Emergency Preparedness Training Perceptions of K–12 School Personnel: A Quantitative Cross-Sectional Study of Two Illinois School Districts

by

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Abstract

An unknown is whether Illinois K–12 school personnel believe to receive the appropriate emergency preparedness training in preparation for possible disasters experienced in the school environment. The lack of information might be considered part of an issue related to safety within the school environment. Revealing the perceptions of school personnel may disclose if the need for safety is being satisfied. The School Personnel Emergency Preparedness Survey was presented to school personnel and a data analysis was conducted. The population invited to the survey included members of the administrations, staffs, and faculties of the 24 schools found within the studied school districts. A sample size of 72 respondents ($N = 72$) was achieved. The study's survey instrument, and resulting data, may be shared with the school districts. The benefit of sharing the data is the possibility of its use by the districts as a disaster preparedness training needs assessment. The data revealed may identify gaps in training and can be used by school leaders to seek or develop appropriate training and implement strategies to raise school personnel beliefs and abilities to respond to possible school disasters.

Dedication

I dedicate this dissertation to my daughters Kristine and Shannon. Kristine was a sophomore at Northern Illinois University (NIU) and needed a ride from dad to go to classes one day in the last month of the Spring semester. While waiting for her classes to finish, I explored the campus and discovered the M.S.Ed. Adult & Higher Education program. After visiting the Department of Counseling and Higher Education and the Veterans Affairs office, I discovered what my academic future would entail. I formally entered the program a few months later, which was the beginning of my graduate studies. I would complete my degree at NIU while Kristine opted to change to another school and program.

Shannon originally attended a few semesters at community college after high school, but decided on a pursuing a full-time career instead. Fifteen years later, Shannon was at a point in her career where a suggestion of obtaining a degree being necessary for future advancement was presented. Shannon joined her father in the online academic world working on her Transportation and Logistics Management Bachelor of Arts degree, while dad was working on his doctorate. Many discussions and words of encouragement were shared for the past several years keeping each other on track and on target.

Acknowledgements

The truth be told, earning a doctorate was never one of my personal and professional goals. Each degree I earned along my lifelong learning academic journey was my last until something in life said “you need more.” Prior to this doctorate, my last degree was an Education Specialist (Ed.S.) Career and Technical Education obtained at the University of Wisconsin-Stout. After the successful defense of my field study, two final comments came from one of the committee members. Dr. Urs Haltinner suggested I take my field study topic and “take it to the next level” and “consider continuing on with a doctorate.” Two years later life indicated a need for one more advanced degree, and the stars all lined up.

I would like to take this opportunity to thank all of the people who offered support and encouragement throughout my academic endeavors at the American College of Education (ACE). First, I would like to thank the instructors at ACE who reenergized my love of learning and teaching. A special thanks goes to Dr. Krista Allison (Dissertation Coordinator) for her assistance and support in helping with the completion of the concept paper.

I need to acknowledge Dr. Tiffany Hamlett (dissertation committee chair) and Dr. Donald DeMoulin (committee member) for the continued support, words of encouragement, and valued comments and suggestions in the development of my dissertation. I truly appreciated the several phone calls with Dr. Hamlett and apologize for some of my rambling on which occurred. There were a few times during this journey where I was ready to leave with an all but dissertation. Dr. Hamlett would not let this situation happen.

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Chapter 1: Introduction

Headlines regarding various types of disasters affecting schools are becoming disturbingly familiar. In the first few weeks of September 2017, examples include “Amid brutal storm, educators gave shelter, hands-on care” (Superville, Gewertz, & Loewus, 2017, para. 1), “Spokane school shooting: Custodian hailed for his heroism” (Fryer, 2017, para. 1) and “7 arrested in connection with Malaysia school fire that killed 21 students” (Ahmad, Woon, & Sidhu, 2017, para. 1). Other disasters experienced in schools during September 2017 include a Mexico City earthquake where 20 children died in the collapse of the school (Hartley-Parkinson, 2017). In Mattoon, Illinois a teacher was credited for disarming a student and stopping a shooting incident at the school (Ross, 2017). Each of these five disasters occurred during the school day with children present.

The injuries and lives lost in these disastrous events of September 2017 included school personnel and students. In a study of the emergency preparedness of three Los Angeles County public school districts, a revelation was school personnel would often be the first responders to on campus events even though school personnel are not part of a conventional emergency response organization (Kano, Ramirez, Ybarra, Frias, & Bourque, 2007). Federal Emergency Management Agency (FEMA) Director Craig Fugate (2017) has reported the whole community is one of the greatest resources responding to a disaster, and a first responder is likely to be a neighbor.

According to Bob Hull (2000), an assistant superintendent of operations of a Kansas school district and certified Kansas Emergency Manager, the potential for a school crisis exists every day classes are in session. Hull notes some school personnel reject the idea of such traumatic events happening in the individual’s school. Hull believes the real question to be

answered is when an emergency does occur, how prepared are personnel to handle the emergency. Revelations of this study may identify gaps or weaknesses in the training of school personnel in emergency preparedness and the roles to be performed should any of the disastrous event occur at school. Additionally, sharing the results of this study may provide a basis for local policy change or enhancement, and the development of emergency preparedness training for Illinois schools.

Found in this chapter are the background, statement, purpose and significance of the study which is to determine the emergency preparedness training received by school personnel of two school districts found in northeastern Illinois, and the interest of the personnel in receiving emergency preparedness training specifically designed for the Illinois school environment. The research question guiding the study is presented and the theoretical framework which grounds this study is identified and defined. Definitions are included as some terms related to disasters and emergency preparedness have different meanings based on context or usage by a particular agency or organization, and some are evolving. Assumptions, scope and delimitations, and limitations related to the study are offered. The summary recapitulates the main points of the chapter.

Background of the Study

Various media outlets report on current events, disseminate information to the public, and play a leading role in the social construction of the problem after a disaster. Perceptions of the authorities' and public's perceptions of disasters and the risks involved are influenced by the media. One positive result of this media exposure is the increased or heightened awareness of a need to prepare for emergencies and disasters (Vasterman, Yzermans, & Dirkzwager, 2005).

Many different types of disasters can affect a school and fall into several categories. An important note is school disasters, for the most part, are unpredictable and can occur with or without any warning. On May 20, 2013, in Moore, Oklahoma an Enhanced Fujita 5 (EF5) tornado struck at 2:56 p.m. Central Daylight Time with approximately 16 minutes warning. In the case of this deadly natural disaster, the Plaza Towers Elementary and Briarwood Elementary Schools were demolished while teachers and students were present. Twenty-four people were killed in this tornado. Seven of the 10 children killed were present at Plaza Towers Elementary School (Kuligowski, Phan, Levitan, & Jorgensen, 2013).

Technological (man-made) are another category of disasters of which schools can experience. On April 17, 2013 in West, Texas the West Fertilizer Company suffered an explosion and fire. A total of 150 buildings in the area were destroyed, including the nearby West Intermediate School and West High School. What was fortunate is this incident occurred at 7:51 p.m. when students and school personnel were gone for the day, and no evening activities were scheduled (C. Arnold, 2016; Tinney, Denton, Sciallo-Tyler, & Paulson, 2016). In the Tinney et al. (2016) report, the conclusion included the U.S. Chemical Safety and Hazard Investigation Board's investigation of this disaster highlights potential problems when schools are located near facilities storing hazardous chemicals. Though this study does not address new construction or selecting locations for schools, an important fact to know is some schools already exist near these types of environments.

The third category of disasters which can affect schools are called intentional disasters. Active shooter incidents are examples of an intentional disaster. The Federal Bureau of Investigation (FBI) reported 45 active shooter incidents were experienced at schools and institutions of higher education between 2000 and 2015 (Blair & Schweit, 2014; Schweit, 2016).

An average of two shootings a month occurred at K–12 schools between 2013 and 2015. Of those incidents, children were the actual shooters in 39 out of the 70 incidents (Everytown for Gun Safety Support Fund, 2018).

Federal government reporting of school shooting incident numbers since 2015 are now starting to be reported. In April 2018, the U.S. Department of Education Office for Civil Rights (OCR) released the 2015–2016 Civil Rights Data Collection report on school climate and safety (USDE, 2018). In the report, it is revealed 0.2% of all schools (approximately 250 schools) reported a minimum of one incident of a school-related shooting. School-related homicides were reported in 0.1% (over 100 schools) which involved faculty, staff or students. Reports by news media indicate as of March 26, 2018, 24 people have been killed and more than 40 injured in shootings at elementary, middle and high schools in the United States (Gonzalez, 2018). The accuracy of those numbers may be questionable. In *The School Shooter: A Threat Assessment Perspective*, FBI Supervisory Special Agent Mary Ellen O'Toole (2009) related even though school shootings are extensively covered in the news media, reporting of the incidents may not be comprehensive, precise, or balanced.

Schools should be a place of safety for teaching and learning, free of crime and violence (Musu-Gillette, Zhang, Wang, Zhang, & Oudekerk, 2017). The sentiment of Musu-Gillette et al. should be extended to include safety from possible disasters and catastrophic effects. The study addresses perceived problems associated with disasters, school personnel and students, and the school environment.

Statement of the Problem

The problem associated with this study is determining the level of preparedness of K–12 school personnel perceive is necessary to be equipped and organized to handle various

emergency situations. This study proposed to examine Illinois K–12 school personnel perceptions of school emergency preparedness, personal emergency preparedness in the school, and receiving, and receiving the appropriate emergency preparedness training in preparation for possible natural, technological, and intentional disasters experienced in the school environment. A review of the publicly available literature reveals within Illinois a gap may exist between state directives, federal directives, guidelines of school disaster plans, and the actual training of school personnel to carry out the plans.

The School Safety Drill Act (2005) establishes minimum requirements and standards for the conduct of school safety drills and the reviewing of school emergency and crisis response plans. The act encourages cooperation between schools and first responders in order to work together for the safety of children. Of note, the communities and schools may exceed the requirements and standards set forth in the act. Offices such as the Illinois State Board of Education (ISBE) and the Illinois Office of the State Fire Marshal are directed by the act to cooperate and coordinate with education, emergency management, and first responder officials to develop and implement one common set of rules to be administered under the act. Clear and definitive guidelines are to be developed for school districts, private schools, and first responders as to how to develop school emergency and crisis response plans, how to exercise and drill based on such plans, and how to incorporate lessons learned from these exercises and drills into school emergency and crisis response plans. This act addresses the creation or implementation of common rules, guidelines, drills, and emergency and crisis response plans, but does not address training related to emergency preparedness.

Public Act 98-0695 (2014) created the School Security and Standards Task Force. The function of the task force, created within the state Board of Education, was to study the safety

and security of Illinois schools, make proposals, and draft standards for use by schools in attempts to provide a safer learning environment. Originally, the task force was set to expire on July 1, 2015. Public Act 99-0065 amended Public Act 98-0695 and extended the expiration date of the task force to July 2, 2016 (Public Act 099-0065, 2015). In the January 2016 *Report to the Illinois Governor and the General Assembly*, the task force recommended two legislative measures:

1. The Illinois School Security and Standards Task Force should be extended for an additional year in its current form;
2. In order to provide better evaluation of real time staff training, the School Safety Drill Act should be amended to require one of the existing annual drills to be unscheduled and random. (School Security and Standards Task Force, 2016a, p. 5)

No actions were taken by the governor or the general assembly after the January report.

A final report to the ISBE was issued on July 1, 2016. Dismissal of the task force occurred on July 2, 2016 as per the public act (Public Act 099-0065, 2015). Within the final report (School Security and Standards Task Force, 2016b) on page 5, the task force recommended the following of best practices in physical plant security, training, prevention, and security plan policy development. Specifically identifying training, the task force recommended the continuous review and execution of the School Safety Drill Act. On page 6, the report further recommends the implementation of an Emergency Operation Plans which includes security vulnerability evaluations, staying up on emergency preparedness best practices, and the creation and implementation of procedures for students and staff to follow in the event of a disaster to include consistent training. A review reveals as of January 2019, nothing new proposed in the

two reports submitted by the School Security and Standards Task Force has been addressed or implemented and the status quo remains.

State school safety centers are a state agency or organization charged with keeping schools safe (Carlton, Wyrick, Frederique, & Lopez, 2017). When describing the states' roles in school safety, the U.S. Department of Justice authors report a variety of activities supporting school safety are carried out by the individual states. The activities include providing training, resources and guidance, on a wide range of topics to the schools and school districts (Carlton et al., 2017). In Illinois, the state school safety center is called the Educational Safety and Security Center (ESSC). A statement on the ESSC website includes:

> The Educational Safety and Security Center (ESSC) is being developed as a tool at [*sic*] assist administrators, teachers and other school service personnel in locating resources relevant to school safety and emergency response. As the ESSC will be adding training, guidance and resource features over the next several months, we encourage you to revisit this website periodically. (ISBE, n.d., para. 1)

During the time of this study, the ESSC website has no posted or last revised date to be found. A viewing of the various document links imbedded in the web page reveals dated information. Hyperlinks found on this page lead to other ISBE web pages which appear to be just as dated. A recommendation to schools is found in the ESSC website introductory paragraph (ISBE, n.d.). The recommendation is proactive work with law enforcement, fire departments, local public health departments and community groups aids in ensuring safety planning and response is all-encompassing of all appropriate community partners. The same advice is found in the *Guide for Developing High-Quality School Emergency Operations Plans* (USDE, 2013) as

first responders have responsibilities in school emergency operations plans to provide a cohesive, coordinated response.

An important point which should be understood is first responders such as police, fire, and emergency medical services might be unable to get to disaster scenes immediately. This situation may be a result of the lack of capacity to mitigate certain disasters, or the agency may be experiencing some degree of inoperability due to the catastrophic impact of some events (FEMA, 2015b). A study conducted in Rhode Island revealed due to the limited training and experience of its school personnel, there is a critical need for purposeful and coordinated response between schools and local emergency agencies (Alba & Gable, 2011).

Purpose of the Study

The purpose of this study was to discover how the administrations, staffs, and faculties of two school districts perceive the state of emergency preparedness in schools, school personnel's personal preparedness, and the school-related emergency preparedness training offered, received and desired. This cross-sectional research design utilized a survey approach. A literature and archival data review were conducted and the resulting information used to design closed-ended questions for a survey instrument. A pilot study and coordinating effort was conducted with the leadership of the two studied school districts on the draft survey instrument design, and the implementation of the final survey instrument to district and school personnel. The resulting data from the surveys was examined and analyzed.

Potential gaps between what emergency preparedness training received, perceptions of this training, and emergency preparedness training desired were revealed. This study can additionally be viewed as a training needs analysis, which is a systematic process used to determine organizational and individual training needs (Nazli, Sipon, & Radzi, 2014). School

and school personnel training needs can be derived as a byproduct of the study's survey and resulting data. Additionally, the findings of this study could be used by district and school leaders to develop and implement strategies to raise the self-efficacy of school personnel in emergency preparedness (Perkins, 2018).

Significance of the Study

The significance of the study provides information on the current level of emergency preparedness training received by the administrations, staffs, and faculties of two suburban Chicago area school districts. Additionally, the data discovered and to be shared with the school districts offers the perceptions of school personnel regarding this emergency preparedness training, and the level of interest in receiving additional or enhanced emergency preparedness training specifically designed for the Illinois school environment.

On March 30, 2011, Presidential Policy Directive-8 (PPD-8) was issued. In the directive, the president of the United States reveals national preparedness is an obligation shared by the entire nation to include citizens, the private and nonprofit sectors, and all levels of government (Obama, 2011). Found in the National Preparedness Goal (U.S. Department of Homeland Security, 2015), the concept of the whole community being involved with all aspects of addressing threats and hazards faced by the nation is present and echoes PPD-8. Current disastrous events occurring in the United States, and around the world, reveals a soft target such as a school and its personnel needs to be prepared (Fennelly & Perry, 2017). The appropriate training can prepare school personnel for the unexpected in the school environment, lessen the effects of some catastrophes and even lead to the prevention of others.

Looking as far back as the early 20th century, reports indicate schools and universities in Illinois have experienced weather-related natural disasters and intentional disasters involving

active shooters (Newton-Matza, 2014). The resulting damage, destruction, injuries and lives lost varied in each of the disasters. According to Mutch (2014), the literature reveals the preparation of teachers and school leaders for roles in crisis management is lacking. The results of the study are to be shared with the studied districts. From the findings, possible updates or changes may be indicated to district policy and school disaster plans regarding safety, emergency preparedness, and training. The information discovered can be used as a basis to design a program of emergency preparedness training of K–12 school personnel for possible implementation in the future.

Research Question and Hypothesis

A research question is the fundamental core of a study (Tully, 2014). To guide this study, the research question is: What are the differences in perceptions of emergency preparedness between K–6, 7–8 and 9–12 grade-level school personnel in two northeastern Illinois school districts? The hypothesis guiding this study is:

Ho: There are no significant differences in perceptions of emergency preparedness between the K–6, 7–8 and 9–12 grade-level school personnel in two northeastern Illinois school districts.

Ha: There are significant differences in perceptions of emergency preparedness between the K–6, 7–8 and 9–12 grade-level school personnel in two northeastern Illinois school districts.

Theoretical Framework

According to the Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector (GADRRRES), the Comprehensive School Safety Framework (CSSF) provides an all-inclusive approach to reducing risks from hazards to the education sector. It is

accomplished by addressing three pillars of school safety: Safe Learning Facilities, School Disaster Management, and Risk Reduction and Resilience Education (GADRRRES, 2017b). Within this framework, the key actors in Pillar 1, Safe Learning Facilities, include personnel directly involved with safe site selection, design, construction and maintenance such as education and planning authorities, architects, engineers, and builders (GADRRRES, 2017a). Facilities are not being addressed in this study. The intention of this study is to discover the preparedness and training of the school administration, staff and faculty in existing facilities, not about building new facilities. The key actors in Pillar 2, School Disaster Management Responsibilities, and Pillar 3, Risk Reduction and Resilience Education, include administrations, staffs and faculties which have key responsibilities in those areas (GADRRRES, 2017a). The responsibilities found in Pillar 2 and Pillar 3, as applied to the problem identified in the study, are taken into consideration.

Pillar 2: School Disaster Management Responsibilities

School safety through disaster management planning and processes is addressed in Pillar 2. Included in the areas of focus are assessment and planning, response skills, educational continuity planning, contingency planning and standard operating procedures (GADRRRES, 2019a). According to the CCSF, administrations, staffs, and faculties have key responsibilities related to school disaster management in four areas:

- Identify sub-national and school-based risk reduction and resilience focal points to be trained as leaders and champions of school safety;
- Develop, train, institutionalize, monitor, and evaluate school committees. These committees should be empowered to lead identification and mapping of all hazards of schools and local community, and action planning for ongoing risk reduction and

preparedness activities. Encourage staff, students, parents, and community stakeholders to participate in this work;

- Adopt standard operating procedures as needed for hazards with and without warnings. These include building evacuation, safe assembly, evacuation to safe haven, shelter-in-place, lockdown, and safe family reunification. Adapt standard operating procedures to the specific context of each school; and
- Learn safety rules for specific hazards faced. Conduct regular school-wide and community-linked simulation drills to practice, critically evaluate, and improve on response preparedness. (GADRRRES, 2017, p. 4)

Pillar 3: Risk Reduction and Resilience Education

School safety through education activities and systems is addressed in Pillar 3. Included in the areas of focus are formal curriculum integrations and infusion, teacher training and staff development, and extracurricular and community-based informal education (GADRRRES, 2019b). According to the CCSF, administrations, staffs, and faculties have key responsibilities related to risk reduction and resilience education in seven areas:

- Engage students and staff in real-life school and community disaster management activities, including mapping hazards, developing school-based contingency plans, and implementing regular school drills for relevant hazards;
- Develop “scope and sequence” to detail learning outcomes and competencies to integrate risk reduction and resilience into regular curriculum, at all levels;
- Infuse risk reduction throughout the curriculum and provide guidelines for integrating risk reduction and resilience into carrier subjects;

- Develop quality teaching and learning materials for students and teachers. Address all dimensions of risk reduction education: conducting multi-hazard risk analysis (including those with natural and human causes, and violence and conflict); understanding risk drivers and risk mitigation measures; identifying and disseminating key messages for safety and preparedness; building community risk reduction capacity; and developing social cohesion, and a culture of safety and resilience;
- Provide pre-service and in-service teacher training on risk reduction curriculum materials and methods; and
- Develop strategies to encourage teachers to integrate these topics into formal curriculum, as well as non-formal and extracurricular approaches with local communities. (GADRRRES, 2017, p. 5)

Definitions of Terms

Terms related to school emergency preparedness found in this study are defined in this section. This is not a complete or full presentation of emergency management related terms and definitions. The sources where the definitions are derived include the United States Code, federal agencies and organizations, international organizations, and nongovernmental organizations.

Active shooter. An individual trying to kill people using a weapon. Though the word shooter is in the term, the weapons used are not limited to firearms. Most often the attempt is in a confined and populated area. The individual may not follow a pattern or have a specific process in selecting victims (“Active Shooter,” 2019; U.S. Department of Homeland Security, 2008).

Community Emergency Response Team (CERT). A program which instructs volunteers in disaster preparedness. Included in the training is the identification of, and preparation for, possible hazards within an area or community. Basic disaster response skills to be developed or enhanced includes fire safety, light search and rescue, team organization, and disaster medical operations (Ready.gov, 2018).

Disaster. A hazardous event which causes a severe disruption of the functioning of a community or society. The event may contribute to loss of people and materials, and may impact economic and environmental conditions of the community or society (United Nations Office for Disaster Risk Reduction [UNISDR], 2016).

