Reputational Risk"/>	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
5. Delay in time to market for new programs	<input type="text" value="Strategic Risk"/>	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
6. Failure to keep pace with technology	<input type="text"/>	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
7. Family Educational Rights and Privacy Act (FERPA)	<input type="text"/>	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
8. Inadequate Financial Aid for students	<input type="text"/>	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
9. Fluctuation in customer demand	<input type="text"/>	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
		1-Not a priority 2-Low priority 3-Medium priority 4-High priority 5-Essential priority
10. Health Insurance Portability and Accountability Act (HIPAA)	<input type="text"/>	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
11. Inability to maintaining Higher Learning Commission (HLC) requirements	<input type="text"/>	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
12. Improper alignment of programs for target market	<input type="text"/>	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
13. Improper alignment of student services	<input type="text"/>	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
14. Inability to meet market demand	<input type="text"/>	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
15. Inadequate cash flow	<input type="text"/>	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
16. Increase cost in utilities	<input type="text"/>	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
17. Ineffective security systems	<input type="text"/>	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
18. Lack of effective resources allocation	<input type="text"/>	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>

		1-Not a priority	2-Low priority	3-Medium priority	4-High priority	5-Essential priority
19. Lack of effective safety personal		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. Lack of external partnership development	Compliance Risk Financial Risk Operational Risk Reputational Risk Strategic Risk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. Lack of vision, direction, and focus		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. Inadequate fiscal reserves	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. Misaligned marketing strategies	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. Misaligned organizational structure	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. Strained relations within the community - negative town / gown relationships	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. Outdated academic programs	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27. Occupational Safety and Health Administration (OSHA)	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		1-Not a priority	2-Low priority	3-Medium priority	4-High priority	5-Essential priority
28. Poor succession planning	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29. Safe and friendly environment	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30. Unexpected shift in student demands	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
31. Unfunded mandates	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
32. Wage control	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
33. Inability to stabilize or maintain an administrative leadership team	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
34. Inaccurate student enrollment projections	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
35. Ineffective foundation	<input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		1-Not a priority	2-Low priority	3-Medium priority	4-High priority	5-Essential priority
<a href="#">Click here to edit items...</a>						

Q6

What new risk are surfacing in 2 year colleges?



## **APPENDIX E. RISKS SUBMITTED BY ADMINISTRATORS**

### **Level 1 Administrators' Submissions**

- Competition from 4year public and private institutions within in our traditional market segment.
- An increasing number of compliance issues.
- Personal safety issues both real and imagined.
- Continued disinvestment from legislature and continued unfunded federal, state and HLC mandates.
- Expansion of Title IX scope
- Political volatility and micromanagement
- Performance-based funding measures that penalize open enrollment
- Increase in unfunded mandates - ex; transgender bathrooms, etc.
- Increase in funding required for technology - ex: network security monitoring
- Student demographic projections in the upper Midwest does not support the number of higher education institutions that are currently located in the region. Higher Education is no longer a "growth" industry.
- The retiring baby boomers are going to place a strain on the financial ability for society to continue to support higher education at the level it currently is at. Continue shift of who pays to the student vs the public.

### **Level 2 Administrators' Submissions**

- All the additional reporting requirements put on us (i.e. Gainful Employment both disclosure and reporting), new fund programs within the state and the extra work this requires (i.e. emergency funding).

- Funding.
- Over-focus on workforce training undermines transfer functions.
- The continued decrease of a high school graduation population. This means fewer students will be seeking college futures.
- The continued decline of rural populations is also negatively impacting student enrollment numbers.
- Continued decrease in funding. From both state resources and local taxes.
- Aging faculty who may not have the technological skills needed.
- Student incivility impacting classroom environment (behavior intervention teams springing up).
- Job security.
- Fear of job loss impacting the campus climate.
- Lack of funding.
- Ability to compete with free and open educational resources.
- Embracing teaching and learning shifts due to resistance to change.
- Transferability of credits.
- Underprepared students (including language barriers).
- Accountability related to assessment and continuous improvement.
- Campus cultures.
- Job market is better; we are experiencing a natural decline in enrollment.
- National climate for education at community and technical level (Presidential election year).
- State climate in supporting CTE education.
- Institutional inability to respond to disruptive technology shifts.

- Moving from historical community alignment and operations practices to an effective and dynamic organization.
- Not allowing two-year colleges to offer more than one or two bachelor degrees.
- State funding fluctuations.
- Gainful Employment (GE) regulations.
- Defaulting student loan rates for two-year schools higher than 4 year schools, we have no control over defaulters.
- Shrinking local populations...graduating HS students.
- Continued declining enrollment.
- Continued declining funding.
- Overall academic quality.
- Being more effective in delivering services cheaper.
- Engaging students and parents in career pathways in high demand areas to satisfy industry demand.
- Diminished traditional population base.
- Difficulty identifying and recruiting adult learners to fill the gap.
- Consumer mentality.
- Apathy among students.
- Increased mental health issues among students.
- Lack of resources for undergraduate research.
- Safety of students and staff. Costs to provide safety.
- Lack of money from millage and state appropriations.
- Lack of availability of qualified staff.

- Poor staff retention.
- Declining enrollment and retention.
- Shift in student population and decreasing student numbers.
- Changes in FLSA regulations and compensation.
- Unionization and financial impact of legal issues.
- The need to create a culture of innovation and reduce impact risks from SWOT analysis.
- Changes in requirements for faculty to teach from our accrediting body (HLC) resulting in the need for faculty to return to college for master's courses in their fields of teaching - resulting in additional costs to the Institution.
- This was once (not that long ago) the place where everyone wanted to work and employees referred their friends to apply for openings that only happened as a result of retirement. Now there are no referrals and people are leaving like rats from a burning ship. More than 40 people have left in less than a year. This in an organization of less than 300 employees. I thought this was a trend only in our college but I hear this more and more from other Technical Colleges too.
- Economy drawing prospects into the work force at the same wages as they can earn with a certificate, diploma or degree.
- Lack of perceived value of technical degrees (transportation, construction careers, etc.) by K-12, parents and the public at large.
- Perception that a four-year degree is of more value than a two-year one.
- Technology use and cost.
- Access anytime on any device.
- Integration with multiple software and systems which essentially puts security at risk.

- Accessibility as a proactive vs. reactive accommodation.
- Increased federal and state expectations with fewer funding and greater outcomes.
- Baby Boomer instructors who have not been in the real world work force for decades and not keeping up with changes in their disciplines. How can they truly teach cutting edge topics effectively?
- Faculty unionizing - dividing the institution.
- Lack of "experience" with upper management - not having worked at other institutions - keep the mentality of "this is how it has always been done."
- Threat of for-profit colleges.
- Threat of poor public funding and poor legislative understanding of education.
- Technology advancement and the speed of change/advancement
- New graduate job market need/placement funding for public community colleges.
- Becoming extinct - losing market space to four-year and technical colleges.
- A future that includes no brick and mortar colleges - two-year colleges won't evolve to exist in that model.