Disaster/emergency management. The ongoing process applied to disastrous incidents which endanger or jeopardize life, property, normal operations, or the environment. The phases applied to the practice include the prevention, mitigation, preparation for, response to, maintenance of continuity, and recovery from a catastrophic incident (National Fire Protection Association, 2016).

Disaster preparedness. The groundwork conducted in anticipation of disasters and the efforts needed in the reduction of their catastrophic effects. The measures include the prediction of, prevention, mitigation on the susceptible populations, response to, and successfully managing the after-effects of the disaster (International Federation of Red Cross and Red Crescent Societies, 2018).

Emergency preparedness. Actions and procedures or processes developed, or employed, to prepare for or to diminish the effects of a disaster upon the general public. The activities and measures address the immediate emergency conditions created by the disaster. Included are

implementation of the emergency repairs necessary and the restoration of vital utilities and facilities affected by the disaster (The Public Health and Welfare, 2016).

Intentional disaster. Deliberate actions on the parts of individuals or groups against persons or society in general and include war, acts of aggression, and acts of terrorism. The actions can include the use of conventional weapons such as firearms or explosives. The use of unconventional weapons includes the application of chemical, biological, radiological, or nuclear materials (FEMA, 2011).

Man-made disaster/hazard. A type of disaster produced entirely or largely by human activities and choices. This term does not include incidences of war or other situations such as riots, which are subject to international humanitarian law and national legislation. Technological disasters are usually thought of as a subgroup of man-made disasters (UNISDR, 2018).

Mitigation. Taking continuous actions to lessen or remove long-term risk to people and property from hazards and their effects. The capabilities and abilities needed to lessen loss of life and property by decreasing the effect of disasters. An analysis, reduction and insurance against risk (U.S. Department of Homeland Security, 2015; “What is Mitigation?”, 2018).

Natural disaster. Any catastrophe triggered by natural incidents which causes, or which may cause, considerable damage or harm to civilian property or persons. The incidents are not human-induced, and are weather-related or geology-related. The incidents include, but are not limited to, hurricanes, tornadoes, storms, floods, high or wind-driven water, tidal waves, tsunamis, earthquakes, volcanic eruptions, landslides, mudslides, snowstorms, droughts, and fires (The Public Health and Welfare, 2016).

Soft target. A building, site or location, usually unguarded, where large numbers of people come together. A soft target offers the potential for wrongdoers to produce mass

casualties. Soft targets include schools, houses of worship, sporting arenas and shopping malls (Bradford & Wilson, 2013).

Technological disaster. A catastrophic incident caused by an error in the control of, or a malfunction of, technology which may cause destruction, death, pollution, and environmental damage. Incidents may be a result of an accidental or deliberate human act, or are a result of being triggered by natural events (FEMA, 1993; Gunn, 1990).

Workplace violence. Behavior occurring at a work site which includes acts or threats of physical violence, harassment, intimidation, or other hostile and disruptive behavior. The level ranges from verbal threats and abuse to bodily assaults and even killings. The violence can affect and involve employees and non-employees present at the workplace (Occupational Safety and Health Administration, 2017).

Assumptions

The assumptions made in this study include the survey questions are understandable. A pilot study, utilizing the questionnaire, was conducted with district personnel and verified the wording and understandability of the survey. The survey developer endeavored to make the questions and statements understandable for the targeted audience to gauge opinions, behaviors, and characteristics for this study. Efforts were made to receive accurate information, avoid a large number of nonresponses, and avoid a high refusal of completion of the survey (Rea & Parker, 2014). Other assumptions included are the research participants are honest in responses to the surveys and are representative of Illinois K–12 district and school personnel. An assumption made was the survey respondents' perceptions of school emergency preparedness are understood and nonbiased.

Scope and Delimitations

This study focuses on the experiences and perceptions of the administration, staff and faculty, of two northeastern Illinois public school districts, of emergency preparedness training for the school environment, at the time surveyed. The delimitations include the use of only two school districts which make up all public schools from Grades K–12 within a limited geographic area. The intent was to offer the survey, to the target audience, approximately two months prior to the ending of the current school year to avoid school-related conflicts and other possible distractions in the hopes of maximum participation. An understanding is the results cannot be assumed true for all school districts and schools within Illinois or elsewhere in the United States.

Limitations

The scope of this research was limited to two northeastern Illinois public school districts. The sample of administrations, staffs and faculties was restricted to the 24 schools found within the two districts which service all or part of 11 northwest suburban communities near Chicago. Affiliation with the studied school districts, other than residing within the boundaries of both districts, does not exist. There is an acknowledgement of a conscious effort to avoid bias due to the extensive experience in emergency management and emergency preparedness. The experience includes a period as a training coordinator and instructor of disaster-related topics and training for the Palatine Emergency Management Agency, and as an Illinois Emergency Management Agency (IEMA) instructor of the CERT Train-the-Trainer course. The Palatine Emergency Management Agency headquarters and the main offices of the two studied school districts are located in the same village.

Chapter Summary

The problem identified was to examine the level of emergency preparedness Illinois K–12 school personnel believe is appropriate in preparation for possible natural, technological, and intentional disasters experienced in the school environment. The purpose of the study was to determine the level of emergency preparedness training received by the administrations, staffs, and faculties of two northeastern Illinois public school districts, and to determine the interest in receiving emergency preparedness training specifically designed for the Illinois school environment. A quantitative research question was stated and definitions of key terms are included. The study could additionally be considered a training needs analysis (Nazli et al., 2014) and the results shared with the two studied districts. A comprehensive training program in emergency preparedness for the school environment may be considered achievable and necessary, resulting in its design and implementation in the future.

Chapter 2: Literature Review

This study proposed to investigate the perceptions of Illinois K–12 school personnel of school and individual emergency preparedness and in receiving the appropriate emergency preparedness training in preparation for possible natural, technological, and intentional disasters experienced in the school environment. The purpose of this study was to examine the level of emergency preparedness training for the school environment received by the administrations, staffs, and faculties of two suburban Illinois school districts, school personnel perceptions of the school emergency preparedness, and the level of interest in receiving additional or enhanced emergency preparedness training specifically designed for the Illinois school environment.

According to Kano et al. (2007), the readiness and extent to which schools are prepared for emergencies and disasters within the United States is not well known. Though the supposition was made 11 years ago, the questions still exists. David Schonfeld, director of the National Center for School Crisis and Bereavement, makes a sweeping generalization with "school systems and their students remain unprepared to deal with disasters, whether natural or man-made" (as cited in Altevogt, Reeve, & Wizemann, 2014, p. 20). In *Safer, Stronger, Smarter: A Guide to Improving School Natural Hazard Safety* (FEMA, 2017), an emphasis is made of all key school stakeholders being included in school training activities to build awareness and understanding of specific disaster response protocols and plan procedures. Included are regular and new staff, and those who are not on campus on a regular basis (e.g., bus drivers, substitute teachers).

The literature and archival data reviewed for this study relates to school safety and emergency preparedness from sources which include the federal government, the state of Illinois, and the two studied school districts. Included in the reviews were relevant or related studies

conducted throughout the United States and internationally. The discovered studies address the perceptions of school personnel employed in a particular position (e.g., principals, teachers, counselors, school nurses), and a topic related to school emergency preparedness. Examples of narrow-focused studies (a single position or category of school personnel and one specific type of disaster or emergency) encountered include the perceptions of teachers and active shooter incidents (Embry-Martin, 2017; Hartz, 2018; Rider, 2015). Other studies located were more general on the types of school disasters, but limited on the audience addressed. Examples of these studies include the perceptions of school social workers (Werner, 2015), school counselors (Werner, 2014), or school nurses (Rebmann, Elliott, Artman, VanNatta, & Wakefield, 2016).

What appears to be lacking are studies of the perceptions of all school personnel (administration, staff and faculty) in overall school emergency preparedness. One inclusive study found was conducted on rural and urban school districts in Louisiana (Steeves, Metallo, Byrd, Erickson, & Gresham, 2017). FEMA (2018) revealed preparedness is a shared responsibility which includes the whole community. The whole community includes people from all walks of life (families, individuals, businesses, faith-based and community organizations, schools) and all levels of government (local, state and federal) in the creation of preparedness documents.

Within these preparedness documents, responsibilities of the stakeholders (the community) are reflected in the content of the materials. The concept of shared responsibility should be extended to the whole community found within a school (all school personnel). Every person in and around a school has a stake in what transpires during a school emergency or disaster. A disservice to the whole school community would be made to only include principals and teachers in the planning and training process, and only the perceptions of emergency

preparedness of this subsection of school personnel evaluated and considered. All personnel in a school have a stake in what transpires during a school emergency or disaster.

Found in this chapter is the literature search strategy, the theoretical framework used to guide this study and a review of the research literature. The literature search strategy includes a variety of databases and search engines used in the location of academic and other related articles and information regarding school emergency preparedness and training. Critical components of Maslow's (1943) hierarchy of needs and the CSSF (GADRRRES, 2017a) were considered and used as the theoretical framework. The literature reviewed spans academic articles as well as a detailed review of K–12 school emergency preparedness plans, policies, procedures and guidelines from federal, state and local sources. Current emergency preparedness programs and courses offered by governmental agencies, nongovernmental organizations (NGOs), and public and private postsecondary institutions were examined.

Literature Search Strategy

The literature search strategy, on the topic of emergency preparedness and training of K–12 school personnel, included an in-depth review of emergency preparedness policies, procedures and guidelines from state and federal sources. Published information of the two studied school districts regarding current programs, policies and procedures concerning emergency preparedness and emergency preparedness training were examined. Each of the school districts' Emergency Operations and Crisis Response Plan were swotted. A review of scholarly articles and studies related to schools and emergency management, preparedness and training was conducted. The literature provides a number of sources and resources for background information and understanding into developing and implementing school disaster plans, state specific planning and training requirements for schools, and additional research

resources from federal, state, and local governmental agencies, NGOs, and public and private postsecondary institutions (Mutch, 2014; Rebmann et al., 2016; Ronan, Alisic, Towers, Johnson, & Johnston, 2015; Wang, 2016).

The literature search was accomplished using the American College of Education (ACE) electronic library databases, EBSCOhost, ProQuest, Google Scholar, SAGE Journals Online and state, federal, public organization and private organization websites. A consult of the ProQuest Dissertations & Theses Global database revealed studies with several theories intersected with the epistemological values brought to this study (Grant & Osanloo, 2014). Key words and phrases used in the literature search include *campus safety*, *campus violence*, *disaster preparedness training*, *emergency preparedness training*, *risk reduction*, *school disaster management*, *school crisis preparedness*, *school disaster preparedness*, and *school emergency preparedness*.

Theoretical Framework

Within this study, Maslow's (1943) hierarchy of needs is the theoretical framework considered along with the CSSF (Cortez, 2017) as a model. The theory and model are used in addressing the research problem, reviewing and evaluating the two districts' Emergency Operations and Crisis Response Plans, and developing the survey instrument to be offered to the administrations, staffs, and faculties of the studied school districts. As part of the literature review, published studies related to school emergency preparedness were sought and the frameworks of the studies examined for applicability to this study.

Maslow's Hierarchy of Needs

A reoccurring theory found in recent school emergency preparedness studies is Maslow's hierarchy of needs (Connelly, 2017; Dixon, 2014; Rinaldi, 2016; Riojas, 2014; Steele, 2016).

Psychologist Abraham Maslow (1943) described a theory of human needs in his article *A Theory of Human Motivation*. Maslow suggests people, and decisions made, are driven by five key traits: physiological, safety, belongingness/love, esteem and self-actualization. Historically, a graphic representation of Maslow's theory entailed a hierarchical pyramid with the most basic need (physiological) at the base of the pyramid and the highest need (self-actualization) at the apex. Satisfying the need for safety, the second level in Maslow's hierarchy of needs, is a focus in this study.

Martin and Loomis (2013) defined the need for safety and security, in the context of Maslow's hierarchy, as "the feeling people get when they know no harm will befall them, physically, mentally, intellectually, or emotionally; security is the feeling people get when their fears and anxieties are low" (p. 71). The majority of the recent school-related emergency preparedness studies discovered, which applied Maslow's hierarchy within the study's theoretical framework, address the level of safety as a relation to students and student learning and not the level of safety of the school personnel (Connelly, 2017; Rinaldi, 2016; Riojas, 2014).

Two studies were found which explored a subsection of school personnel (teachers or administrators) and the target audience's perceptions of safety within the schools (Dixon, 2014; Steele, 2016). The two studies were limited in scope and only addressed perceptions of the target audience as related to recent school shootings (Dixon, 2014) or in preparation to manage or cope with an active shooter incident (Steele, 2016) after receiving active shooter training. The research addressed Maslow's second level of satisfying the need for safety, but for a single audience and for a single disaster or crisis. Other school personnel present in those studied schools and districts were not a consideration. Within this study of Illinois schools, a more diverse target audience of school personnel (administration, staff and faculty) perceptions with a

broader range of hazards or emergency situations which may be encountered in the school environment was explored.

Comprehensive School Safety Framework

The CSSF presented an all-inclusive methodology to reduce risks from all hazards to the education sector by addressing three pillars of school safety (PreventionWeb, 2018). *Comprehensive School Safety—A Global Framework in Support of the Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector and the Worldwide Initiative for Safe Schools* (GADRRRES, 2017a) was originally developed in preparation for the 2015 Third United Nations World Conference on Disaster Risk Reduction at Sendai, Japan. This global framework supports two initiatives: the Worldwide Initiative for Safe Schools and the Global Alliance for Disaster Risk Reduction and the Resilience in the Education Sector (Cortez, 2017). CSSF provided a broad approach to reducing risks from all hazards to the education sector by addressing three pillars of school safety: Pillar 1, Safe Learning Facilities; Pillar 2, School Disaster Management; and Pillar 3, Risk Reduction and Resilience Education (GADRRRES, 2017a).

Pillar 1 is not addressed as the key participants of the Safe Learning Facilities pillar are those who are involved in the choices about the selection of safe sites, and the facility design, construction and maintenance (GADRRRES, 2017a). Though unsafe facilities can pose extreme danger to school personnel and students (Lai, Esnard, Lowe, & Peek, 2016), and is an important consideration in school overall emergency preparedness, this topic is not being addressed nor is Pillar 1's target audience (key actors). The key actors within the CSSF Pillar 2 and Pillar 3 include school administrations, staffs and faculties. Pillar 2 and Pillar 3 are taken into consideration in the review of each of the Illinois school district's Emergency Operations and

Crisis Response Plans and in the development of the survey instrument to be dispensed to the administrations, staffs and faculties.

The CSSF model has been applied in recent emergency preparedness studies. In one such study on schools and disasters, Lai et al. (2016) utilized the CSSF's three pillars of school safety and proposed a fourth pillar of Mental Health Assessment and Intervention. In the Lai et al. study, the CSSF was used to highlight the role of safe schools in protecting students and adult school personnel from disasters' immediate threats and long-term consequences. Another utilization of the CSSF was in a study by Amri, Bird, Ronan, Haynes, and Towers (2017) of the application of disaster risk reduction education for children in Indonesia. Amri et al. framed survey questions, using CSSF, to study perspectives of school personnel, children and NGOs.

School disaster management responsibilities. Responsibilities of this pillar include the development, training and evaluation of school leaders and school committees in risk reduction and preparedness activities. The development, training and evaluation should be promoted to include the involvement of school staff, students, parents, and community stakeholders. Schools adopt an emergency preparedness standard operating procedure specific to the setting and environment of each school (GADRRRES, 2017a).

In the *Guide for Developing High Quality School Emergency Operations Plans* (USDE, 2013), school disaster management responsibilities are addressed in the planning principles and process of emergency operations planning. The planning principles include: leadership support at the district and school levels; consideration of a wide variety of possible threats and hazards; provisions for the access and functional needs of the whole school community which includes children, individuals with disabilities and those with diverse religiously, racially, and ethnically backgrounds; consideration of all settings and times, inside and outside the school day, on or off

the school campus; and a collaborative process is used in the creation and revision of the emergency operations plan.

The guide accentuates the core emergency operations planning team identified should include a wide range of school personnel, students and parent representatives, and individuals or organizations which represent and serve the needs of those with disabilities (students, staff and parents). Training of the plan stakeholders and school staff, along with the familiarization of the students, staff, and community partners with the plan, is of great importance. An emphasis is made which all personnel involved in the emergency operations plan know their particular roles and responsibilities at all phases of an emergency, including before, during and after the incident (USDE, 2013).

Risk reduction and resilience education. Responsibilities of this pillar include developing exceptional teaching and learning materials for students and teachers. To be included are risk reduction and resilience learning outcomes and competencies in the institution's standard curriculum, the teacher's formal and nonformal curriculum, and extracurricular activities. Preservice and in-service training on risk reduction curriculum materials and methods is provided to teachers (GADRRRES, 2017a). A revelation is even though teachers express interest in delivering disaster risk reduction and resilience education, there is an additional concern of not being trained or trained sufficiently. As a result, there is a possibility of aggravating problems for children and youth. The concern of not being trained has been identified as a deterrent to the commitment to, and implementation of, teacher training programs in classroom and school settings (Ronan et al., 2016).

Research Literature Review

Perceptions of the emergency preparedness training received by Illinois K–12 school personnel, in preparation for possible natural, technological and intentional (human-induced) disasters experienced in the school environment, is unknown. This study included an in-depth review of K–12 school emergency preparedness policies, procedures and guidelines from state and federal sources. An examination was conducted of scholarly research articles and resources related to school emergency management as well as current programs and courses offered by federal, state, and local governmental agencies, and NGOs. Additional literature reviewed consists of published information of Community Consolidated School District 15 (CCSD 15) and Township High School District 211 (THSD 211) regarding current programs, policies and procedures concerning emergency preparedness and emergency preparedness training. Included are the two districts' Emergency Operations and Crisis Response Plans, which are an important aspect of a school's overall emergency preparedness and are developed with an overall concept of safety is the responsibility of all school personnel (Heilman, 2015).

Many of the sources and resources emphasize the importance of lessons learned in emergency preparedness plan development and training. An applicable quote attributed to Max Mayfield, former director of the National Hurricane Center, is "Preparation through education is less costly than learning through tragedy" (Kumar, 2018, p. 99). Of note is schools can play an important role in taking disaster lessons learned and by repeating disaster drills and training for disaster preparedness by school personnel (Takahashi et al., 2015). Plümper, Flores, and Neumayer (2017) identified the concept of learning from disasters as a double-edged sword. The post-disaster knowledge can increase public investment and prevent large scale damage and loss of life. The knowledge can likewise inspire a false sense of safety in the belief all mitigation

factors are in place. Alexander (2015) pointed out even though many publications have the phrase lessons learned in their titles, it is not a guarantee a lesson was truly learned.

Federal Literature Related to School Emergency Preparedness

Many different federal government agencies have a role in supporting school emergency management and preparedness within the United States. The assistance of state and local school emergency preparedness initiatives comes in the form of guidance, training, equipment and funding to facilitate districts and schools to effectively respond to emergencies (Nowicki, 2016). School emergency preparedness information can be found on many different federal agency and intergovernmental organization websites. At times these agencies develop resources in cooperation/collaboration with other agencies and organizations, and in turn this information is generally found on all the participants' websites. In other cases, many of the agency websites offer links to related information from other agencies and organizations. Found in Tables 1 and 2 is a listing of intergovernmental organizations and United States federal agencies used in researching the topic of school emergency preparedness and the development of school emergency operations plans.

Table 1

Intergovernmental Organizations Websites With School Emergency Preparedness Information

Agency	Emergency preparedness information
National Child Traumatic Stress Network	*Child Trauma Toolkit for Educators* (https://www.nctsn.org/resources/child-trauma-toolkit-educators)
	Creating, Supporting, and Sustaining Trauma-Informed Schools: A System Framework (https://www.nctsn.org/resources/creating-supporting-and-sustaining-trauma-informed-schools-system-framework)
	School Personnel (https://www.nctsn.org/audiences/school-personnel)

(*continued*)

Table 1

Intergovernmental Organizations Websites With School Emergency Preparedness Information (continued)

Agency	Emergency preparedness information
United Nations Office for Disaster Risk Reduction	*School Emergency and Disaster Preparedness: Guidance Notes* (https://www.unisdr.org/we/inform/publications/15655)
	Sendai Framework for Disaster Risk Reduction 2015–2030 (https://www.unisdr.org/we/inform/publications/43291)
World Bank Group	*Disaster and Emergency Preparedness: Guidance for Schools* (https://openknowledge.worldbank.org/bitstream/handle/10986/17669/839970WP0IFC0B0UBLIC00DisERHandbook.pdf?sequence=1&isAllowed=y)

Table 2

Federal Websites With School Emergency Preparedness Information

Agency	Emergency preparedness information
Centers for Disease Control and Prevention	*Schools and Childcare—Preparing for the Unexpected* (https://www.cdc.gov/features/school-emergency-preparedness/index.html)
	Teachers and Childcare (https://www.cdc.gov/childrenindisasters/schools.html)
Federal Emergency Management Agency	*Preparedness Tips for School Administrators* (https://www.fema.gov/media-library/assets/documents/30509)
	Student Tools for Emergency Planning (https://www.fema.gov/media-library/assets/documents/110946)
	Teen CERT Resources (https://www.fema.gov/media-library/assets/documents/28048#)
	Youth Emergency Preparedness Curriculum-Ready Kids (https://www.fema.gov/media-library/assets/documents/34411)
Federal Emergency Management Agency Emergency Management Institute	*Distance Learning* (https://training.fema.gov/is)
Readiness and Emergency Management for Schools Technical Assistance Center	*Prevent Protect Mitigate Respond Recover* (https://rems.ed.gov)
	Site Assess—A Mobile Application for K–12 Schools, School Districts, and Institutions of Higher Education (https://rems.ed.gov/SITEASSESS.aspx)

(*continued*)

Table 2

Federal Websites With School Emergency Preparedness Information (continued)

Agency	Emergency preparedness information
Ready.gov	*Active Shooter* (https://www.ready.gov/active-shooter)
	Youth Preparedness (https://www.ready.gov/youth-preparedness)
U.S. Department of Education	*Practical Information on Crisis Planning: A Guide for Schools and Communities* (https://www2.ed.gov/admins/lead/safety/emergencyplan/crisisplanning.pdf)
U.S. Department of Health & Human Services	*Early Childhood Disaster-Related Resources for Early Childhood Education Providers* (https://www.acf.hhs.gov/ohsepr/information-for-providers)
	Information for Educators, Students, Parents, and Families (https://www.samhsa.gov/school-campus-health/information)
U.S. Department of Homeland Security	*DHS Working to Enhance School Safety, Increase Preparedness* (https://www.dhs.gov/news/2018/03/12/dhs-working-enhance-school-safety-increase-preparedness)
	School Safety and Security (https://www.dhs.gov/school-safety-and-security)
	Securing Soft Targets and Crowded Places (https://www.dhs.gov/publication/securing-soft-targets-and-crowded-places)
U.S. Department of Justice	*Attorney General Sessions Announces New Actions to Improve School Safety and Better Enforce Existing Gun Laws* (https://www.justice.gov/opa/pr/attorney-general-sessions-announces-new-actions-improve-school-safety-and-better-enforce)
U.S. Environmental Protection Agency	*Disaster Preparedness and Recovery Resources for K–12 Schools* (https://www.epa.gov/schools/disaster-preparedness-and-recovery-resources-k-12-schools)
U.S. Secret Service	*National Threat Assessment Center—Enhancing School Safety* (https://www.secretservice.gov/protection/ntac)

Federal website issues. Many factors influence the success or failure of disaster preparedness training. Besides a lack of administration support or a learner's attitude, another failure can be improper training conducted for the wrong audience at the wrong time (Nazli et al., 2014). In studies of perceptions of online learning, technical problems (e.g., dealing with

Internet sites, broken links) were revealed as one of the major challenges (Aydin, Akkan, Arpaz, & Koparan, 2015; Song, Singleton, Hill, & Koh, 2004; Walker & Kelly, 2007).

A problem encountered with some of the federal websites, along with websites of state agencies and NGOs, is the question of whether the information discovered is relevant and up-to-date. Many web pages lack revision dates and outdated links are occasionally found. Some of the dead or erroneous links remain unusable, in some cases for years, when a document or resource is updated or programs change. An example discovered is a promising web page from FEMA (2015a) titled Collaboration Through Information Sharing. The page introduces the Lessons Learned Information Sharing (LLIS) program, the website address for this platform, and declares the program to be a national network of lessons learned, best practices, innovative ideas, and preparedness information for homeland security and emergency response professionals (FEMA, 2015a). Upon using the link to access this resource, a *page not found* error message is encountered and no information or forwarding to where the information or program is located is revealed.

After conducting some additional research using the Google search engine, and examining several different results, a discovery made was the LLIS program consolidated its content with the Naval Postgraduate School's Homeland Security Digital Library (2015), and the LLIS website has been discontinued. The completion of this consolidation of resources occurred only three months after the last update to the original FEMA web page introducing the program, which displayed a revision date of February 13, 2015. The FEMA page has yet to be updated with the current information over three years later. Similar problems were encountered when a web address of an agency or organization is updated or totally changed. Another potential

problem is the reading level of websites being much too high for a diverse audience (Friedman, Tanwar, & Richter, 2008; Uscher-Pines, Chandra, Acosta, & Kellermann, 2012).

Governmental interagency cooperation and coordination. Logic suggests interagency coordination should be a consideration when addressing school emergency preparedness. In the March 2016 Emergency Management report, from the Government Accountability Office (GAO), Nowicki (2016) revealed of a lack of strategic coordination between the U.S. Departments of Education, Health and Human Services, Homeland Security, and Justice in the agencies' support of K–12 schools in preparing for emergencies. Gaps in coordination imply recent efforts are lacking. And though these federal agencies continue to work on a range of emergency preparedness plans, programs and proposals, including some which have been collaborative between agencies, the efforts as related to schools have taken a disjointed approach. Two years later, Nowicki (2018) identified these gaps are similarly realized in higher education institutions. An observation of college officials is the recognition of challenges in finding or identifying the available federal resources of emergency preparedness developed specifically for institutions.

The idea of interagency coordination is not a new concept. To make emergency management a joint effort, and an effective use of resources, participation in disasters from the public, private and nonprofit sector is necessary and part of collaborative emergency management (Kapucu, Arslan, & Demiroz, 2010). Individuals with Disabilities in Emergency Preparedness was signed by President George W. Bush on July 22, 2004 establishing the Interagency Coordinating Council on Emergency Preparedness and Individuals with Disabilities (ICC). This order calls for a coordinated effort between federal agencies to support safety and security in all types of emergency situations for individuals with disabilities. Within the ICC is

the Emergency Preparedness in the Workplace subcommittee tasked with focusing on emergency preparedness related to individuals with disabilities in the governmental and private sector workplaces. Twenty different agencies initially comprised this subcommittee to include the USDE, U.S. Department of Labor, and the U.S. Department of Homeland Security (U.S. Department of Labor, 2005). The inclusion of those agencies within the subcommittee is reasonable and sensible as educational institutions are workplaces which may include individuals with disabilities (school personnel, students and others).

The last report published by the ICC encompasses the years 2010 to 2013 (FEMA, 2016c). During this period, the leadership of the ICC was changed from the Department of Homeland Security Office for Civil Rights and Civil Liberties to FEMA. The change of leadership of the council was in recognition of FEMA's leadership and the department's capability in disability all-encompassing emergency preparedness (FEMA, 2016c,). In this report, a revelation was the USDE Office of Safe and Healthy Schools developed different materials for the USDE Readiness and Emergency Management for Schools on the subject of emergency management considerations for individuals with disabilities or access or functional needs. Specifics on these materials were not given within the report.

Other information related to school emergency preparedness found within this 2016 ICC report includes the OCR testifying of a complaint filed which a school lacked an evacuation route from its basement level. Additionally, in the complaint was an observation of students with disabilities were warned of emergency drills in advance and were taken out of the school before the drills. As a result, the students with disabilities were not given an equal opportunity to participate in the drills with other students. A resolution agreement between the OCR and the school district had the school provide a handicap accessible evacuation route from the basement

and a written policy developed addressing the emergency evacuation of students with mobility disabilities.

In another complaint filed, a school district failed to have a district-wide evacuation plan for students with disabilities. A plan was voluntarily developed by the district. A review by OCR revealed inadequacies of the plan for evacuation of individuals with disabilities to include school staff and visitors. A settlement agreement was reached and the plan was revised and implemented.

The Office of Safe and Healthy Schools and OCR reports were the only items related to school emergency preparedness found within this 110-page report. A more recent ICC report covering the years since 2013 has yet to be published. More recent information found after this report is an agreement which came out of the 2015 Third United Nations World Conference on Disaster Risk Reduction, the *Sendai Framework for Disaster Risk Reduction 2015–2030* (UNISDR, 2015). Recognized within this framework is persons with disabilities, and the representative organizations, are essential in the evaluation of disaster risk and in designing and implementing emergency operations plans. The inclusion of persons with disabilities in the emergency planning process is a reoccurring theme emphasized in recent emergency preparedness related articles (Casey-Lockyer & Myers, 2017; Kruger, Hinton, Sinclair, & Silverman, 2018; Sprong, Dallas, & Soldner, 2018; Stough & Kang, 2015).

Federal guidance on school disaster plans. Auf der Heide (1989) advised if disaster plans are not joined to programs designed to train and exercise the plan, are not acceptable to the target audience, and do not allow for the necessary resources, all people may have is the illusion of preparedness. According to a 2007 GAO report to congress, federal laws requiring all school districts to have emergency management (disaster) plans are nonexistent. A discovery of those

which do have plans is the content within these plans varies greatly and many do not include recommended practices (Ashby, 2007). In a study of California public schools, Kano and Bourque (2007) report the data is comparable with previous studies and school staff emergency response training is unbalanced and insufficient.

The *Guide for Developing High Quality School Emergency Operations Plans* (USDE, 2013) was released on June 18, 2013. This guide was the first cooperative artifact, regarding school emergency operations plans, which included the U.S. Departments of Homeland Security, Justice, Education, and Health and Human Services. The guide was built on lessons learned and years of emergency planning work by the Federal government (USDE, 2013). Within this guide, a suggestion is made in which the emergency operations plan content includes a section addressing critical training and exercises in support of the plan. The section should consist of the core training objectives and regularity of the training and drills to ensure school personnel, students, parents, and community representatives understand individual roles, responsibilities, and expectations in the plan and in overall school emergency preparedness.

Mutch (2016) recommends policymakers ensure school leaders and other school personnel are provided with professional development in crisis planning, crisis management, and school-based strategies for emergency response and recovery. This concept is important as children spend a major portion of the day in school which makes them highly dependent on decisions made by policymakers and school personnel in emergency planning and evacuation decisions (Stough, Kang, & Lee, 2018).

Petal and Green (2010) reveal school disaster management involves the recognizable cycle of steps found in all project management. Included are the assessment of hazards, vulnerabilities, capacities and resources; the planning and implementation of physical risk

reduction, maintenance of safe facilities, developing standard operating procedures and training for disaster response; the testing of mitigation and preparedness plans and skills regularly; and the revision of plans based on experience.

In a 2014 national survey, the Centers for Disease Control and Prevention reported 12.4% of schools had a crisis preparedness plan provided by the district, 36.5% had one adapted from a district-level plan to meet the school's needs, and 36.5% had a school-developed plan (U.S. Department of Health and Human Services, 2015). The survey revealed training on the crisis preparedness, response, and recovery plans was provided to slightly less than 94% of the school faculty and staff studied.

CERT program and training. Federally offered hands-on/instructor-delivered emergency preparedness training is available to school personnel, though this training is not specific to the school audience or the school environment. The CERT program educates volunteers about emergency and disaster preparedness for the dangers which may impact the community by training the volunteers in basic disaster response skills (Ready.gov, 2018). CERT is a nationally supported, locally implemented program of FEMA. Individuals can take this training for personal edification, but often join volunteer programs sponsored by a local community emergency management agency. One study observed the integration of CERT trained volunteers, and the teams formed by the volunteers, into local emergency management agencies and systems varied greatly. The variance was enough the teams could fall under the classifications of *least integrated*, *somewhat integrated*, and *highly integrated* (Jensen & Carr, 2015).

Two other CERT programs exist which are somewhat more related to schools. Teen CERT is a similar program to CERT, but addresses a teenaged volunteer audience and

adjustments are made to make certain activities age appropriate. In a brochure from FEMA (2015b), a question is asked if the teen knows what to do if an emergency occurred in the school. In the answer to another question presented of why a teen should join the program, the response is “When you see a classmate’s or a teacher’s look of fear, you can be the support they need” (p. 2). A study of a Teen CERT program implemented in South Los Angeles exposes a model which can be used to expand CERT programs in communities with high risk teens or groups (Ossey et al., 2017).

Another FEMA (2016a) program is Campus CERT. Campus CERT is essentially the same as CERT, but is approached with the understanding a college or university campus often have internal emergency management capabilities and operates as a city within a city. The audience (volunteers) for this training is the administration, staff, faculty and students of higher education institutions. A suggestion has been made in which college students should be educated on emergency preparedness as part of the university orientation, using Campus CERT to deliver the training (Schildkraut, McKenna, & Elsass, 2017).

Emergency Management Institute. The FEMA Emergency Management Institute (EMI) offers self-paced online courses in emergency management and emergency preparedness related topics. This training is available free of charge and is designed for people who have emergency management responsibilities as well as the general public (EMI, 2018a). What is unknown is if Illinois school personnel are aware of this training or are encouraged or required to participate in any of this training. A review of the available EMI training was conducted and the results were included in the development of the survey for school personnel and the evaluation of the two districts’ Emergency Operations and Crisis Response Plans.

EMI (2018a) offers 186 different online courses. Table 3 contains a list of the courses directly related to school emergency preparedness, or are courses which have sections contained within, which can be applied or adapted to a school setting. The courses found in Table 3 are derived from the list of the independent study program courses found on the EMI (2018c) website.

Table 3

EMI School-Related Emergency Management and Preparedness Courses

Course code	Course title	Course updated
IS-36	Multihazard Planning for Childcare	10/31/2013
IS-100.c	Introduction to the Incident Command System, ICS 100	6/25/2018
IS-120.c	An Introduction to Exercises	2/12/2018
IS-130.a	How to be an Exercise Evaluator	2/12/2018
IS-139.a	Exercise Design and Development	3/1/2018
IS-235.c	Emergency Planning	12/15/2015
IS-241.b	Decision Making and Problem Solving	3/31/2014
IS-242.b	Effective Communication	3/31/2014
IS-271.a	Anticipating Hazardous Weather & Community Risk, 2nd Edition	10/31/2013
IS-288.a	The Role of Voluntary Organizations in Emergency Management	2/12/2015
IS-315	CERT Supplemental Training: The Incident Command System	8/13/2013
IS-317	Introduction to Community Emergency Response Teams	6/26/2014
IS-360	Preparing for Mass Casualty Incidents: A Guide for Schools, Higher Education, and Houses of Worship	6/24/2013
IS-362.a	Multi-Hazard Emergency Planning for Schools	10/31/2013
IS-366.a	Planning for the Needs of Children in Disasters	12/9/2015
IS-906	Workplace Security Awareness	10/31/2013
IS-907	Active Shooter: What You Can Do	12/28/2015
IS-914	Surveillance Awareness: What You Can Do	10/31/2013

Some of the independent study courses may be suggested or required prerequisites to similar multiday resident courses at EMI in Emmetsburg, Maryland or state emergency management agency programs (IEMA, 2018b). The two resident EMI (2018b) courses

discovered, directly related to schools, include E360 Preparing for Emergencies: What Teachers Need to Know and E364 Multihazard Emergency Planning for Schools.

State and Emergency Preparedness Literature Sources

Searching for state sources of school emergency preparedness related topics in Illinois revealed no existence of a single-source location (e.g., the IEMA website, the Illinois Board of Education website). This situation was true with the federal government agencies and websites as well. Researching requires the examination of many different state agencies and organization websites. To further complicate matters some agencies, such as the ISBE, made updates to official websites to include a changing of the web addresses and domain (e.g., isbe.state.il.us to isbe.net). The changing of addresses, without proper forwarding to new addresses, has led to broken or outdated links discovered on other websites. Many websites cross-reference other agencies and information within web page content, or often offer a resource section or page for a reader's convenience.

Another challenge is the suitability (the degree to which the website offers high quality and pertinent information to readers) and readability (the reading level needed to understand the websites information and guidance) found on the various websites. Friedman et al. (2008) discovered in a study of 50 of the most popular disaster information websites, generally the readability was too high to be commonly understood. Additionally, there was significant variance in the quality of information across the websites. These findings could be extrapolated to the recent state websites encountered. Table 4 contains a listing of the various Illinois agency websites used in researching the topic of school safety, security, emergency preparedness and the development of school emergency operations plans. The various web addresses lead to literature, informational web pages and links to other sources of emergency preparedness.

Table 4

Illinois State Websites With Emergency Preparedness Information

Agency	Emergency preparedness information
Illinois Association of School Boards	*School Safety and Security* (https://www.iasb.com/safety)
Illinois Compiled Statutes	*School Safety Drill Act* (http://www.ilga.gov/legislation/ilcs/ilcs3.asp?ActID=2735 &ChapterID=17)
Illinois Emergency Management Agency	*Preparedness* (https://www2.illinois.gov/iema/Preparedness/Pages/default.aspx)
	Mitigation (https://www2.illinois.gov/iema/Mitigation/Pages/default.aspx)
	Information (https://www2.illinois.gov/iema/Info/Pages/Annual-Reports.aspx)
Illinois School and Campus Safety Resource Center	*Emergency Operations Plans (K–12 and Higher Ed)* (http://ilschoolsafety.org/index.php/higher-ed-resources /preparedness-higher-ed/emergency-operation-plans-higher-ed)
	K–12 Resources (http://ilschoolsafety.org/index.php/k-12-resources)
Illinois State Board of Education	*School Emergency and Crisis Response Plan Guide* (https://www.isbe.net/Pages/School-Emergency-and-Crisis -Response-Plan-Guide.aspx)
Illinois.gov	*Find School Safety Information* (https://www2.illinois.gov/services/ISBE/school-safety)
Office of the Illinois State Fire Marshal	*Safety Planning and Response Documents for All Schools* (https://www2.illinois.gov/sites/sfm/Iam/SchoolOfficials/Pages /Safety-Planning-and-Response.aspx)

State disaster planning and training requirements for schools. Minimum requirements and standards of school safety drills for Illinois are found in the School Safety Drill Act (2005). Overall, the act encourages schools and local first responders to work together. Section 20 of the act addresses the number of drills, incidents covered, and local authority participation. Section 20 was amended by Public Act 100-0996 (2019), and became effective January 1, 2019. The amendment is specific to law enforcement drills addressing a school shooting incident. The changes made include: the minimum of one law enforcement school

shooting incident drill being conducted no later than 90 days after the first day of the school year; with the purpose of evaluating the preparedness of school personnel and students; participation must include participation of all school personnel and students at school during the time of the drill. Section 25 of the act addresses the minimum annual review of each school building's emergency and crisis response plans, protocols, and procedures and each building's compliance with the school safety drill programs. Missing in this act is the addressing of the training of school personnel in emergency preparedness.

Combined rules adopted by the ISBE and the Office of the State Fire Marshal are found in the *School Emergency and Crisis Response Plan Guide* (Kuhl & Switzer, 2017). Within this guide are minimum compliance forms and documents, a sample school emergency operations plan, and additional multihazard training documents. A review of this literature reveals the listed training documents are handouts and training aids, and not any sort of program, courses, or set of courses. Absent within this guide is any curriculum or formal emergency preparedness training program required or recommended for school personnel. This guide is out-of-date as the referenced Multi-Hazard Emergency Planning for Illinois Schools Training Program appears to be no longer offered and no such program has been listed since 2016.

School emergency preparedness training. What appears to be the replacement for the Multi-Hazard Emergency Planning for Illinois Schools Training Program is the School and Campus Safety Program: K–12 Safety (Illinois School and Campus Safety Resource Center, 2018a), a program managed by the Illinois Law Enforcement Training and Standards Board Executive Institute (ILETSBEI) at Western Illinois University. Exploring the Illinois School and Campus Safety Resource Center website reveals the "Illinois School and Campus Safety Program: P–12 Courses" brochure (Illinois School and Campus Safety Resource Center, 2017)

for the years of 2017 and 2018. Within this brochure are the six courses offered and descriptions of the courses. Upon review, the courses listed are limited and are only related to the topics of developing emergency operations plans, earthquake preparedness, student behavioral threat assessment, and bomb incidents.

The *School & Campus Safety Training Program Course Schedule Summer/Fall 2018* (Black, 2018), current as of June 21, 2018, listed the Illinois School and Campus Safety Program courses offered around the state. Of note, only one session of Developing Emergency Operations Plans K–12 101 Train-the-Trainer and one session of Understanding and Planning for School Bomb Incidents & Incident Response to Terrorist Bombings is scheduled to be offered between June 2018 and May 2019. The remaining 26 courses offered during this period are all related to behavioral threat assessment.

The disjointedness between federal governmental agencies regarding emergency preparedness reported by the GAO (Nowicki, 2016) appears to similarly apply to Illinois governmental agencies. On the Illinois School and Campus Safety Resource Center (2018b) website, the courses listed appear to be updated and are from November 2018 (the month the site was accessed) through March 2019, and only show courses related to behavioral threats and no other topics. The number of sessions offered of these courses, over the previously published schedule, has increased from two to nine over the same time period. Additionally, the program's name is not exactly the same when visiting the various state websites and reviewing the literature.

Such a case is the ILETSBEI document the 2018 School and Campus Security Training Program (E. Arnold, 2018). The courses listed in this document are the same as found in the Illinois School and Campus Safety Program: P–12 Courses brochure. A typographical error may

have occurred substituting *security* for *safety* by the particular author of the document within the ILETSBEI, as this agency is the author of the documents found on the Illinois School and Campus Safety Resource Center website. A review of the IEMA (2018c) website finds the links to these documents listed as *The School and Campus Security Training Courses, 2018 Scheduled School Safety Training Courses, and Illinois School and Campus Safety Program Training Request Form*. The links on the IEMA website appear to reflect whether the actual document contains the words *security* or *safety* in its heading.

School District Emergency Preparedness Documentation

In *Public School Emergency Preparedness and Crisis Management Plan*, a critical statement regarding school emergency operations plans is made:

> No Crisis Management or emergency operations plan can be properly implemented and executed during a crisis or emergency unless all the expected participants are aware that the plan exists, what emergencies are covered, and what is expected of each (administrators, faculty members, staff members, and students) during an actual emergency. All participants must be adequately trained on those portions of the plan that affect them, and they must know that other participants understand and are able to perform their respective tasks safely and effectively. (Philpott & Serluco, 2010, p. 211)

The two studied districts' Emergency Operations and Crisis Response Plans reviewed are part of the school disaster management process of assessment and planning, physical protection and response capacity development designed to protect students and the staff from physical harm, minimize disruption and ensure the continuity of education for all children, and to develop and maintain a culture of safety (Petal & Green, 2010). An expectation in the review of these plans is the revelation of what is being addressed by the two studied school districts of the mandatory or

recommended emergency preparedness training by the federal government and the state of Illinois, and identifying the audience of this training. Other disclosures in the examination of the plans may include additional emergency preparedness initiatives taken by the districts and with local first-responder agencies.

The results of the review of these plans aid in developing survey questions to be presented to school personnel as well as providing background information when reviewing responses to those questions. Kerr and King (2018) reported the safety beliefs of school staff and students should be known in order to offer protection, and a simple tactic is to survey this audience. An examination of student and staff perceptions about school safety, along with assessing the physical security of the school site and reviewing the policies and procedures, should be included in a school safety assessment. Of note is data from surveys have been used to explain to school boards of the need for emergency preparedness training. An example can be found in the case of the Bullock County School District in Georgia where a faculty survey conducted indicated teachers felt inadequate and did not have the skills to reliably and sufficiently respond to a crisis (USDE, 2007).

A Freedom of Information Act (FOIA) request was made to each district requesting copies of the plans. The high school district (THSD 211) complied with a condition of an in-person pickup of the document (M. J. Hildebrand, personal communication, August 8, 2018). The elementary school district (CCSD 15) declined the request to provide a printed or electronic copy of the Emergency Operations and Crisis Response Plan and instead referenced the publicly available school district's web page regarding school safety and security (CCSD 15, 2018b). Due to safety concerns, some information is intentionally not made available on the web page (S. B. Thompson, personal communication, August 13, 2018). E-mail and telephonic conversations

were held with the two districts and included both district's superintendents and the high school district's director of administrative services (the district administrator responsible for school safety and security). Questions about the districts' Emergency Operations and Crisis Response Plans were discussed along with sharing of the survey questions for the districts' school personnel.

Other Emergency Preparedness Literature Sources

Federal and Illinois state agencies were not the only sources to locate school-related emergency preparedness literature. Of note was in addition to referencing or cross-referencing federal agencies, state agencies would use information developed by other states. Another source was public and private institutions of higher learning, especially those with emergency management programs.

Jessica Jensen, an associate professor and department head of the North Dakota State University (NDSU) Department of Emergency Management, is a subject matter expert and writes scholarly articles on various topics in emergency management. Jensen (n.d.) established an extensive list of resources titled *Emergency Management Research Resources*. Originally a resource for students attending the university, Jensen prepared another version titled *Emergency Management Scholarly Research Resources—Research Resources for Emergency Management Faculty and Students* for FEMA (2016b). As an itemized source of emergency management information (primary journals, academic research centers, and government websites), the list proved to be an invaluable resource. As stated previously when exploring federal and state websites, a good number of the links provided in this document are broken and the associated websites and pages may have possibly moved, were removed, or the web address

decommissioned. The titles presented (e.g., journal names, academic research center names) can provide valuable clues to research the current statuses and location of information.

NDSU provides an extensive listing of resources for emergency management students. The Professional Development Resources page contains 12 links to other NDSU web pages containing information of internal and external resources available to NDSU students. The pages contain research resources, professional organizations, emergency management materials, and other tools and resources (NDSU, 2018). Table 5 contains several organizations in which school-related emergency preparedness information, papers and articles can be accessed.

Table 5

Examples of Nongovernmental Websites With Emergency Preparedness Information

Organization	Emergency preparedness information
ALICE Training Institute	*ALICE Training K–12 Program* (https://www.alicetraining.com/our-program/alice-training/k12-education)
American Red Cross	*Resources for Schools* (https://www.redcross.org/get-help/how-to-prepare-for-emergencies/resources-for-schools.html)
Australian Journal of Emergency Management	*Knowledge Hub* (https://knowledge.aidr.org.au/collections/australian-journal-of-emergency-management)
International Journal of Security, Preparedness, and Resilience Education	*International Journal of Security, Preparedness, and Resilience Education* (http://www.journalhse.org)
Journal of Emergency Management	*Journal of Emergency Management* (http://ejournal.emergencymanagementjournal.com/LoginPage.aspx)
National Association of School Nurses	*Disaster Preparedness* (https://www.nasn.org/nasn-resources/practice-topics/disaster-preparedness)

(*continued*)

Table 5

Examples of Nongovernmental Websites With Emergency Preparedness Information (continued)

Organization	Emergency preparedness information
National Association of School Psychologists	*Best Practice Considerations for Schools in Active Shooter and Other Armed Assailant Drills* (http://www.nasponline.org/resources-and-publications/resources/school-safety-and-crisis/best-practice-considerations-for-schools-in-active-shooter-and-other-armed-assailant-drills)
	PREPaRE School Crisis Prevention and Intervention Training Curriculum (http://www.nasponline.org/assets/documents/Professional%20Development/PREPaRE/Trainers/Prepare_Overview_Presentation.pdf)
National Education Association	*School Crisis Guide* (http://healthyfutures.nea.org/wpcproduct/school-crisis-guide)
North Dakota State University	*Emergency Management—Professional Development Resources* (https://www.ndsu.edu/emgt/professional_development_resources)
	Emergency Management Research Resources (https://www.ndsu.edu/fileadmin/emgt/EMERGENCY_MANAGEMENT_RESEARCH_RESOURCES.pdf)
University of Delaware	*Disaster Research Center* (https://www.drc.udel.edu)
University of Louisville	*Center for Hazards Research and Policy Development* (http://www.hazardcenter.louisville.edu)

Chapter Summary

The overall intent of this study was to discover Illinois K–12 school personnel school and individual emergency preparedness perceptions, and if the personnel are receiving the appropriate emergency preparedness training in preparation for possible natural, technological, and intentional disasters experienced in the school environment. A review of the literature was conducted to gain a better understanding of the topic of school emergency preparedness, the development and use of a school Emergency Operations and Crisis Response Plan, and as an aid in developing the School Personnel Emergency Preparedness Survey (SPEPS) instrument

(ACAPS, 2016; Bigante, 2005; Graham, 2009; Perkins, 2018; Rinaldi, 2016) to be presented to school personnel.

Emulating recent school emergency preparedness-related studies (Connelly, 2017; Dixon, 2014; Rinaldi, 2016; Riojas, 2014; Steele, 2016), *A Theory of Human Motivation* (Maslow, 1943), more commonly known as Maslow's hierarchy of needs, is the theoretical framework guiding this study. Two pillars of the CSSF, an all-inclusive methodology to reduce risks from all hazards to the education sector (GADRRRES, 2017a), completed the framework as a model directing this study and in the development of the SPEPS instrument to gauge the perceptions of Illinois school personnel.

The two studied school districts' actual Emergency Operations and Crisis Response Plans are examined to determine if emergency preparedness training is addressed for school personnel and if there are specific roles for school personnel in emergency situations. The literature revealed gaps in coordination between federal, state and local government agencies and organizations, amongst each other, with respects to school emergency preparedness. These gaps may extend down to the district and school levels. A discovery is educators harbor a concern of not being trained in teaching disaster risk reduction and resilience education. As a result, the concern becomes a deterrent to the commitment and implementation of teacher training programs in the school setting and classroom (Ronan et al., 2016).

A benefit of the study's SPEPS instrument, and resulting data to be shared with the school districts, may be a way to determine the schools' and school personnel's training needs. Included questions and statements within the survey can be used as a disaster preparedness training needs assessment for the districts and schools. Gaps may be identified which may need to be addressed. Furthermore, the findings of this study could be used by district and school

leaders to develop and implement strategies to raise the self-efficacy of school personnel (Perkins, 2018).

Chapter 2 of this study contains the literature search strategy applied, the theoretical framework and model directing this study and an evaluation and consideration of the school emergency preparedness related research literature. Chapter 3 describe the basis for the quantitative cross-sectional research design using a survey tool to collect data. Within Chapter 3, the various data types are identified and usage of the data is presented. Included are details regarding the research procedures, an analysis of the data, and the reliability and validity of the data to be collected and ethical procedures employed.

Chapter 3: Methodology

The purpose of this study was to determine how the administrations, staffs, and faculties of two school districts perceive school and individual emergency preparedness and current emergency preparedness training received or desired. A review of federal, state, and school district archival data, related to school emergency preparedness, was conducted. Along with information derived from a literature review, the data was used to design questions for a survey instrument offered to school personnel. The resulting data from the survey and archival data was examined and analyzed. Potential gaps between the emergency preparedness training suggested or required, what is received, and what is desired may be revealed. This study can additionally be viewed as a training needs analysis. A training needs analysis is a systematic process used to determine organizational and individual training needs (Nazli et al., 2014). A byproduct of the study's survey and resulting data may be a way to determine the school and school personnel training needs. Additionally, the findings of this study could be used by district and school leaders to develop and implement strategies to raise the self-efficacy of school personnel (Perkins, 2018).

The research question guiding this study is addressed by the review of the literature and archival data at the federal, state and district levels, and a survey to be conducted with the district and school personnel of two suburban Chicago area school districts. It is understood researchers shape and focus the purpose of a study by using quantitative research questions and hypotheses, and occasionally use objectives (Creswell, 2014).

This chapter includes the rationale for the quantitative survey research design and identifies the various data types and usage of the data. Additional information in this chapter includes details regarding the research procedures, an analysis of the data, and the reliability and

validity of the data to be collected. Ethical procedures and a chapter summary are parts of this chapter.

Research Design and Rationale

This study involved a quantitative cross-sectional research design using a survey tool to collect data. This survey approach is referred to as descriptive research (Creswell, 2018). For this study, the cross-sectional design involved the collection of data on a sample population of school personnel servicing Grades K–6 (elementary school), 7–8 (junior high school), and 9–12 (high school). Data collection was conducted at a single point in time and amass a body of quantitative data in connection with two or more variables (Bryman, 2016). An important feature of a survey design is the idea of generalizability, where the opinions and attitudes of a few can represent many (Hutson & Kolbe, 2010). The survey design includes questions and statements which can be used in a training needs assessment in disaster preparedness for the districts and schools.

The final survey tool design was a result of a review of the literature, archival documents, and coordination with the studied school districts. Stage 1 of the study was an exploration and analysis of the literature and archival documents to provide information and facts to build the survey instrument to support the research question (Creswell & Creswell, 2018; Fowler, 2014; Miles, Huberman, & Saldana, 1994). The coordination with the school districts (Stage 2) included a pilot study with district personnel used to enhance the online survey instrument. Pilot studies allow the determination of the adequacy of instructions and questions of respondents completing a self-administered questionnaire (Bryman, 2016). The execution of the instrument to the target audience is Stage 3. The coordination engages the districts, as one of the stakeholders, in a decision-making process of question and instrument development (Llewellyn & Harrington, 2014).

Research Procedures

The following sections describe the research procedures in various categories. Included is information of the population and sample selection of the target audience offered the survey in the study. The instrumentation is described and the four sections contained within the survey are clarified. The research question and hypothesis are presented, and the data collection procedures and data preparation for analysis is described.

Population and Sample Selection

The target population to be invited to complete the self-administered closed-ended and multiple-choice questionnaire (Stage 3) are members of the administrations, staffs, and faculties of each of the schools which make up the two studied school districts. The K–8 district employs 2,088 personnel (CCSD 15, 2018a). For 2017, the high school district employed 2,034 total staff (THSD 211, 2017). The sample size was 72 respondents ($N = 72$), which includes members from each of the administrations, staffs, and faculties found in the 24 schools which makeup both districts. The online survey was to be open for 30 days with a reminder sent out at the midway point. At the 15-day mark, the sample received was to be examined to determine if the minimum projected sample size and categories have been met. If a particular category (administration, staff or faculty) of respondents has not been met, the reminder sent out includes a statement indicating an appeal to the underrepresented category to complete the survey (Appendix C).

Instrumentation

Potential respondents receive an e-mail which includes an introductory statement, a request to participate, and a confidentiality statement with a link to an online questionnaire (Appendix B). A reminder e-mail (Appendix C) was sent out 19 days after the initial e-mail. The items used and posted on the survey website were initially developed through research and

considered acceptable after review and coordination with the studied school districts. The online questionnaire design utilized the features and functions of SurveyMonkey (2018a).

A 31-item survey, titled School Personnel Emergency Preparedness Survey, was developed. A review of the literature and archival data did not reveal an existing survey instrument thought suitable for this study. Appendix A contains a copy of the final instrument and is a result of a review of the literature (ACAPS, 2016; Bryman, 2016; Fowler, 2014), previous studies (Alba, 2011; Bigante, 2005; Brown, 2008; Graham, 2009; Groves, 2013; Hill, 2015; Maida, 2012; Perkins, 2018; Rider, 2015; Rinaldi, 2016; Tigges, 2008), archival data, and the personal and institutional knowledge of the survey developer in emergency preparedness.

The SPEPS was shared with the leadership of the studied school districts as a pilot study and coordinating effort. The results of these efforts were to address issues or concerns the district leadership may have of the questionnaire, test the adequacy of instructions and questions of respondents, and to finalize the instrument to be used in the study. No issues or concerns were indicated and no changes were requested by the districts. The survey design addressed respondents who are administrators, staff, or faculty within the studied school districts and schools. This survey design was to elicit district personnel and K–12 school personnel perceptions regarding assignment location's (district or school) emergency preparedness level as well as personal emergency preparedness level.

First section of survey. The first section of the SPEPS is the Welcome and Consent Statement. This section contained one question asking the respondent to select *yes* or *no* as to consent to take the survey. Selecting *yes* allows continuation with the survey. Selecting *no* directs the reader to an exit page.

Second section of survey. The Demographics section contained eight questions (numbered 2–9) to gather demographics on the respondents for possible generalization of the results. Five demographic questions use nominal scales and include the respondent's gender, race/ethnicity, education level, primary position (administrator, faculty or staff), and primary location (district offices, elementary school, junior high school or high school). Three demographic questions utilize ordinal scales and include respondent's age range, length at present assignment, and total length of all assignments in a school environment.

Third section of survey. The Emergency Preparedness Perceptions section included 14 items (numbered 10–23) and are a combination of opinion questions and statements using nominal and ordinal scales. Items 10 and 11 are statements of the importance of preparation for a school crisis and the importance to receive emergency preparedness training, using a 5-point Likert scale with numeric values assigned to each category for the purpose of analysis (1 = *not important*, 2 = *slightly important*, 3 = *moderately important*, 4 = *important*, 5 = *very important*). Items 12 and 13 are opinion questions as to the preparedness of the assignment location and the individual of the three types of disasters (natural, technological and intentional). A 5-point Likert scale with numeric values assigned to each category for the purpose of analysis (1 = *not at all prepared*, 2 = *somewhat prepared*, 3 = *prepared*, 4 = *quite a bit prepared*, 5 = *extremely well prepared*) is used.

Items 14 through 17 are opinion questions with only the option of selecting one of three disaster categories (natural disaster, technological disaster, and intentional disaster). Item 18 is a statement of the respondent's possession of the district/school Emergency Operations and Crisis Response Plan, is dichotomous, and can be answered with *yes* or *no*. Item 19 is a statement regarding the respondent's familiarity with the plan, using a 5-point Likert scale with numeric

values assigned to each category for the purpose of analysis (1 = *not at all familiar*, 2 = *somewhat familiar*, 3 = *familiar*, 4 = *quite a bit familiar*, 5 = *extremely familiar*).

Item 20 is a question of if the responding individual has a specific role or duty during an emergency. Items 21 and 22 are questions asking if the school district and the individual's assignment location offer emergency preparedness training. These three items are presented with the choices of *yes*, *no*, or *I do not know*. Item 23 is an opinion question of the district's and school's leadership commitment to improving emergency preparedness. A 5-point Likert scale with numeric values assigned to each category for the purpose of analysis (1 = *not at all committed*, 2 = *somewhat committed*, 3 = *committed*, 4 = *quite a bit committed*, 5 = *extremely committed*) is used.

Fourth section of survey. The Emergency Preparedness Training section included Items 24 through 31 and are nominal and ordinal scale statements or checklists regarding emergency preparedness-type training. Items 24 through 26 are questions regarding the participation in school emergency drills and participation in emergency preparedness training. These are checklists which include a single negative response (e.g., *I have not participated in*…, *I have not received any*…) and a last choice labeled *Other (please list)* with room to add drills or additional emergency preparedness training received.

Item 27 was a question of if the individual is interested in participating in emergency preparedness training designed specifically for the Illinois school environment. *Yes*, *no*, and *I am not sure* choices are given. Items 28 through 31 are lists of specific emergency preparedness training to gauge the respondent's interest in receiving, if offered in the future. All four items include a single negative response of *I am not interested in any of the training listed below* for

each item. Item 31 includes a last choice of *Other (please list)* and room to add additional emergency preparedness training the respondent may be interested in receiving.

The drills and training listed in the survey originated from the School Safety Drill Act (2005), the 2018 School and Campus Security Training Program (ILETSBEI, 2018), CERT training (Ready.gov, 2018) and the EMI (2018c) independent study courses.

Research Question

A well-defined and focused research question guides and centers research. To guide this study, the research question was: What are the differences in perceptions of emergency preparedness between K–6, 7–8 and 9–12 grade-level school personnel in two northeastern Illinois school districts? The hypothesis guiding this study is:

H_o: There are no significant differences in perceptions of emergency preparedness between the K–6, 7–8 and 9–12 grade-level school personnel in two northeastern Illinois school districts.

H_a: There are significant differences in perceptions of emergency preparedness between the K–6, 7–8 and 9–12 grade-level school personnel in two northeastern Illinois school districts.

Data Collection

The data collection process involved several steps. Initially, an applicable survey was sought-after to use in this study. When a suitable existing survey instrument was not found, the SPEPS was developed (Appendix A). Coordination with the school districts is described including using the SPEPS in a pilot study with district personnel. The collection, storage and security of the resulting data from the SPEPS is also defined.

Coordination with school districts. A coordinating effort with the two districts' superintendents and main staff member responsible for emergency preparedness was initiated. An important note is the districts have not requested or commissioned this study. The anticipation was the coordination would address and alleviate concerns regarding the impact of the self-administered closed-ended survey and the participation in the study by school personnel of the respective districts. The coordination with the districts had the potential to produce guidance or requests from the two districts, in the conduct of the study, as the results of the study may be of use to the districts in the future.

The SPEPS (Appendix A) was provided to each of the districts' leadership, as a pilot study, for review. The sample size for the pilot study includes the two superintendents and two main staff members responsible for emergency preparedness and school safety of the districts to be studied ($N = 4$). The participants of the pilot study, though part of the districts' leadership, previously held positions in K–12 schools at one time. The pilot study sample size provided a perspective from school level to district level. Three of the participants of the pilot study hold Doctorate of Education degrees which brings experience with survey instruments and the need for reliability and validity. Piloting the survey allowed time for the leadership to review the items and make notes or comments and achieve an acceptable threshold of internal consistency (reliability = .70). A result of the pilot study resulted in no requests for changes, additions or deletions to the survey questions and statements. The pilot study survey became the final version to be administered to school personnel.

As part of the literature review and archival data, a formal request for the studied districts' Emergency Operations and Crisis Response Plan were made by submitting a FOIA request to each district and requesting copies of the plans. These plans were used in the

development of the survey items (Appendix A) offered to district and school personnel. In response to the two FOIA requests, one district requested an in-person pickup of the document due to the sensitive nature of the Emergency Operations and Crisis Response Plan. A meeting took place with the district's director of administrative service who is responsible for coordinating school safety planning and emergency preparedness. During the meeting, the aspects of the study were discussed, and the requested documentation was provided in printed format. The meeting with the director took place at the district's office and was less than one hour long. Follow-up conversations with the director, via e-mail and telephonically, were held prior to the pilot study and release of the survey questions to the school personnel.

A response to the FOIA request of the second district arrived with the district declining to provide a printed copy of the Emergency Operations and Crisis Response Plan. Rather than being provided access to the actual plan, a link to the district's public web page was provided. On the district web page (CCSD 15, 2018b), some of the information found within the formal plan could be viewed. Access to the full plan was denied for what the district described as security reasons. An offer was made to directly contact the district's superintendent or deputy superintendent to discuss any specific component of the safety plan. Follow-up conversations with the district's superintendent, via e-mail and telephonically, were held prior to the pilot study and release of the survey questions to the school personnel.

Survey. The SPEPS was the data gathering instrument used in this study. A copy of the survey questions is found in Appendix A. The survey is a self-administered closed-ended questionnaire offered online to the district and school personnel of the two studied school districts. The online survey helped to ensure confidentiality as none of the participant's names were recorded, is convenient, and easy to complete (Bryman, 2016). An expectation was the

voluntary participants do not object to sharing the information as the result of the study becoming public knowledge.

Data collection from the online survey utilized the features of SurveyMonkey. The features include the responses displayed in spreadsheets and graphically (SurveyMonkey, 2018c). The collection of e-mail addresses did not occur to protect respondent confidentiality. The e-mail address recording function of SurveyMonkey was disabled when the survey was created. The survey was made available for 49 days and reminder e-mails (Appendix C) were sent out.

The resulting data remains on an electronic spreadsheet with no identifying details aside from the general demographic questions of age range, gender, ethnicity, highest education level, primary position (administrator, faculty or staff), primary assignment location (district offices, elementary school, junior high school or high school), tenure (expressed in range of years) at present assignment, and tenure (expressed in range of years) of all assignments in a school environment. As recommended by Anderson and Corneli (2017), the electronic spreadsheet was stored on a single password-protected computer and a backup flash drive securely stored in a locked cabinet.

Data Preparation

Data from the SPEPS was exported from the SurveyMonkey website and into an SPSS format (SurveyMonkey, 2018b). The data is scored by assigning a numeric score or value to each question response category (Creswell, 2012). The codebook created for the survey is found in Appendix D. The codebook reflects the survey questions used in the pilot test and survey online as no changes were made after the pilot study. IBM SPSS Data Preparation 25 procedures include:

- Preparing the metadata by reviewing the variables, determining valid values, labels and measurement levels. Identify groupings of variable values which are impossible, but commonly miscoded and defining validation rules based on this information.
- Validating the data by running basic checks and checks against defined validation rules to identify invalid cases, variables and data values. Invalid data which is found was investigated and the cause corrected.
- Using automated data preparation to achieve changes to the original fields which improve model building. Potential statistical outliers which can cause problems for predictive models were identified.

In cleaning the data, Creswell (2014) promotes a visual inspection of data using SPSS to sort cases in ascending order for each variable. The process allows the spotting of out-of-range or incorrectly numbered cases. The database was assessed for missing data. Two options exist in the case of missing data: (a) eliminate respondents with missing scores from data analysis and include only those with complete data (if the elimination does not severely reduce the number of respondents for data analysis); (b) use SPSS to substitute a value (a mean value of the question for all study respondents) for each missing score. The rule to be followed is removing no more than 5% of the missing data cases assures the randomness of the data and there is an acceptable statistical power (Vieira, 2017). Much of the literature makes the suggestion of not using mean imputation or substitution (Outhwaite & Turner, 2007).

Data Analysis

The analysis of data involves the identification, examination, and interpretation of trends and frequencies of the data based on survey categories (TDR, 2014). Statistical analysis of the

data utilizes IBM SPSS Statistics. Descriptive statistics (frequency, percentage, mean, and standard deviation) was performed on demographic variables (Survey Questions 2–9) to identify individual group characteristics and descriptive statistics was conducted on all study variables (Argyrous, 2011; Locke, Spirduso, & Silverman, 2014). Crosstabs were performed to determine associations between variables and the strength of association (Babbie, Wagner, & Zaino, 2018).

Using the variables found in the Emergency Preparedness Perceptions section of the SPEPS, a Kruskal–Wallis test was conducted to understand if there are differences between school personnel, based on assignment location and position, with opinions on the commitment of district and school leadership to improving emergency preparedness in the school. The dependent variables are the perceived commitment level of district leadership and the perceived commitment level of school leadership. The independent variables are the school members' assignment location (district office, K–6, 7–8, and 9–12) and position (administrator, faculty, and staff).

A Kruskal–Wallis test was conducted to understand if there are differences between school personnel, based on assignment location and position, and interest in new emergency preparedness training designed specifically for the school environment. The dependent variable is the interest in new emergency preparedness training designed specifically for the school environment. The independent variables are the school members' assignment location (district office, K–6, 7–8, and 9–12) and position (administrator, faculty, and staff). Cronbach's alpha was used to determine the internal consistency reliability of the SPEPS (Bonett & Wright, 2015).

Reliability and Validity

Potential threats to internal validity can include history, maturation, regression, selection, mortality, and selection-interaction (Creswell, 2014). As this study involved a survey instrument

implemented in a single point in time (a 30-day window), the perceived threats are minimal. There was no pretest or posttest involved in this study. Due to the relatively short period for completion of the survey, maturation, regression and mortality are not issues. A random sample of the target population were the respondents and this addresses the possible threats of selection and selection-interaction.

The threat of history may play a part in skewing some of the data. Natural, technological, or intentional disasters are generally unpredictable and any number have occurred in recent history, and these incidents are being highly reported by the media. Should a crisis event occur just prior to or during the execution of the survey instrument, the reports of such an incident may have a profound influence on the respondents' awareness. The influence may be reflected in the responses to the survey. The threat of history is unavoidable as there is no control to assure the studied population receives or interprets what is put out by the media or reacts to the incident or reports of a possible incident.

Content validity of the survey instrument (Huck, 2008) is based on support from the literature on emergency preparedness (ACAPS, 2016; Kano & Bourque, 2007; Kano et al., 2007), literature on research methods (Bryman, 2016; Fowler, 2014), and previous studies (Alba, 2011; Bigante, 2005; Brown, 2008; Graham, 2009; Groves, 2013; Hill, 2015; Maida, 2012; Perkins, 2018; Rider, 2015; Rinaldi, 2016; Tigges, 2008). Reviewed studies included surveys created by the authors, with reliability and validity confirmed through a mixture of pilot testing, expert reviews, and Cronbach's alpha testing. Superintendents and the main staff members responsible for emergency preparedness and school safety, of the districts to be studied, reviewed the SPEPS in a pilot study to establish face and content validity.

Additional content validity comes from the emergency preparedness education, knowledge, and experience of the survey developer. The developer's education, knowledge and experience is a result of a combination of 34 years of service in the U.S. Army, 15 years as a reserve deputy sheriff in an Illinois county (duties including those of an instructor, training officer, and chief of reserves), and 12 years as a volunteer of an Illinois village government emergency management agency (six years as an instructor and the organization's training coordinator). In addition, the survey developer is a volunteer for the IEMA (2018a) as part of a cadre of instructors for the state-sponsored CERT Train-the-Trainer course.

Ethical Procedures

When designing a study, research ethics are an important consideration. In this study, a nonexperimental descriptive survey approach is taken. In the design of the survey, potential risks to participants and respondents were identified and avoided (Fowler, 2014). In the application for candidacy at ACE, the National Institutes of Health Office of Extramural Research web-based training course Protecting Human Research Participants was completed and proof of completion was provided.

In an effort to do no harm to the participants, the ACE Institutional Review Board (IRB) examined the study to ensure any ethical risks are minimal. In the Application—Review of Human Subjects Research submitted to the IRB of ACE, information to be provided indicated the age range of the respondents to be 18 to 64 years and the possibility of some school personnel being 65 years and older. No special or vulnerable populations were targeted or likely to be involved. Respondents did not receive inducements or rewards before, during, or after participation.

The anonymous online survey helped to ensure confidentiality as none of the names or e-mails of the participants were recorded. The introductory e-mail (Appendix B) contained a link to the online survey and explained the benefits, risks, rewards and other instructions. Consent was a two-stage process. The potential respondent voluntarily clicks on the survey link in the e-mail (or manually enter the address into a web browser) to get to the survey site. Once on the survey site, the respondent was presented with the same information found in the e-mail regarding the study. The respondent is required to answer Yes to the single question, asking for consent, on the webpage in order to continue with the survey.

The target population of this survey was the administration, staff and faculty of a K–8 school district, high school district, and all schools associated with the two districts. Students are not part of the study. The survey was available for 49 days and reminder e-mails were sent out. The resulting data remains on an electronic spreadsheet with no identifying details aside from the general demographic questions. This information was stored on one password-protected computer and a backup flash drive which was securely stored in a locked cabinet. Archival data in the form of each school district's Emergency Operations and Crisis Response Plan are securely stored in a locked cabinet. This archival data, along with survey data, are to be held for three years at which time the data is to be properly disposed.

Chapter Summary

The purpose of this study is to determine how the administrations, staffs, and faculties of two school districts, representing elementary schools (Grades 1–6), junior high (Grades 7–8), and high school (Grades 9–12) perceive the state of school and personal emergency preparedness, and emergency preparedness training received or desired. Within Chapter 3 is the foundation for the quantitative cross-sectional research design which used a survey tool to collect

data. Various data types and usage of data is identified. Additionally, the chapter includes details regarding the research procedures, an analysis of the data, and the reliability and validity of the data to be collected and ethical procedures. To be presented in Chapter 4 are the finding from the SPEPS including descriptive analyses and the associations between the variables.

Chapter 4: Research Findings and Data Analysis Results

The purpose of this quantitative cross-sectional research designed study of two Illinois school districts was to discover the perceptions of the administrations, staffs, and faculties as related to the state of emergency preparedness in schools, and emergency preparedness training offered, received and desired. To guide this study, the research question considered was What are the differences in perceptions of emergency preparedness between K–6, 7–8 and 9–12 grade-level school personnel in two northeastern Illinois school districts? The hypothesis guiding this quantitative study was

> H_o: There are no significant differences in perceptions of emergency preparedness between the K–6, 7–8 and 9–12 grade-level school personnel in two northeastern Illinois school districts.
>
> H_a: There are significant differences in perceptions of emergency preparedness between the K–6, 7–8 and 9–12 grade-level school personnel in two northeastern Illinois school districts.

What follows in this chapter is an elucidation of the process of data collection which includes a description of the target audience, the method and coordination to elicit responses, and the timeframe to collect the data. The analyzed data results are presented in order of the sections and questions, or group of questions, as encountered in the SPEPS. A confirmation of reliability and validity of the survey is described. A possible threat of history affecting the survey was identified as two school-related disaster incidents occurred during the survey period. The chapter concludes with a summary.

Data Collection

The study's target population included members of the administrations, staffs, and faculties of each of the schools which made up two school districts in northeastern Illinois. One district represented Grades K–8 (elementary and junior high school) and the second district represented Grades 9–12 (high school). A total of 24 schools make up the two districts servicing all or part of 11 northwest suburban communities near Chicago. The originally projected sample size was 144 respondents (n = 144), which would include two members from each of the administrations, staffs, and faculties found in the schools (2 x 3 x 24). A self-administered closed-ended multiple-choice questionnaire (Appendix A) was developed and presented online using SurveyMonkey with access to the survey provided by a link within an e-mail to a limited audience.

To alleviate concerns of the districts' leadership, direct access to the e-mail addresses of potential respondents (school personnel) was not provided. In telephonic discussions with the superintendent of the K–8 district and the high school district's director of administrative services (the district administrator responsible for school safety and security), the individuals agreed to be intermediaries of the e-mail to be sent out to possible respondents. An e-mail invitation letter and consent information (Appendix B) was sent directly to the superintendent and director. The e-mail and information were presented to each districts' school principals at the March 2019 monthly meetings. After the meetings, district personnel sent the actual e-mails to the individual principals. In turn, the principals were asked to forward the e-mail to at least two personnel each within the particular school's administration, staff, and faculty (minimum of six personnel in each school). Of note is the participation by the school principal (as part of the school administration) was purely voluntary.

The original intent was the survey to be open and available throughout the month of April (30 days). The two districts' monthly meetings with principals prior to April occurred during the latter half of the week of March 11, 2019. The decision was made to have the online survey available March 13, 2019 (the day of the first of the two district meetings). The reason for the decision was the possibility some principals may immediately (after the meeting) disseminate the survey information to school personnel instead of waiting for a later start date. The early start would be an extension to the survey availability resulting in a total of 49 days instead of 30. A planned reminder e-mail (Appendix C) was sent through the districts' leadership to the school principals on April 15, 2019 (the halfway point for the original 30-day window of the survey). Due to unplanned and unanticipated events, two additional reminder e-mails were sent to encourage responses.

Results

The SPEPS consisted of 31 questions found in four sections. The sections are Welcome and Consent Statement (Question 1), Demographics (Questions 2–9), Emergency Preparedness Perceptions (Questions 10–23), and Emergency Preparedness Training (Questions 24–31). The sections contain questions to which the resulting responses provide data which can be applied to the study's main research question as well as determining attempts in compliance of state and federal emergency preparedness guidelines. The questions found in the Emergency Preparedness Perceptions section directly relate to the study's research question of the differences in perceptions of emergency preparedness between K–6, 7–8 and 9–12 grade-level school personnel.

A total of 76 respondents of the targeted audience answered the invitation and accessed the SPEPS. Four respondents were eliminated due to incompleteness in answering the majority

(> 70%) of the questions. In one case, no question was answered (Questions 2–31) after consenting to participate. In three of the four cases, the Demographics section questions were answered, but the majority of the questions in the Emergency Preparedness Perceptions section and Emergency Preparedness Training section were skipped. The lack of answers rendered these cases useless and ineffective for the study. The end result is a total of 72 (n = 72) usable survey responses were received. Only half of the originally anticipated 144 respondents contributed despite several reminder e-mails being sent to encourage participation.

Welcome and Consent Statement

When accessing the survey, the respondent was first presented with a welcome and consent statement and a single question (Question 1) with the possible responses of either *yes* or *no*. Failure to respond in the affirmative resulted in a Thank You screen and the individual unable to access the survey. If the respondent answered *yes*, the survey opened to the Demographics section. According to the survey's access record, no one who gained access to the survey selected *no* to Question 1. What was not recorded was someone accessing the survey welcome page and leaving the page without responding to the single question.

Demographics

Eight independent variables associated with demographics were asked to be identified by school personnel participation in Survey Questions 2 (age); 3 (gender); 4 (race/ethnicity); 5 (highest education level); 6 (current assignment category: administration, staff or faculty); 7 (current assignment grade level: elementary school, junior high school, high school); 8 (length at current assignment); and 9 (total length serving in any school environment, any position). The data gathered from these demographic variables revealed responses of school personnel (n = 72)

came from 38.03% identifying as part of the school administrations, 35.21% identifying as part of the staffs, and 26.76% identifying as part of faculties.

Of the 72 respondents, one respondent at the high school level opted not to answer his assignment category. Two female respondents identified an assignment category, but skipped the question of grade level and did not select the *I prefer not to answer* option. Table 6 provides a breakdown of the survey responses by gender, position category, and grade level of school. A revelation was overall responses were completed by 70.83% female and 29.17% male.

Table 6

Response of School Personnel by Gender, Assignment Category, and School Grade Level

Personnel (n = 72)	Grade level of school			
	Elementary K–6 (15 schools)	Junior high school 7–8 (4 schools)	High school 9–12 (5 schools)	Unidentified (skipped)
Female (n = 51)				
Administration	11	2	1	1
Staff	15	6	1	0
Faculty	10	1	2	1
Male (n = 21)				
Administration	4	2	6	0
Staff	0	2	1	0
Faculty	2	0	3	0
Unidentified position	0	0	1	0

Looking further into the respondents' backgrounds, a discovery made was a wide range of years serving in a current position (Table 7) and serving in any position throughout a career in a school environment (Table 8). Of the female respondents, 72.5% have indicated a career in the school environment exceeding 10 years. Of the male respondents, 76.2% have indicated school careers exceeding 10 years. Overall, 73.6% of the respondents have experience working in a

school environment of 10 years or more. At the other end of the spectrum are those school employees with less than two years into a school career. Reported was 11.7% female and 9.5% male. Of all respondents, 11% have experience working in a school environment of two years or less.

Table 7

Response of School Personnel by Gender and Number of Years in Current Position

	Years in current position			
Gender (*n* = 72)	< 2	2–5	6–9	10+
Female (*n* = 51)	14	13	6	18
Male (*n* = 21)	5	3	6	7

Table 8

Response of School Personnel by Gender and Number of Years in any School Position

	Years in any school position			
Gender (*n* = 72)	< 2	2–5	6–9	10+
Female (*n* = 51)	6	1	7	37
Male (*n* = 21)	2	0	3	16

Emergency Preparedness Perceptions

The Emergency Preparedness Perceptions section consisted of 14 questions (numbered 10–23). The questions are related to opinions regarding the respondent's personal emergency preparedness in the school, as well as perceptions of the school's emergency preparedness. Questions related to the district/school Emergency Operations and Crisis Response Plan are presented and questions regarding the availability of emergency preparedness training offered by the district or school are asked. The section's final question is regarding the district/school leadership commitment to improving emergency preparedness in the school.

Opinions of personal and school emergency preparedness. Survey Questions 10 through 17 elicit the opinions of the respondents as related to personal emergency preparedness and emergency preparedness of schools. The specific disaster categories of natural disaster, technological (man-made) disaster and intentional disaster which may be encountered were introduced. Definitions of the categories were included with Questions 12 and 13.

Respondents were asked to (Question 10) rate the importance for preparing for a school crisis. Five levels of importance (*not important, slightly important, moderately important, important,* and *very important*) were offered. Choosing *important* (fourth level) was 4.17% and the remaining 95.83% chose *very important* (fifth and highest level). When rating the importance of receiving emergency preparedness training (Question 11), 6.94% chose *important* and the remaining 93.06% chose *very important.*

The next two questions had the respondent rate, with respect to the three disaster categories, (Question 12) the preparedness of the current assignment location, and (Question 13) the respondent's personal preparedness in the current assignment location. The five levels of preparedness included *not at all prepared* (first and lowest level), *somewhat prepared* (second level), *prepared* (third level), *quite a bit prepared* (fourth level) and *extremely well prepared* (fifth and highest level). All 72 respondents completed these questions. Two respondents failed to identify an assignment (school level) and could not be included when comparing elementary, junior high school, and high school numbers.

Tables 9 and 10 list the resulting percentages. The standout numbers are the respondents who chose *not at all prepared* or *somewhat prepared* in the technological disaster category. Of location preparedness, a combination of 47.22% of all respondents believe the school is *less than prepared* for a technological disaster. Of personal preparedness, a combination of 48.61% of all

respondents believe to be *less than prepared* for a technological disaster. These numbers are an indication of a weakness or gap in preparation for technological disasters.

Table 9

Question 12: School Personnel Perception of Current Assignment Location's Preparedness

Disaster category	Not at all prepared %	Somewhat prepared %	Prepared %	Quite a bit prepared %	Extremely well prepared %
Natural					
All schools (*n* = 70)	0.00	6.94	13.89	43.06	36.11
Elementary school (*n* = 42)	0.00	9.52	14.29	33.33	42.86
Junior high school (*n* = 13)	0.00	0.00	15.38	53.85	30.77
High school (*n* = 15)	0.00	6.67	6.67	60.00	26.67
Technological					
All schools (*n* = 70)	12.50	34.72	18.06	27.78	6.94
Elementary school (*n* = 42)	11.90	30.95	19.05	28.57	9.52
Junior high school (*n* = 13)	23.08	38.46	15.38	23.08	0.00
High school (*n* = 15)	6.67	40.00	20.00	26.67	6.67
Intentional					
All schools (*n* = 70)	0.00	6.94	20.83	43.06	29.17
Elementary school (*n* = 42)	0.00	4.67	23.81	38.10	33.33
Junior high school (*n* = 13)	0.00	7.69	30.77	38.46	23.08
High school (*n* = 15)	0.00	13.33	6.67	53.33	26.67

Table 10

Question 13: School Personnel Perception of Personal Preparedness in Current Position

Disaster category	Not at all prepared %	Somewhat prepared %	Prepared %	Quite a bit prepared %	Extremely well prepared %
Natural					
All schools (*n* = 70)	0.00	8.33	15.28	43.06	33.33
Elementary school (*n* = 42)	0.00	11.90	9.52	40.48	38.10
Junior high school (*n* = 13)	0.00	0.00	30.77	46.15	23.08
High school (*n* = 15)	0.00	6.67	13.33	46.67	33.33

(*continued*)

Table 10

Question 13: School Personnel Perception of Personal Preparedness in Current Position (continued)

Disaster category	Not at all prepared %	Somewhat prepared %	Prepared %	Quite a bit prepared %	Extremely well prepared %
Technological					
All schools (*n* = 70)	15.28	33.33	15.28	27.78	8.33
Elementary school (*n* = 42)	14.29	33.33	9.52	33.33	9.52
Junior high school (*n* = 13)	30.77	38.46	15.38	15.38	0.00
High school (*n* = 15)	6.67	33.33	20.00	26.67	13.33
Intentional					
All schools (*n* = 70)	0.00	8.33	18.06	41.67	31.94
Elementary school (*n* = 42)	0.00	11.90	14.29	38.10	35.71
Junior high school (*n* = 13)	0.00	7.69	38.46	38.46	15.38
High school (*n* = 15)	0.00	0.00	6.67	53.33	40.00

When comparing and contrasting the responses to Questions 12 and 13 (Tables 9 & 10), not much of a difference is noticed in the overall perceptions of emergency preparedness between the K–6, 7–8 and 9–12 grade-level school personnel exists for natural and intentional disasters. The results indicate the majority have a positive or high confidence level. For the category of technological disasters, perceptions are somewhat evenly divided between low and high confidence. The divided perception levels are more evident when combining the two lowest opinion levels (*not at all prepared* and *somewhat prepared*) into *less than prepared*, and the three highest opinion levels (*prepared, quite a bit prepared* and *extremely well prepared*) into *prepared or better*. The results of location preparedness and personal preparedness, side-by-side using just the two opinion levels, is found in Table 11.

The results for respondents as a single group (all schools), and at each grade level of school, are similar. Greater than 90% of the respondents indicate in the areas of natural disasters

and intentional disasters, personal preparedness and location preparedness are at the *prepared or better* level. The area of technological disasters is where the percentages are more evenly divided between the two opinion levels. The revelation is 47.22% of all school personnel, responding as a single group (all schools), believe the location is *less than prepared.*

Table 11

Combined Perceptions of Preparedness

	Location preparedness		Personal preparedness	
Disaster category	Less than prepared %	Prepared or better %	Less than prepared %	Prepared or better %
Natural				
All schools (*n* = 70)	6.94	93.06	8.33	91.67
Elementary school (*n* = 42)	9.52	90.18	11.90	88.10
Junior high school (*n* = 13)	0.00	100.00	0.00	100.00
High school (*n* = 15)	6.67	93.33	6.67	93.33
Technological				
All schools (*n* = 70)	47.22	52.78	48.61	51.39
Elementary school (*n* = 42)	42.85	57.15	47.62	52.38
Junior high school (*n* = 13)	61.54	38.46	69.23	30.77
High school (*n* = 15)	46.66	53.34	40.00	60.00
Intentional				
All schools (*n* = 70)	6.94	93.06	8.33	91.67
Elementary school (*n* = 42)	4.67	95.24	11.90	88.10
Junior high school (*n* = 13)	7.69	92.31	7.70	92.30
High school (*n* = 15)	0.00	100.00	0.00	100.00

When responding as a single group (all schools) to the question of personal preparedness for technological disasters, 48.61% are considered personally *less than prepared*. Whereas natural and intentional disaster preparedness numbers are similar, technological disasters show the greatest divergence between personnel working within a particular grade level and between the grade levels as well. The area of technological disaster preparedness revealed the largest

number of personnel who believe individually, and the school as a whole, are not adequately prepared.

Further inquiry of the respondent's opinion included identifying the one disaster category which is (Question 14) most likely, and (Question 15) least likely to occur at or near the current assignment location. One respondent failed to answer Question 14. The results shown in Table 12 indicate approximately 93% of all respondents are almost equally divided in the belief either a natural (48.61%) or intentional (44.44%) disaster is most likely to occur at or near the schools, 65.27% of respondents considered a technological disaster as the least likely to occur.

Table 12

Questions 14 and 15: Opinion of a Disaster Most and Least Likely to Occur at or Near Current Assignment

	Most likely		Least likely	
Disaster category	*n*	%	*n*	%
Natural	35	48.61	12	16.66
Technological	4	5.55	47	65.27
Intentional	32	44.44	13	18.05
Unanswered	1	1.38		

The questions in the Emergency Preparedness Perceptions section of the survey continued with the observations of which disaster category the respondent's current assignment location was (Question 16) best prepared, and (Question 17) least prepared. The results shown in Emergency Operations **and Crisis Response Plan.** The district or school Emergency Operations and Crisis Response Plan was addressed and the respondent's (Question 18) possession of a copy and (Question 19) familiarity of the contents of the plan is self-assessed. As shown in Figure 1, 80.56% of the respondents indicated to having a personal copy of the district or school Emergency Operations and Crisis Response Plan. indicate approximately 97% of all respondents

are almost equally divided in the belief either a natural (50%) or intentional (47.22%) disaster is what the schools are best prepared. The largest number (77.77%) considered a technological disaster as the school being least prepared.

Table 13

Questions 16 and 17: Opinion of Which Disaster the Current Assignment is Best and Least Prepared

	Best prepared		Least prepared	
Disaster category	*n*	%	*n*	%
Natural	36	50.00	3	4.16
Technological	2	2.77	56	77.77
Intentional	34	47.22	13	18.05

Emergency Operations and Crisis Response Plan. The district or school Emergency Operations and Crisis Response Plan was addressed and the respondent's (Question 18) possession of a copy and (Question 19) familiarity of the contents of the plan is self-assessed. As shown in Figure 1, 80.56% of the respondents indicated to having a personal copy of the district or school Emergency Operations and Crisis Response Plan. Only 19.44% indicated not having a copy. When asked to self-assess on the degree of familiarity of the Emergency Operations and Crisis Response Plan, two respondents indicated to be *not at all familiar* with the plan and one additional respondent failed to provide an answer. The respondents' reported familiarity is displayed in Figure 2.

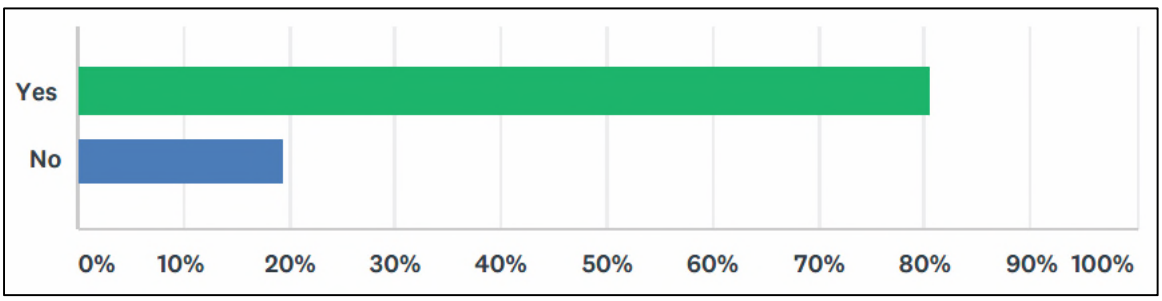

Figure 1: Personal copy of Emergency Operations and Crisis Response Plan.

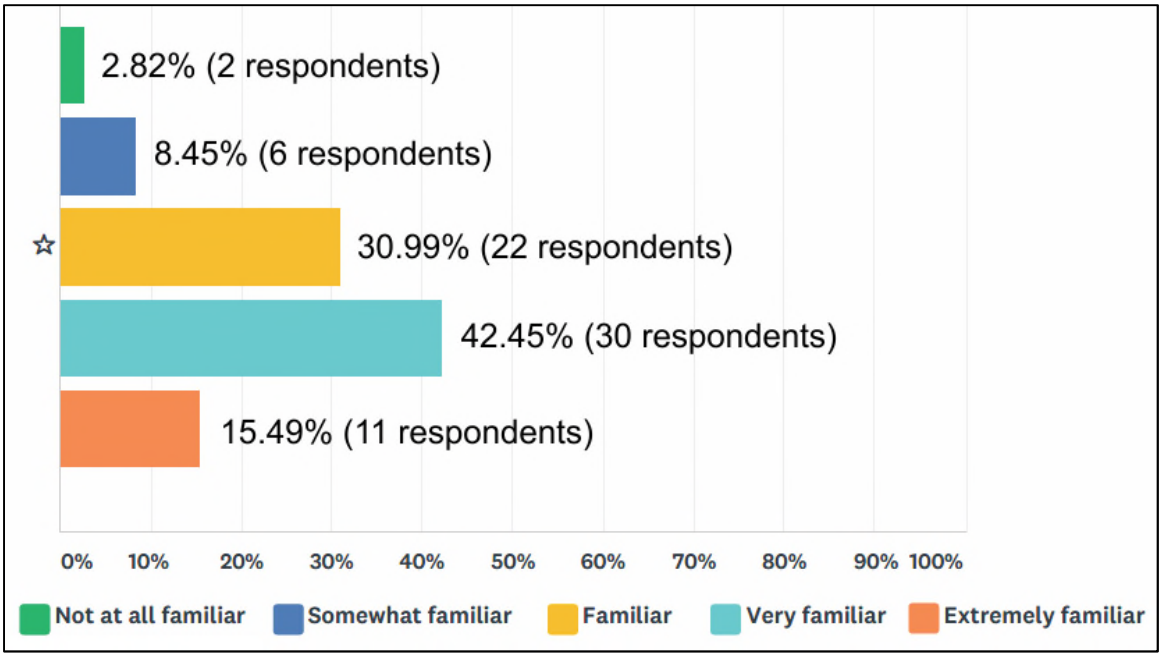

Figure 2: Familiarity with Emergency Operations and Crisis Response Plan.

Respondents were queried as to having a (Question 20) specific assigned role or duty in the event of an emergency, but are not asked to identify any details of the role or duty. The results shown in Table 14 indicate 90.27% responded in the affirmative. Five individuals (6.93%) reported not to having an assigned role or duty, or no knowledge of a role or duty assigned. Two individuals (2.77%) failed to answer the question. These results are indicative as to those involved in an Emergency Operations and Crisis Response Plan knowing individual roles and responsibilities before, during, and after an emergency (USDE, 2013).

Table 14

Question 20: Specific Assigned Role/Duty in the Event of an Emergency

Answer choice	*n*	%
Yes	65	90.27
No	4	5.55
I do not know	1	1.38

Unanswered	2	2.77

Training awareness. Knowledge or awareness of the availability of emergency preparedness training offered by (Question 21) the district or (Question 22) assignment location (school) is asked. The results shown in Table 15 indicate 29.17% are unaware of district offered emergency preparedness training and 25% are unaware of locally offered emergency preparedness training for the school's specific location and environment.

Table 15

Questions 21 and 22: District or Current Assignment Offer Emergency Preparedness Training

	District		School	
Answer choice	*n*	%	*n*	%
Yes	51	70.83	54	75.00
No	7	9.72	9	12.50
I do not know	14	19.44	9	12.50

Leadership commitment. The final question in the Emergency Preparedness Perceptions section is an opinion on the (Question 23) commitment of the district and school leadership to improving emergency preparedness in the school. One respondent failed to address this question. The results shown in Table 16 indicate there are respondents with the opinion leadership is *less than committed* to improving emergency preparedness in the schools though the number is approximately 7% or less. More than half rated the leadership in both the district and school as *extremely committed* to improving emergency preparedness.

Table 16

Question 23: Leadership Commitment to Improving Emergency Preparedness

Leadership	Not at all committed %	Somewhat committed %	Committed %	Quite a bit committed %	Extremely committed %
District (*n* = 71)	0.00	7.04	14.08	28.17	50.70

School (n = 71)	0.00	4.23	14.08	29.58	52.11

Kruskal–Wallis tests were conducted to understand if there are differences between school personnel, based on assignment location and position, with opinions on the commitment of district and school leadership to improving emergency preparedness in the school. The Kruskal–Wallis *H* test showed there was a statistically significant difference in perceived commitment levels of district leadership between the different positions (administrators, faculty, staff), $\chi^2(2) = 9.102$, $p = 0.011$, with a mean rank score of 43.81 for administrators, 28.32 for faculty and 31.83 for staff. The Kruskal–Wallis *H* test disclosed there was not a statistically significant difference in perceived commitment levels of school leadership between the different positions (administrators, faculty, staff), $\chi^2(2) = 2.328$, $p = 0.312$, with a mean rank score of 39.88 for administrators, 32.71 for faculty and 33.06 for staff.

Emergency Preparedness Training

Questions 24 through 31 within the SPEPS are related to emergency drills and emergency preparedness training. Respondents are asked to (Question 24) identify participation in any school emergency drills over the past two years. One respondent failed to make any selection and did not choose the option of *I have not participated in any school emergency drills in the past 2 years*. Of the remaining 71 responses, all had specified having participated in at least one type of school emergency drill. The great number of responses was a signal drills of various types are being conducted by the schools, and personnel are participating. The responses appear to indicate the minimum requirements and standards for the conduct of school safety drills as found in the School Safety Drill Act (2005) are followed though specifically which drill was performed at which school was not explored.

The Illinois School and Campus Security Training Program offers school-related emergency preparedness training in 15 topics/subjects. Respondents were asked to (Question 25) identify any training received specifically from this program. Two respondents failed to answer this question. Forty-eight respondents (68.57%) indicated having not received any training from this program. The remaining listed courses ranged from one respondent (1.43%) to nine respondents (12.86%) having taken one or more of the courses. The low numbers of attendance of this training can be attributed to a number of variables. When reviewing the emergency preparedness classes actually offered for years 2018 and 2019, the course listings were limited and only related to the topics of developing emergency operations plans, earthquake preparedness, student behavioral threat assessment, and bomb incidents (Illinois School and Campus Safety Resource Center, 2018b). These topics, when offered, are spread throughout the state and are directed more toward the administrative audience or special positions (e.g., School Threat Assessment Team member, school resource officer) rather than the general members of the staff or faculty.

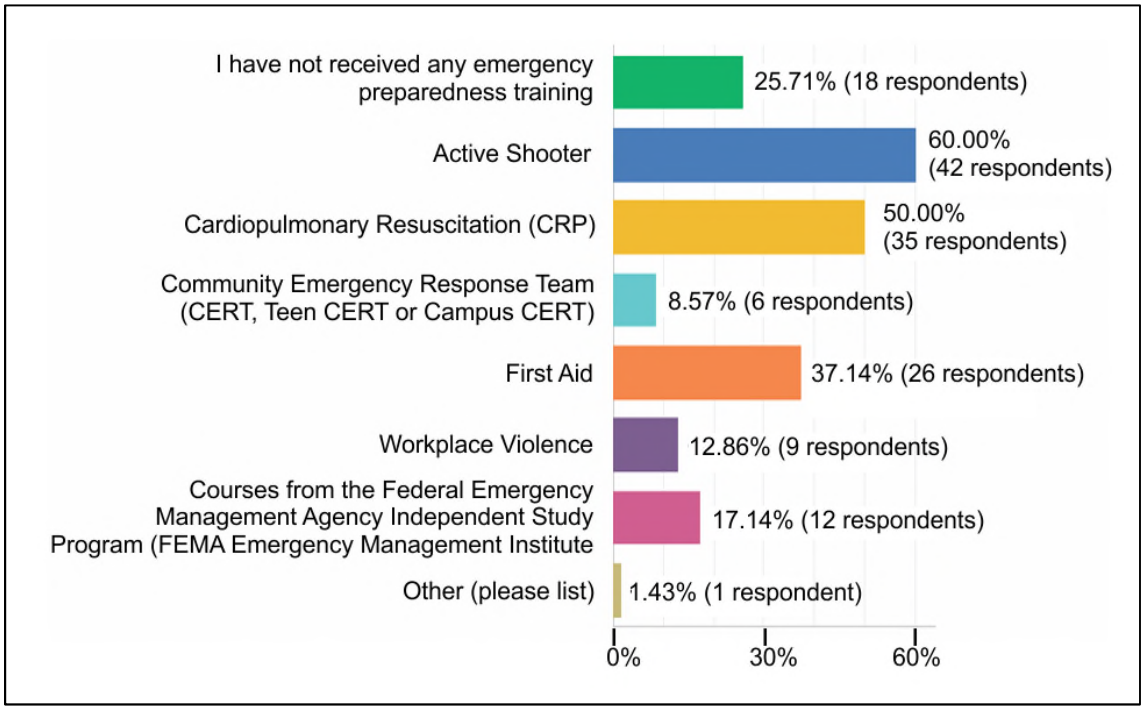

Figure 3: Emergency preparedness training received.

Respondents were asked to (Question 26) identify other emergency preparedness training received from various sources (district, school, other agencies, etc.). Two respondents failed to answer this question. The frequency of responses, with the greatest being active shooter training (60%), can be found in Figure 3 on the previous page.

Respondents were asked of (Question 27) overall interest in participating in emergency preparedness training designed specifically for the Illinois school environment. Shown within Table 17, 86.11% are interested in the possible training. Only two respondents (2.78%) were firm in declaring a lack of interest. Eight respondents (11.11%) chose the *I do not know* option.

Table 17

Question 27: Interest in Emergency Preparedness Training Designed Specifically for the School Environment

Answer choice	*n*	%
Yes	62	86.11

No	2	2.78
I do not know	8	11.11

Kruskal–Wallis tests were conducted to recognize if there are differences between school personnel, based on assignment location and position, and interest in new emergency preparedness training designed specifically for the school environment. The Kruskal–Wallis *H* test showed there was not a statistically significant difference in the interest of school personnel (administrators, faculty, staff) participating in new emergency preparedness training designed specifically for the school environment, $\chi^2(2) = .278$, $p = 0.870$, with a mean rank score of 36.04 for administrators, 34.84 for faculty and 36.84 for staff. The Kruskal–Wallis *H* test showed there was not a statistically significant difference in the interest of school personnel of the various school levels (elementary school, junior high school, high school, not identified) participating in new emergency preparedness training designed specifically for the school environment, $\chi^2(3) = .2936$, $p = 0.402$, with a mean rank score of 36.67 for elementary school, 36.81 for junior high school, 33.97 for high school and 50.00 for those who opted not to identify a school level.

Other questions addressed interest in emergency preparedness training categories and topics. Included were (Question 28) disaster preparedness, (Question 29) awareness in the educational workplace, and (Question 30) workplace violence and active shooter. Tables 18 and 19 show interest or lack thereof specific topics of school emergency preparedness training.

Table 18

Questions 28 and 29: Interest in Specific Topics of Emergency Preparedness Training

Emergency preparedness training	*n*	%
Disaster preparedness		
Not interested	8	11.27
Roles and responsibilities	43	60.56
Hazards and their potential impact	50	70.42
Personal and organizational preparedness	48	67.61
Awareness in the educational workplace		
Not interested	3	4.23
Situational awareness	57	80.28
Security awareness	57	80.28
Surveillance awareness	50	70.42

Table 19

Questions 30 and 31: Interest in Specific Topics of Emergency Preparedness Training

Emergency preparedness training	*n*	%
Workplace violence and active shooter		
Not interested	5	7.04
Workplace violence	57	80.28
Active shooter	63	88.73
Community Emergency Response Team	53	74.65

Reliability and Validity

Reliability and validity of the survey was confirmed through a mixture of expert reviews and pilot testing. The survey questions were provided to the studied districts' superintendents and the main staff members responsible for emergency preparedness and school safety for review. As a result of the reviews, no additions, deletions, or changes were requested to the questions. The same questions were posted in the online survey and a one-week pilot testing was initiated to establish face and content validity. The two superintendents and main staff members

responsible for emergency preparedness were invited to participate in the pilot testing (n = 4). The superintendents were given the option to offer other district members access to participate in the pilot study. During the pilot testing week, three respondents from the two school districts participated. Testing of the pilot study using Cronbach's alpha determined the reliability to be good at .70. Three of the component variables tested had zero variance and were removed from the scale by the SPSS software. All three respondents had recorded the same response to three of the questions.

Following pilot testing, a six-week period for the survey was initiated. A total of 76 respondents of the targeted audience accessed the survey. Of the responses received, four respondents were eliminated due to overall (> 70%) incompleteness of the survey. The lack of answers rendered these cases useless and ineffective for the study. Of the 72 usable survey responses, Cronbach's alpha testing determined the reliability be .856 indicating a high level of internal consistency.

A potential threat to internal validity was history possibly playing a part in skewing some of the data. The effects of history are not at all times straightforward and the effects are lessened by the short time period between measures and observations (Creswell, 2014). As various types of disasters which can befall at or near a school are unpredictable, such occurrences cannot be predicted or anticipated in the survey planning process. There is a possibility of an incident, occurring during a survey period, influencing a survey respondent's awareness or desire to participate. Two incidents occurred the week of April 15, 2019. Coincidentally, the incidences occurred the second and third day after a planned reminder e-mail was sent which was to mark the middle of the survey window and encourage participation.

On Tuesday April 16, 2019, an emergency situation occurred at one of the high schools included in the study. The incident was a teenage student was discovered to have brought a handgun into the school. An arrest of the student was made the same day without further incident (Struett, 2019). The next day, April 17, another school emergency incident made national news and was highly publicized. A result of the incident was the closing of all Denver, Colorado schools. The closings were due to a creditable threat of an armed woman who was infatuated with the 1999 Columbine High School massacre. The woman had travelled to Colorado, from Florida, to arrive before the 20th anniversary of the shooting and had purchased a shotgun and ammunition. By the end of the day, the woman identified as the potential threat was discovered dead of an apparent self-inflicted gunshot wound (Turkewitz & Healy, 2019).

An initial consideration was as a result of the incidents, a greater number of responses may be received from the possible respondents who had held out at this point in time. The opposite effect may be potential respondents are weary of all the stories of violence and guns recently in the news, and is not an incentive to respond to the survey. The weekly number of responses received during this study, reminder e-mails, and the two emergency preparedness-related incidents are shown in Figure 4. The resulting number of new responses received during the week of April 15 (week ending April 21) was equal to the number of responses received the previous week prior to the incidents (11 new respondents in each of the weeks). With the incidents fresh in mind, an unplanned reminder e-mail was sent the week of April 22 in an attempt to prompt more respondents. The e-mail was sent at the beginning of the last full week the survey would be open. The result was an additional six new responses received by April 28, and no others by the close of the survey on April 30.

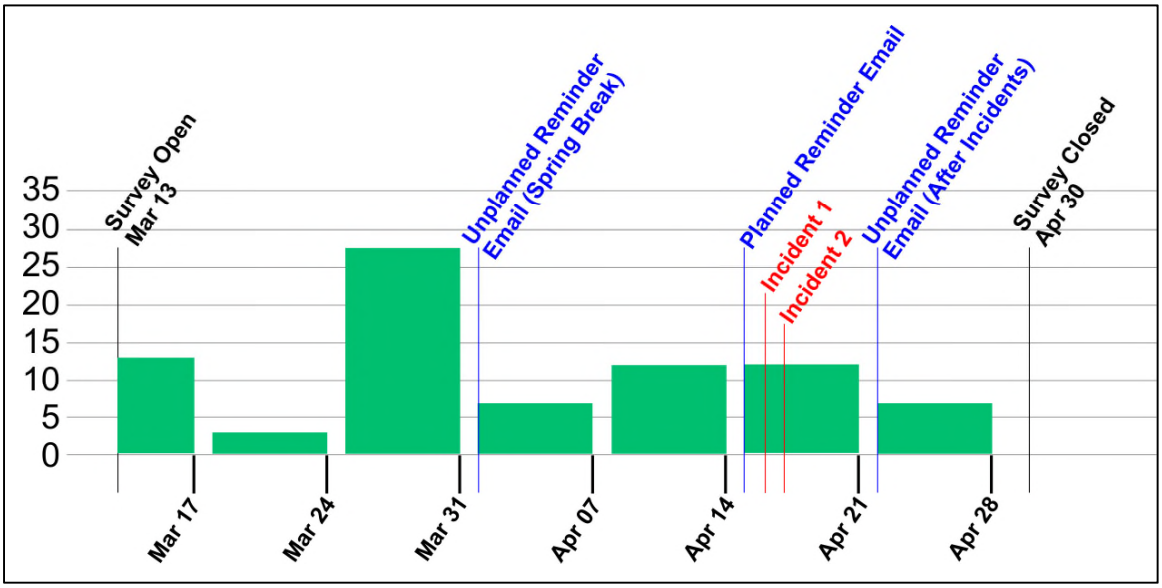

Figure 4: Timeline of survey and weekly number of responses received.

Chapter Summary

Chapter 4 is a culmination of research findings and reveals the results of the analysis of the data collected. The study's target audience was identified and the process of getting the survey to the audience was explained along with some obstacles encountered. An addition to the original process was the perceived necessity to send out multiple reminder e-mails to elicit responses. Data results from the survey questions is presented. The reliability and validity of the survey is addressed. Chapter 5 is a discussion and conclusion of the study. Key findings are summarized, analyzed and interpreted. A conclusion is drawn.

Chapter 5: Discussion and Conclusion

The purpose of this study is to discover the current perceptions of school personnel of two Illinois school districts representing elementary schools (Grades K–6), junior high schools (Grades 7–8), and high schools (Grades 9–12). The personnel queried are members of a school's administration, staff, and faculty. The perceptions explored are related to emergency preparedness of the school, the individual's own emergency preparedness in the school environment, and the emergency preparedness training offered, received and desired by the individual. The single research question of this study was what are the differences in perceptions of emergency preparedness between K–6, 7–8 and 9–12 grade-level school personnel in two northeastern Illinois school districts? The results failed to reject the null hypothesis of there are no significant differences in perceptions of emergency preparedness between the K–6, 7–8 and 9–12 grade-level school personnel studied. Respondents tended to rate the same way (positively or negatively) for the various topics, categories of disasters and across the grade levels.

Of significance is the information provided regarding the current level of emergency preparedness training actually received by school personnel. The study can additionally be regarded as a training needs analysis as the study's survey and resulting data may reveal school and school personnel training needs. The findings of this study are offered to the district leaders who may use the information to develop and implement strategies to raise the self-efficacy of school personnel in the area of emergency preparedness.

Findings, Interpretations, and Conclusions

Overall findings in this study appear to extend knowledge of emergency preparedness perceptions and emergency preparedness training for Illinois school personnel. Only one previous study, *Crisis Preparedness* (Maida, 2012), was discovered which pertained to Illinois

schools and emergency preparedness. In Maida's (2012) study, the target audience identified included all elementary and secondary school administrators in the southwest region of a large urban city. This target audience was limited to one category of school personnel, included public and private schools, and the respondents' schools were located in a different geographical areas and school districts in Illinois. No previous studies were found on the districts surveyed in the study.

Previous school emergency preparedness-related studies discovered had been found for other states, districts and schools. These studies typically focused on one particular segment of school personnel and did not include all school personnel found in the school administration, staff and faculty (Rebmann et al., 2016; Werner, 2014, 2015). Hill (2015) conducted a study of the perceptions of Kansas state K–8 school administrators in preparedness for a major school crisis. The sample size of administrators included 72 respondents ($N = 72$). The category or type of crisis was not defined and only the school administrators were surveyed. The survey tool used a 5-point Likert-type scale for perception questions. A result of Hill's (2015) study revealed 70% of the respondents perceive in the case of a major school crisis, they are moderately prepared or better.

To compare Hill's (2015) perception discovery to the current Illinois study, only the data for administrative personnel in Illinois K–8 schools were used. The limiting of the respondents reduced the original all school personnel population (K–8 and high school) of $N = 72$ down to $N = 19$ administration only in K–8 schools. The Illinois study had three categories for types of disasters unlike Hill's major school crisis (undefined) and the 5-point Likert-type scale level ranges used were *not at all prepared* (1 point) to *extremely well prepared* (5 points). The perception levels were equivalent point-wise to Hill's survey levels. The results for natural

disasters preparedness was 84.21% (*N* = 16); technological (man-made) disasters at 52.64% (*N* = 13); and intentional disasters at 100% (*N* = 19). The percentages for natural and intentional disasters exceed Hill's finding of 70%. What stands out negatively is technological disasters at only 52.64%. All disasters are not the same. Impact and responses and conditions are different when addressing the various types of disasters. The Illinois study indicated an unbalanced (low) opinion of technological disasters when compared to natural and intentional disasters. The low opinion is a possible indicator of an area which needs further attention.

Other school emergency preparedness-related studies discovered limited the type of disaster, crisis or emergency explored, such as only addressing active shooter incidents (Embry-Martin, 2017; Hartz, 2018; Rider, 2015). This limitation or isolation is important to note as emergency preparedness may be affected by individuals' attitudes toward different hazards. For example, an individual's belief held for a natural disaster may not necessarily be the same for a technological disaster (FEMA, 2014). The data from the SPEPS utilized in this study revealied a higher level of confidence in natural disaster and intentional disaster preparedness and a much lower level of confidence in technological disaster preparedness.

In the study by Rider (2015), the perceptions of Mississippi high school teachers' preparedness for an active shooter incident were examined. The teacher population sample size was 418 (*N* = 418). A 4-point Likert-type scale was used in Rider's survey and ranged from *strongly disagree* (1 point) to *strongly agree* (4 points). For the question of perceptions of preparedness to respond to an active shooter incident, the mean was 2.93. Rider suggested the respondents are in a minor agreement to be prepared to react appropriately to an active shooter incident.

The Illinois study used a 5-point Likert-type scale level ranging from *not at all prepared* (1 point) to *extremely well prepared* (5 points). The category of intentional disaster was examined, which includes active shooter incidents. If extracting only high school teachers from the original all school personnel population of $N = 72$, the number becomes $N = 5$. The mean is 4.2 which is *quite a bit prepared*. If including all Illinois school personnel and all schools (K–8 and high school), the population is back to $N = 72$ and the mean is 3.97, just under *quite a bit prepared*. Illinois personnel show a higher opinion of preparedness for intentional disasters. The higher opinion may be an indicator of the emphasis which this category of disasters has received over the past few years.

Other sources of literature and archival data reviewed included the federal government, the state of Illinois, and the two studied school districts. A discovery was there is no comprehensive emergency preparedness training program outlined or developed for school personnel in Illinois. State-mandated school emergency preparedness-related items identified included emergency operation plans and conducting various emergency drills in schools (Illinois Emergency Management Agency Act, 2013; School Safety Drill Act, 2005), but did not address actual conduct or outline of training.

Carlton et al. (2017) revealed state agencies or organizations charged with keeping schools safe are often called state school safety centers. In the case of Illinois, the state school safety center is the ESSC whose web page has been in a static state of being developed since March of 2018 when the site was first accessed during the literature review for this study (ISBE, n.d.). A recent review (May 2019) of the web page revealed no changes or updates. Ironically, the second to last bullet point found at the bottom of the page states “Training Opportunities—*Check back Soon for Training Dates and Locations*!” (ISBE, n.d.). This bullet and information

have not changed in over a year. As the page has no posted or last revised date to be found, a possibility exists the page being static much longer than the past year. With no specified training programs identified, a possible explanation as to why emergency preparedness training received by schools is a patchwork, in which some areas are covered while others are not, is revealed.

The theoretical framework guiding this study engaged significant elements of Maslow's (1943) hierarchy of needs and the CSSF (GADRRRES, 2017a). The second level of Maslow's hierarchy of needs, satisfying the need for safety, is considered in the analysis and synthesis of the literature and survey data related to emergency preparedness as are Pillar 2, School Disaster Management Responsibilities, and Pillar 3, Risk Reduction and Resilience Education of the Comprehensive School Safety Framework.

The research question guiding this study was to discover the differences in perceptions between K–6, 7–8 and 9–12 grade-level school personnel of emergency preparedness in the schools and emergency preparedness training offered, received and desired. What was discovered failed to reject the null hypothesis of there is not a significant difference in the overall perceptions of emergency preparedness between the three school grade levels. How school personnel responded to the different topics and disaster categories can be a catalyst as part of a training needs assessment and an indication of areas of self-efficacy which may need to be raised.

As revealed earlier, the extent schools in the United States are prepared for disasters and emergencies is not well known (Kano et al., 2007). This revelation was made 12 years ago, nonetheless appears to still be valid. During the literature review, various studies and peer-reviewed articles and archival data were discovered. When evaluating the literature current

within the past five years, a narrow focus was evident on certain variables such as geography (a specific state), the target audience studied or the type of school disaster event analyzed.

Examples included studies of the perceptions of teachers-only and active-shooter incidents (Embry-Martin, 2017; Hartz, 2018; Rider, 2015). Other studies examined multiple types of school disaster events, but limited the perceptions of the studied audience to school counselors (Werner, 2014), school social workers (Werner, 2015), or school nurses (Rebmann et al., 2016). The way school personnel perceive various disasterous events cannot be assumed to be the same amongst one another. Some personnel are better prepared than others. Some disaster events are better planned and trained for than others. Some personnel may be left out entirely in the planning process or having an assigned role during a disaster. What is trained for and practiced in another state, such as California, is not necessarily the same as Illinois. There is no one national standard.

Knowledge is extended in the study where all school personnel of the studied Illinois districts had the opportunity to have school personnel perceptions and opinions examined. This study did not limit itself to a single disaster event. This information, for the two districts and the personnel found in those schools, has not been discovered elsewhere.

Limitations

This research was limited to two northeastern Illinois public school districts with a total of 24 schools servicing all or part of 11 northwest suburban communities near Chicago, Illinois. A lower than expected number of responses (72 out of 144) was received for the School Personnel Emergency Preparedness Survey. The result was a smaller sample size than anticipated. Though there was a smaller sample, significant relationships from the data were still found. Indicated is an archetypal distribution of the population which is considered

representative of the school levels (elementary school, junior high school, and high school) and school personnel categories (administration, faculty, and staff) to whom results are generalized. The smaller sample size appears not to be a threat to internal and external validity.

A change in procedure and an event occurring during the survey period have been identified as possible reasons to explain the low participation in the survey. The procedural change involved the disallowance of sending e-mail invitations and reminders out to the target audience directly, and instead putting the dissemination in the hands of district and school leadership. During the survey period, the timing was off in which a weeklong break occurred shortly after initiating the survey availability.

Control of Survey E-Mail

As described earlier, to alleviate concerns of district leadership, the survey e-mails went through different intermediaries before getting to the target audience. The e-mail invitation was sent to the district leadership who then forwarded to the 24 principals who lead each school. The principals were then to forward the e-mail to at least six personnel within the particular school led. The same scenario is true of the planned and unplanned survey reminder e-mails.

The only e-mails which can be confirmed as being sent to the intended audience were those sent to the district leadership. Though the identities of the responding schools were not revealed by the survey, gross numbers indicated a possibility of as few as half of the 15 elementary schools, four junior high schools and five high schools responded. A better access and control of the e-mails to be sent is necessary to take away the possible obstacle of an intermediary not following through with the e-mail distribution.

Survey Timing

The survey was originally scheduled to be available for the month of April only. For reasons described earlier, the survey was actually made available from mid-March until the end of April. The time period coincided with the spring breaks of both school districts (the last week of March) and leading into the final two months of the school year. Possible conflicts existed with the break and other priorities and deadlines school personnel have in preparation with end-of-school-year commitments. Greater participation may have been achieved if offered earlier in the school year between the winter and spring breaks.

Recommendations

FEMA (2018) revealed emergency preparedness is a shared responsibility which includes the whole community. The data collected from this study is valuable as an application to the two studied districts. To be noted is the two studied districts encompasses a small part of a large number of suburban communities outside a major metropolitan city. A residential community (village, town, or city) in Illinois may be serviced by a single elementary school district and single high school district, or a combined single unified school district. Of note is some communities are split between different school districts. This situation requires the individual communities' governments, departments and agencies, and other resources, to be coordinated and shared between more than one school district.

Future studies could repeat and expand on this study to include more districts and schools than the two originally chosen, increasing the target audience and geographical, social and political environments. Another example could comprise of a study which reveals the school employee perceptions of an elementary district and high school district which directly border the districts in this study, and then compare and contrast the results between the two studies.

Expanding on the districts studied may reveal (a) the opinions of school personnel reflect the successes or failures of a district in coordination with the particular local governmental bodies (multiple communities); or (b) some districts have better, more innovative programs to enhance emergency preparedness in schools.

According to the USDE (2013), a needs assessment which includes school personnel perceptions can help identify key issues needing attention and offer a comprehensive picture of school health and safety. Of the three categories of disaster types (natural, technological and intentional) addressed in this study, the opinions recorded indicate technological disasters are the least prepared for in the school environment both as a whole (the school) and as individuals. Technological disasters are catastrophic incidents caused by an error in the control of, or a malfunction of, technology which may cause destruction, death, pollution, and environmental damage. The events may be a result of an accidental or deliberate human act, or are a result of being triggered by natural events (FEMA, 1993; Gunn, 1990). Technological disasters are one area which should be explored and training offered to alleviate concerns and improve self-efficacy in the school.

In the SPEPS, an overall general question regarding receiving emergency preparedness training designed specifically for the Illinois school environment was presented. The overwhelming majority (86.11%) indicated an interest in such training. This question was followed by three more questions which presented specific school-related emergency preparedness topics and associated modules with learning objectives. Between 4.23% and 11.27% of the respondents were not interested in any of the training presented. The majority (88.73% or greater) indicated an interest in receiving emergency preparedness training designed specifically for the Illinois school environment.

The results of this study should be considered a training needs analysis and be further explored and offered to school personnel. The emergency preparedness topics offered for selection in the survey exist in various formats. Many of the topics can be found as independent study program courses (Table 3) found on the EMI (2018c) website. Information from these courses, with the assistance of emergency management subject matter experts or instructors, can be redeveloped into courses which include classroom time, hands-on exercises and drills.

Another training program the school personnel indicated an interest in (74.65%) was CERT training. CERT training is available in a number of locations and times throughout the year. The training is offered by some of the various local communities' emergency management agencies. In the case of the districts found in this study, CERT training is offered at the local community college which services the same communities as the school districts (Harper College, 2019). School personnel could be made better aware of the availability of this course.

Implications for Leadership

Emergency preparedness for schools is not a new concept. There is a long history of disasters, of various types, which can affect schools, school personnel, students and families. In the first 19 weeks of 2019 alone, there were 15 school shootings in the United States which gained national media attention (Lou & Walker, 2019). On April 17, 2019, when this study's survey was being conducted, a gun-related incident occurred at one of the schools included in the study. No deaths or injuries occurred, but this incident did not receive national media attention (Struett, 2019).

During the springtime of 2019, the central United States experienced an acute weather season which included severe thunderstorms and tornadoes (Sosnowski, 2019). Flash flooding and tornadoes had been experienced in the months of April and May in central, southern and

eastern United States forcing schools to cancel classes. In one incident of the severe weather and its effect on schools, a Hinds County school bus in Utica, Mississippi was trapped by two trees on the road. The bus driver and student on board were physically unharmed (Navarro & Schmidt, 2019).

School emergency preparedness-related studies discovered from over the past 20 years vary in certain areas other than just geography. Some limit the studied audience to a particular segment of the school personnel (e.g., principals, students, faculty, librarians), but not all of the school personnel. In addition, other studies limited the particular disaster type or event (e.g., active shooter). A number of studies and articles addressed the effect disasters have on students and school personnel. This study was conducted as an effort at mitigation and prevention, discovering what Illinois school personnel perceive about emergency preparedness and the variety of possible disasters which can affect the school environment.

Two organizations have been identified as emphasizing the need of inclusion of all school personnel in emergency preparedness planning and implementation. The National School Safety and Security Services revealed the first of the five key strategies for school security and emergency preparedness planning is “training school administrators, teachers, and support staff (school resource officers and security officers, secretaries, custodians, bus drivers, etc.) on school violence prevention, school security, school threat assessment, and school emergency planning best practices” (Trump, 2019, para. 2). Information on the National School Safety Center (2019a) website for Safe Schools Week, included the following about working with school employees when addressing school safety:

> Often school employees are the only contacts community residents have with a school. As inside authorities, employees’ attitudes and opinions carry a great deal of weight

> locally. Consistent district communication can minimize internal conflict and promote teamwork. Take the time to circulate among school employees, asking for advice based on their firsthand experiences. (p. 3)

The same information is found on the National School Safety Center (2019b) handout "Working Together to Create Safe Schools."

The findings from this study reveal the perceptions across different school personnel and at different school grade levels. In the case of these two particular school districts, the school employees generally agree amongst one another regarding emergency preparedness for the three disaster category types. What differs is the perceived level of preparedness. In the cases of natural disasters and intentional disasters, the majority agree as being *prepared or better*. Conversely, a schism exists in the case of technological (man-made) disasters where the greater majority considers the schools and individually *less than prepared*.

Revealed in this study was the majority of school personnel are open to enhanced emergency preparedness training. Included was the training received or training on emergency preparedness topics not yet considered or covered. Using this study as at least a partial needs analysis, areas of emergency preparedness training enhancements or additions may be revealing to district and school leadership.

Chapter Summary

An overview of previous chapters in this study were presented in Chapter 5. The purpose of the study is reiterated and the studied population identified. The research question is presented and a statement is made of the resulting data failing to reject the null hypothesis of there are no significant differences in perceptions of emergency preparedness between the K–6, 7–8 and 9–12 grade-level school personnel studied.

Findings, interpretations and conclusions were given. An extension in the knowledge of emergency preparedness perceptions and training for Illinois school personnel appears to have occurred. It is revealed that similar studies, previously conducted, do not comprise all school personnel, and are not in the context of including all three disaster categories which can befall the school environment. Limitations of the study were revealed, recommendations presented and implications for leadership expressed.

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Appendix A: School Personnel Emergency Preparedness Survey

School Personnel Emergency Preparedness Survey

Welcome and Consent Statement

You have been invited to participate in a research study titled *Emergency Preparedness Training Perceptions of K-12 School Personnel: A Cross-Sectional Study of Two Illinois School Districts*. This study is being conducted by Robert J. Leahy, Jr., a doctoral candidate of the American College of Education. You were selected to participate in this study because you are part of the administration, staff or faculty of an Illinois K-12 district or school. This study/survey is not intended for students or anyone under the age of 18.

The purpose of this research study is to examine the level of emergency preparedness training in the school environment, the perceptions of school personnel regarding this training, and the level of interest in receiving additional or enhanced emergency preparedness training specifically designed for the Illinois school environment. If you agree to take part in this study, you will be asked to complete this online survey. The survey will ask demographic and background questions, opinions about emergency preparedness, and questions regarding emergency preparedness training received or desired. The survey will take you approximately 20 minutes to complete.

You may not directly benefit from this research. However, we hope that your participation in the study may give insight of the emergency preparedness of our schools and school personnel to keep everyone safe at our education institutions.

We believe there are no known risks associated with this research study. However, as with any online related activity, the risk of a breach of confidentiality is always possible. To the best of our ability your identity will be anonymous. We will minimize any risks by not recording your email address or asking your identity.

Your participation in this study is completely voluntary and you can withdraw at any time. You are free to skip any question that you choose, but we ask that you select the "I prefer not to answer" option for any question you do not wish to provide a response.

By clicking **Yes** to question 1 below, you are indicating that you are at least 18 years old, have read and understood this consent form and agree to participate in this research study. You will then be directed to the School Personnel Emergency Preparedness Survey.

* 1. Do you consent to take the School Personnel Emergency Preparedness Survey?

- ◯ Yes
- ◯ No

1

School Personnel Emergency Preparedness Survey

Demographics

2. Which category below includes your age?

- ◯ 18-21
- ◯ 22-34
- ◯ 35-44
- ◯ 45-54
- ◯ 55 or older
- ◯ I prefer not to answer

3. What is your gender?

- ◯ Female
- ◯ Male
- ◯ Other (specify)
- ◯ I prefer not to answer

4. What is your race/ethnicity?

- ◯ Asian
- ◯ American Indian or Alaskan Native
- ◯ Black or African-American
- ◯ Hispanic/Latino
- ◯ Some other race (please specify)
- ◯ Native Hawaiian or other Pacific Islander
- ◯ White/Caucasian
- ◯ From multiple races
- ◯ I prefer not to answer

5. What is the highest level of school you have completed or the highest degree you have received?

- ◯ High school degree or equivalent (e.g., GED)
- ◯ Some college but no degree
- ◯ Associate degree
- ◯ Bachelor degree
- ◯ Other (please specify)
- ◯ Master degree
- ◯ Doctorate
- ◯ I prefer not to answer

6. What is your primary position category in the district or school?

- ◯ Administrator (Superintendent, Principal, Assistant Principal, Dean, Director, etc.)
- ◯ Faculty (Teacher, Coach, Teacher's Aide, etc.)
- ◯ Staff (Clerical Assistant, Counselor, Custodian, Librarian, Resource Officer, Secretary, Student Advisor, etc.)
- ◯ I prefer not to answer

7. Where do you spend a majority of your time during the school day (your current assignment location)?

- ◯ District Offices
- ◯ Elementary School
- ◯ Junior High School
- ◯ High School
- ◯ I prefer not to answer

8. How long have you been at your present assignment?

- ◯ Less than 2 years
- ◯ 2-5 years
- ◯ 6-9 years
- ◯ 10+ years
- ◯ I prefer not to answer

9. How long have you worked in any school environment (in any position)?

- ◯ Less than 2 years
- ◯ 2-5 years
- ◯ 6-9 years
- ◯ 10+ years
- ◯ I prefer not to answer

School Personnel Emergency Preparedness Survey

Emergency Preparedness Perceptions

10. In your opinion, how important do you feel it is to prepare for a major school crisis?

Not Important	Slightly Important	Moderately Important	Important	Very Important
☆	☆	☆	☆	☆

11. In your opinion, how important is it to receive emergency preparedness training?

Not Important	Slightly Important	Moderately Important	Important	Very Important
☆	☆	☆	☆	☆

12. In your opinion, how prepared is your current assignment location with respect to the following types of disasters?

Natural Disasters: tornadoes, flooding, extreme heat/cold, etc.

Technological (Man-made) Disasters: hazardous materials, chemical, biological, etc.

Intentional Disasters: campus intruders with a weapon (e.g., active shooter)

	Not at all prepared	Somewhat prepared	Prepared	Quite a bit prepared	Extremely well prepared
Natural	◯	◯	◯	◯	◯
Technological (Man-made)	◯	◯	◯	◯	◯
Intentional	◯	◯	◯	◯	◯

13. In your opinion, how prepared are you in your current assignment location with respect to the following types of disasters?

Natural Disasters: tornadoes, flooding, extreme heat/cold, etc.

Technological (Man-made) Disasters: hazardous materials, chemical, biological, etc.

Intentional Disasters: campus intruders with a weapon (e.g., active shooter)

	Not at all prepared	Somewhat prepared	Prepared	Quite a bit prepared	Extremely well prepared
Natural	◯	◯	◯	◯	◯
Technological (Man-made)	◯	◯	◯	◯	◯
Intentional	◯	◯	◯	◯	◯

14. In your opinion, which ONE of the disasters listed below is MOST likely to occur at/near your current assignment location?

- ○ Natural disaster
- ○ Technological (man-made) disaster
- ○ Intentional disaster

15. In your opinion, which ONE of the disasters listed below is LEAST likely to occur at/near your current assignment location?

- ○ Natural disaster
- ○ Technological (man-made) disaster
- ○ Intentional disaster

16. In your opinion, for which ONE of the disasters listed below is your current assignment location BEST prepared?

- ○ Natural disaster
- ○ Technological (man-made) disaster
- ○ Intentional disaster

17. In your opinion, for which ONE of the disasters listed below is your current assignment location LEAST prepared?

- ○ Natural disaster
- ○ Technological (man-made) disaster
- ○ Intentional disaster

18. Do you have a personal copy of the district or school Emergency Operations and Crisis Response Plan?

- ○ Yes
- ○ No

19. How familiar are you with the contents of the district/school Emergency Operations and Crisis Response Plan?

Not at all familiar	Somewhat familiar	Familiar	Very familiar	Extremely familiar
☆	☆	☆	☆	☆

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20. Do you have a specific assigned role/duty in the event of an emergency at your current assignment location?

For example:

· Teachers are responsible for the supervision of students and shall remain with students until directed otherwise.

· Counselors provide assistance with the overall direction of the incident management procedures at the school.

· School Nurse administers first aid or emergency treatment.

- ◯ Yes
- ◯ No
- ◯ I do not know

21. Does your district provide or offer emergency preparedness training?

- ◯ Yes
- ◯ No
- ◯ I do not know

22. Does your current assignment location provide or offer emergecy preparedness training for its specific location and environment?

- ◯ Yes
- ◯ No
- ◯ I do not know

23. In your opinion, how committed is your district and school leadership to improving emergency preparedness in your school?

	Not at all committed	Somewhat committed	Committed	Quite a bit committed	Extremely committed
District	◯	◯	◯	◯	◯
School	◯	◯	◯	◯	◯

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School Personnel Emergency Preparedness Survey

Emergency Preparedness Training

24. Check any of the following school emergency drills you may have participated in the past 2 years.

If you have not participated in any of the listed drills, please check the first box.

- ☐ I have not participated in any school emergency drills in the past 2 years
- ☐ Bus Drills (e.g., fire, suspicious items, hazardous materials, accident)
- ☐ Evacuation Drills (e.g., suspicious item, hazardous materials, bomb threats, earthquake)
- ☐ Law Enforcement Drills (e.g., shooting incidents, bomb threats, suspicious persons, hazardous materials)
- ☐ Severe Weather/Shelter-in-place Drills (e.g., shear winds, lightning, tornados, earthquakes, hazardous materials, biological, chemical and nuclear weapons)
- ☐ Other (please list):

25. Check any of the following training you may have received specifically from the *School and Campus Security Training Program* (Illinois state offered training).

If you have not received any of the listed training, please check the first box.

- ☐ I have not received any training from the *School and Campus Security Training Program*
- ☐ Advanced Student Behavioral Threat Assessment (K-12)
- ☐ Campus-Community Emergency Response Team (CERT) (K-12 & HE)
- ☐ Creating an Action Plan: Forming a Critical Incident Response Team (AA-427)
- ☐ Incident Command System for Single Resources & Initial Action Incidents (K-12) (IS-200.b)
- ☐ Incident Response to Terrorist Bombings (AWR-130)
- ☐ Introduction to Incident Command System for Schools (K-12) (IS-100SCa)
- ☐ Introduction to the National Incident Management System (K-12 & HE) (IS-700.a)
- ☐ Introduction to the National Response Framework (K-12 & HE) (IS-800.b)
- ☐ Multi-Hazard Emergency Planning for Illinois Schools Train-The-Trainer [2 day] (AA-428)
- ☐ Multi-Hazard Emergency Planning for Schools (G-364)
- ☐ Student Behavioral Threat Assessment (AA-990)
- ☐ Training and Exercising the School Emergency Operations Plan
- ☐ Training and Exercising the School Emergency Operations Plan (K-12)
- ☐ Understanding and Planning for School Bomb Incidents (AWR-132)
- ☐ Updating the School Emergency Operations Plan
- ☐ Other (please list):

26. Check any of the following emergency preparedness training you may have taken or received from your district, school, or other agencies and sources.

If you have not received any of the listed training, please check the first box.

- ☐ I have not received any emergency preparedness training
- ☐ Active Shooter
- ☐ Cardiopulmonary Resuscitation (CPR)
- ☐ Community Emergency Response Team (CERT), Teen CERT, or Campus CERT
- ☐ Other (please list)
- ☐ First Aid
- ☐ Workplace Violence
- ☐ Courses from the Federal Emergency Management Agency (FEMA) Independent Study Program (FEMA Emergency Management Institute)

27. Are you interested in participating in emergency preparedness training designed specifically for your Illinois school environment?

NOTE: This training would include classroom and hands-on exercises and drills, and not just a presentation/lecture.

- ○ Yes
- ○ No
- ○ I am not sure

28. Check any of the following Disaster Preparedness training you might like to receive if offered.

Disaster Preparedness: *Provides those who work at schools an introduction to disaster preparedness concepts, practices and activities. This is to develop competencies in identifying potential problems and hazards (Natural, Technological, and Intentional) that may be experienced in or around the school environment. This includes measures that may be taken to mitigate certain emergency conditions and situations. This training would include classroom and hands-on exercises and drills, and not just a presentation/lecture.*

If you are not interested in any of the listed training, please check the first box.

- ☐ I am not interested in any of the training listed below
- ☐ **Roles and Responsibilities for Community Preparedness** – Identifying the roles and responsibilities of community preparedness for the government (Federal, State and Local), community leaders, private sector and non-governmental organizations, individuals, households, and employees of educational institutions.
- ☐ **Hazards and their Potential Impact** – Identifying the disasters and hazards most likely to affect your school and community and the potential impact of disasters and hazards on people, health, and infrastructure.
- ☐ **Personal and Organizational Preparedness** – Identifying the preparedness actions for individuals and organizations.

29. Check any of the following Awareness training you might like to receive if offered.

Awareness in the Educational Workplace*: Provides those who work at schools an introduction to the concepts and practices of the various types of awareness. This training would include classroom and hands-on exercises and drills, and not just a presentation/lecture.*

If you are not interested in any of the listed training, please check the first box.

- ☐ I am not interested in any of the training listed below
- ☐ **Situational Awareness** – Being aware of what is happening around them and understanding how information, events, and their own actions will impact their goals and objectives.
- ☐ **Security Awareness**– How they are the first line of defense against security threats for their schools or organizations.
- ☐ **Surveillance Awareness** – Actions they can take to detect and report suspicious activities associated with adversarial surveillance (the unauthorized gathering of critical information of people and places).

30. Check any of the following Workplace Violence and Active Shooter training you might like to receive if offered.

Workplace Violence and Active Shooter*: Enables those who work at schools to define, identify and acknowledge workplace violence, learn preventative measures and actions that can be taken to mitigate these situations and the actions that involve an active shooter. This training would include classroom and hands-on exercises and drills, and not just a presentation/lecture.*

If you are not interested in any of the listed training, please check the first box.

- ☐ I am not interested in any of the training listed below
- ☐ **Workplace Violence** – Identifying those who commit this violence and the three warning signs. Actions to take in response and ways to prevent workplace violence.
- ☐ **Active Shooter** – Actions to take to prepare and prevent prior to an event. Actions to take when confronted by an active shooter and the responding law enforcement, and managing the consequences of an incident.

31. Check any of the following emergency preparedness training you might like to receive if offered.

If you are not interested in any of the listed training, please check the first box.

- ☐ I am not interested in any of the training listed below
- ☐ **Community Emergency Response Team (CERT)**: This program educates community volunteers about disaster preparedness for the hazards that may impact their area and trains them in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations.
- ☐ Other (please list)

Appendix B: E-Mail Invitation and Consent Form

Dear [redacted] Principals,

I am inviting you and personnel within your particular school to participate in a research study titled *Emergency Preparedness Training Perceptions of K-12 School Personnel: A Cross-Sectional Study of Two Illinois School Districts*. This study is being conducted by Robert J. Leahy, Jr., a doctoral candidate of the American College of Education and alumni of [redacted].

It is desired to have at least six participants from each school in [redacted]. I would like to have at least two personnel each representing the administration, the staff, and the faculty (any position within those areas). This study/survey is not intended for students.

The purpose of this research study is to examine the level of emergency preparedness training in the school environment, the perceptions of school personnel regarding this training, and the level of interest in receiving additional or enhanced emergency preparedness training specifically designed for the Illinois school environment. Those who agree to take part in this study are asked to complete an online survey. This survey will ask demographic and background questions, opinions about emergency preparedness, and questions regarding emergency preparedness training received or desired. The survey will take approximately 20 minutes to complete.

Respondents may not directly benefit from this research. It is my hope that participation in the study may give insight of the emergency preparedness of our schools and school personnel to keep everyone safe at our education institutions.

I believe there are no known risks associated with this research study. As with any online related activity, the risk of a breach of confidentiality is always possible. To the best of my ability, identities will be anonymous. I minimize any risks by not recording email addresses or asking an individual's identity.

Participation in this study is completely voluntary and the respondent can withdraw at any time. Respondents are free to skip any question that they choose. However I ask that the "I prefer not to answer" option is selected for any question the respondent does not wish to provide a response.

Clicking the link below sends the respondent to the online *School Personnel Emergency Preparedness Survey*. The first page is the *Welcome and Consent Statement*. Answering *Yes* to question one indicates the respondent's consent and takes them into the survey.

NOTE: This survey will only be open until April 30, 2019.

https://www.surveymonkey.com/r/speps

Thank you for your consideration,

Robert J. Leahy, Jr., Ed.S.
Doctoral Candidate, American College of Education.

Dear [redacted] Principals,

I am inviting you and personnel within your particular school to participate in a research study titled *Emergency Preparedness Training Perceptions of K-12 School Personnel: A Cross-Sectional Study of Two Illinois School Districts*. This study is being conducted by Robert J. Leahy, Jr., a doctoral candidate of the American College of Education and alumni of [redacted].

It is desired to have at least six participants from each high school in [redacted]. I would like to have at least two personnel each representing the administration, the staff, and the faculty (any position within those areas). This study/survey is not intended for students.

The purpose of this research study is to examine the level of emergency preparedness training in the school environment, the perceptions of school personnel regarding this training, and the level of interest in receiving additional or enhanced emergency preparedness training specifically designed for the Illinois school environment. Those who agree to take part in this study are asked to complete an online survey. This survey will ask demographic and background questions, opinions about emergency preparedness, and questions regarding emergency preparedness training received or desired. The survey will take approximately 20 minutes to complete.

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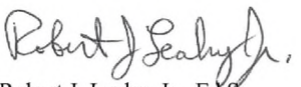
Clicking the link below sends the respondent to the online *School Personnel Emergency Preparedness Survey*. The first page is the *Welcome and Consent Statement*. Answering *Yes* to question one indicates the respondent's consent and takes them into the survey.

NOTE: This survey will only be open until April 30, 2019.

https://www.surveymonkey.com/r/speps

Thank you for your consideration,



Robert J. Leahy, Jr., Ed.S.
Doctoral Candidate, American College of Education.

Appendix C: E-Mail Invitation and Consent Form Reminder

Dr. [redacted],

I respectfully ask that you forward this email on to the Principals within your school district.

[redacted] Principals,

I would like to thank those who have already participated in the *School Personnel Emergency Preparedness Survey*. The survey is found at https://www.surveymonkey.com/r/speps and will be available throughout the month of April. My original letter is attached.

I realize that the schools are just coming off of Spring break, and I wanted to send a reminder in order to recruit input from each school. What I am looking for is participation by at least six personnel from each school representing different functional areas:

- Two or more personnel from the Administration (Superintendent, Principal, Assistant Principal, Dean, Director, etc.)
- Two or more personnel from the Staff (Clerical Assistant, Counselor, Custodian, Librarian, Resource Officer, School Nurse, Secretary, Student Advisor, etc.)
- Two or more personnel from the Faculty (Teacher, Teacher's Aid, Coach, etc.)

Similar studies have been conducted around the country, but generally seem to focus on one certain position within schools (e.g., Principals only, Teachers only, etc.). I believe all school personnel are involved with, and responsible for, safety, security and emergency preparedness. I believe all their voices should be heard.

Thank you for your assistance and support in my doctoral study.

Robert J. Leahy, Jr.

Doctoral Candidate, American College of Education (2019)

[redacted],

I respectfully ask that you forward this email on to the Principals within your school district.

[redacted] Principals,

I would like to thank those who have already participated in the *School Personnel Emergency Preparedness Survey*. The survey is found at https://www.surveymonkey.com/r/speps and will be available throughout the month of April. My original letter is attached.

I realize that the schools are just coming off of Spring break, and I wanted to send a reminder in order to recruit input from each school. What I am looking for is participation by at least six personnel from each school representing different functional areas:

- Two or more personnel from the Administration (Superintendent, Principal, Assistant Principal, Dean, Director, etc.)
- Two or more personnel from the Staff (Clerical Assistant, Counselor, Custodian, Librarian, Resource Officer, School Nurse, Secretary, Student Advisor, etc.)
- Two or more personnel from the Faculty (Teacher, Teacher's Aid, Coach, etc.)

Similar studies have been conducted around the country, but generally seem to focus on one certain position within schools (e.g., Principals-only, Teachers-only, etc.). I believe all school personnel are involved with, and are responsible for, safety, security and emergency preparedness. I believe all their voices should be heard.

Thank you for your assistance and support in my doctoral study.

Robert J. Leahy, Jr.

Doctoral Candidate, American College of Education (2019)

Appendix D: Codebook for School Personnel Emergency Preparedness Survey

Question	Variable	Description and Value
1	Consent	Consent to take survey; 1 = Yes, 2 = No
2	Age	Age range of school personnel; 1 = 18 to 21, 2 = 22 to 34, 3 = 35 to 44, 4 = 45 to 54, 5 = 55 or older, 6 = I prefer not to answer
3	Gender	Gender of school personnel; 1 = Female, 2 = Male, 3 = Other, 4 = I prefer not to answer
4	Race/Ethnicity	Race or ethnicity of school personnel; 1 = Asian, 2 = Native Hawaiian or Pacific Islander, 3 = American Indian/Alaskan Native, 4 = White/Caucasian, 5 = Black/African American, 6 = From multiple races, 7 = Hispanic/Latino, 8 = I prefer not to answer, 9 = Other
5	Education	Highest education level of school personnel; 1 = High School or Equivalent, 2 = Some college but no degree, 3 = Associate's degree, 4 = Bachelor's degree, 5 = Master's degree, 6 = Doctorate, 7 = Other, 8 = I prefer not to answer
6	Primary Position	Primary job within the district or school; 1 = Administrator, 2 = Faculty, 3 = Staff, 4 = I prefer not to answer
7	Primary Location	Primary location during the school day; 1 = District Office, 2 = Elementary School, 3 = Junior High School, 4 = High School, 5 = I prefer not to answer
8	Assignment Length	Length of time at current assignment; 1 = Less than 2 years, 2 = 2 to 5 years, 3 = 6 to 9 years, 4 = 10+ years, 5 = I prefer not to answer
9	Overall Length	Length of time at any school environment and assignment; 1 = Less than 2 years, 2 = 2 to 5 years, 3 = 6 to 9 years, 4 = 10+ years, 5 = I prefer not to answer
10	Preparedness Importance	In your opinion, how important do you feel it is to prepare for a major school crisis or disaster; 1 = Not important, 2 = Slightly important, 3 = Moderately important, 4 = Important, 5 = Very important
11	Training Importance	In your opinion, how important is it to receive emergency preparedness training; 1 = Not important, 2 = Slightly important, 3 = Moderately important, 4 = Important, 5 = Very important
12	Preparedness of Location	In your opinion, how prepared is your current assignment location with respect to the three types of disasters; **Natural**: 1 = Not at all prepared, 2 = Somewhat prepared, 3 = Prepared, 4 = Quite a bit prepared, 5 = Extremely well prepared **Technological**: 1 = Not at all prepared, 2 = Somewhat prepared, 3 = Prepared, 4 = Quite a bit prepared, 5 = Extremely well prepared **Intentional**: 1 = Not at all prepared, 2 = Somewhat prepared, 3 = Prepared, 4 = Quite a bit prepared, 5 = Extremely well prepared

Question	Variable	Description and Value
13	Preparedness of Individual	In your opinion, how prepared are you in your current assignment location with respect to the three types of disasters; **Natural**: 1 = Not at all prepared, 2 = Somewhat prepared, 3 = Prepared, 4 = Quite a bit prepared, 5 = Extremely well prepared **Technological**: 1 = Not at all prepared, 2 = Somewhat prepared, 3 = Prepared, 4 = Quite a bit prepared, 5 = Extremely well prepared **Intentional**: 1 = Not at all prepared, 2 = Somewhat prepared, 3 = Prepared, 4 = Quite a bit prepared, 5 = Extremely well prepared
14	Most Likely	Category of disaster most likely to occur at/near assignment location; 1 = Natural disaster, 2 = Technological disaster, 3 = Intentional disaster
15	Least Likely	Category of disaster least likely to occur at/near assignment location; 1 = Natural disaster, 2 = Technological disaster, 3 = Intentional disaster
16	Best Prepared	Category of disaster assignment location is best prepared for; 1 = Natural disaster, 2 = Technological disaster, 3 = Intentional disaster
17	Least Prepared	Category of disaster assignment location is least prepared for; 1 = Natural disaster, 2 = Technological disaster, 3 = Intentional disaster
18	Personal Copy	Do you have a personal copy of the district or school Emergency Operations and Crisis Response Plan; 1 = Yes, 2 = No
19	Familiarity	How familiar are you with the contents of the district/school Emergency Operations and Crisis Response Plan; 1 = Not at all familiar, 2 = Somewhat familiar, 3 = Familiar, 4 = Very familiar, 5 = Extremely familiar
20	Emergency Assignment	Do you have a have a specific assigned duty/role in event of an emergency; 1 = Yes, 2 = No, 3 = I do not know
21	District Training	Does your district provide or offers emergency preparedness training; 1 = Yes, 2 = No, 3 = I do not know
22	Assignment Training	Does your current assignment location provide or offer emergency preparedness training for its specific location and environment; 1 = Yes, 2 = No, 3 = I do not know
23	Leadership Commitment	In your opinion, how committed is your district and school leadership to improving emergency preparedness in your school; **District**: 1 = Not at all committed, 2 = Somewhat committed, 3 = Committed, 4 = Quite a bit committed, 5 = Extremely committed **School**: 1 = Not at all committed, 2 = Somewhat committed, 3 = Committed, 4 = Quite a bit committed, 5 = Extremely committed
24	Drills	Indicates which emergency preparedness drills the school member participated in over the past two years; 1 = None, 2 = Law Enforcement Drills, 3 = Bus Drills, 4 = Severe Weather Drills, 5 = Evacuation Drills, 6 = Other

Question	Variable	Description and Value
25	SCSTP Training	Indicates training individual received specifically from the Illinois School and Campus Security Training Program: 1 = None, 2 = Introduction to the National Response Framework (K-12 & HE) (IS-800 b), 3 = Advanced Student Behavioral Threat Assessment (K-12), 4 = Multi-Hazard Emergency Planning for Illinois Schools Train-The-Trainer [2 day] (AA-428), 5 = Campus-Community Emergency Response Team (CERT) (K-12 & HE), 6 = Multi-Hazard Emergency Planning for Schools (G-364), 7 = Creating an Action Plan: Forming a Critical Incident Response Team (AA-427), 8 = Student Behavioral Threat Assessment (AA-990) 9 = Incident Command System for Single Resources & Initial Action Incidents (K-12) (IS-200.b), 10 = Training and Exercising the School Emergency Operations Plan, 11 = Incident Response to Terrorist Bombings (AWR-130), 12 = Training and Exercising the School Emergency Operations Plan (K-12), 13 = Introduction to Incident Command System for Schools (K-12) (IS-100SCa), 14 = Understanding and Planning for School Bomb Incidents (AWR-132), 15 = Introduction to the National Incident Management System (K-12 & HE) (IS-700.a), 16 = Updating the School Emergency Operations Plan, 17 = Other
26	Other Training	Indicates any emergency preparedness training individual received from district, school, or any other agency; 1 = None, 2 = First Aid, 3 = Active Shooter, 4 = Workplace Violence, 5 = Cardiopulmonary Resuscitation (CPR), 6 = Courses from the Federal Emergency Management Agency (FEMA) Independent Study Program (FEMA Emergency Management Institute), 7 = Community Emergency Response Team (CERT), Teen CERT, or Campus CERT, 8 = Other
27	Interest	I am interested in participating in emergency preparedness training designed specifically for my Illinois school environment; 1 = Yes, 2 = No, 3 = I am not sure
28	Disaster Preparedness	Indicates which disaster preparedness training the individual would be interested in if offered; 1 = None, 2 = Hazards and their Potential Impact, 3 = Roles and Responsibilities for Community Preparedness, 4 = Personal and Organizational Preparedness

Question	Variable	Description and Value
29	Awareness	Indicates which awareness training the individual would be interested in if offered; 1 = None, 2 = Security Awareness, 3 = Situational Awareness, 4 = Surveillance Awareness
30	Workplace Violence	Indicates which workplace violence or active shooter training the individual would be interested in if offered; 1 = None, 2 = Active Shooter 3 = Workplace Violence,
31	CERT	Indicates which of the following emergency preparedness training the individual would be interested in if offered; 1 = None, 2 = Community Emergency Response Team (CERT), 3 = Other