

School Safety Preparedness: A survey study of K-12 principals' perceptions relative to safe and secure Kansas public schools

by

Renee L. Scott

B.A., Benedictine College, 1992  
M.Ed., West Texas A&M University, 2002

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF EDUCATION

Department of Educational Leadership  
College of Education

KANSAS STATE UNIVERSITY  
Manhattan, Kansas

2020

## **Abstract**

The purpose of this quantitative research study was to explore Kansas K-12 principals perceived preparedness of school safety. To achieve this objective, a specific research question and three research hypotheses were formulated around perceived preparedness for Kansas school principals who are responsible for implementing school safety practices in Kansas public schools. A survey aligned to the Kansas Safe and Secure School Standards was utilized to assess principal perceptions. According to the findings, there were not statistically significant differences in perceptions between elementary and secondary principals or urban and rural principals pertaining to perceived safety preparedness. The findings did reveal an increased perceived preparedness when safety drills were conducted. The findings of this study provide additional insight into the level of implementation and understanding of the standards by Kansas public school principals. As practice and policy continue to evolve regarding safety drills, it is critical that a system of accountability is utilized to ensure appropriate laws and practices are in place. The findings of this study may provide information for Kansas school districts, the Kansas State Department of Education, and Kansas lawmakers as they work to improve prevention of school violence and set governing policy in schools.

School Safety Preparedness: A survey study of principals' perceptions relative to safe and secure  
Kansas public schools

by

Renee L. Scott

B.A., Benedictine College, 1992  
M.Ed., West Texas A&M University, 2002

A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF EDUCATION

Department of Educational Leadership  
College of Education

KANSAS STATE UNIVERSITY  
Manhattan, Kansas

2020

Approved by:  
Co-Major Professor  
Dr. Donna Augustine-Shaw

Approved by:  
Co-Major Professor  
Dr. Haijun Kang

# Copyright

© Renee L. Scott 2020.

## **Abstract**

The purpose of this quantitative research study was to explore Kansas K-12 principals perceived preparedness of school safety. To achieve this objective, a specific research question and three research hypotheses were formulated around perceived preparedness for Kansas school principals who are responsible for implementing school safety practices in Kansas public schools. A survey aligned to the Kansas Safe and Secure School Standards was utilized to assess principal perceptions. According to the findings, there were not statistically significant differences in perceptions between elementary and secondary principals or urban and rural principals pertaining to perceived safety preparedness. The findings did reveal an increased perceived preparedness safety drills were conducted. The findings of this study provide additional insight into the level of implementation and understanding of the standards by Kansas public school principals. As practice and policy continue to evolve regarding safety drills, it is critical that a system of accountability is utilized to ensure appropriate laws and practices are in place. The findings of this study may provide information for Kansas school districts, the Kansas State Department of Education, and Kansas lawmakers as they work to improve prevention of school violence and set governing policy in schools.

## Table of Contents

List of Figures .....	ix
List of Tables .....	x
Acknowledgements.....	xi
Dedication.....	xii
Preface.....	xiii
Chapter 1 - Introduction.....	1
Background of the Problem .....	1
Statement of the Problem.....	8
Purpose of the Study .....	10
Significance of the Study .....	11
Research Design.....	12
Research Questions.....	14
Assumptions and Limitations .....	14
Definition of Terms.....	14
Chapter 2 - Review of the Literature .....	16
Introduction.....	16
Theoretical Framework.....	16
Cognitive-Behavioral Theory .....	18
History of National Disasters that has Shaped Policy and Procedures Regarding School Safety .....	20
Fires.....	20
Tornadoes.....	22
History of School Violence and Shootings.....	24
Columbine shooting spurs response changes from law enforcement .....	39
Urban and Rural School Violence Incidents.....	44
Elementary and Secondary School Violence Incidents .....	45
National and State Policy Impacting School Safety .....	47
Historical National Policy on School Safety .....	47

Kansas Policy .....	53
Kansas School Safety Standards .....	55
Literature Review Summary .....	58
Chapter 3 - Methodology .....	59
Overview of the Study .....	59
Research Question and Hypotheses .....	60
Hypothesis.....	61
Research Design.....	61
Population and Sample .....	66
Data Collection .....	67
Data Analysis .....	67
Summary .....	68
Chapter 4 - Results.....	71
Demographic Analysis.....	71
ANOVA Analysis .....	74
Summary.....	83
Chapter 5 - Summary .....	84
Purpose of the Study .....	84
Overview of the Methodology .....	84
Theoretical Relationship to the Findings .....	85
Summary of Findings.....	87
Research Findings.....	87
Findings Related to the Standards .....	94
Standard 1 .....	94
Standard 2 .....	96
Standard 3 .....	96
Standard 4 .....	98
Standard 5 .....	99
Standard 6 .....	100
Standard 7 .....	101
Standard 8 .....	102
Implications for Research .....	103
Implications for the Standards .....	105
Conclusion .....	106

References.....	108
Appendix A - Kansas Safe and Secure School Standards .....	123
Appendix B - Research Standards and Survey Crosswalk .....	127
Appendix C - Author Permission of Survey .....	130
Appendix D - Survey .....	131
Appendix E - Survey Introduction Letter .....	152
Appendix F - Complete Survey Table Showing Statistical Differences between Elementary and Secondary Principals .....	153
Appendix G - Complete Survey Table Showing Statistical Differences Between Urban and Rural Principals .....	157
Appendix H - Complete Survey Table Showing Statistical Difference Between Number of Drills .....	161



## **List of Figures**

Figure 2.1. Maslow’s Hierarchy of Needs (Burton, 2012). .....	18
Figure 2.2. Juvenile Violent Crime Time of Day (U.S. Department of Justice, 2018). .....	46

## List of Tables

Table 3.1. Hypothesis .....	68
Table 4.1. Elementary vs. Secondary Population Breakdown.....	72
Table 4.2. Urban vs. Rural Population Breakdown .....	73
Table 4.3. Breakdown Representing Number of Drills Conducted in the Last Six Months.....	73
Table 4.4. Survey Questions Showing Significant Differences Between Elementary and Secondary Principals.....	76
Table 4.5. Survey Questions Showing Statistical Differences Between Rural and Urban Principals.....	79
Table 4.6. Survey Questions Representing No Statistical Differences in Number of Drills .....	82

## Acknowledgements

Over the last several years writing this dissertation, I have learned the true meaning of perseverance and productive struggle. Although I accomplished the goal, there are many who provided support and encouragement throughout the process. I would first like to thank my original advisor, Dr. David Thompson, for his patience, feedback, and willingness to put up with me. My co-major professor in this project, Dr. Donna Augustine-Shaw, for taking regular time out of your busy schedule to meet with me, guide me, and shape my processes. And my co-major professor, Dr. Haijun Kang, who provided feedback mid-stride in my journey. All of you gave up time and provided knowledge during the stressful times of the process, and I am grateful beyond the words on this page. Dr. Robert Hachiya rounds out my committee, and as having him as a professor during the initial phase of my cohort I appreciate his expertise as well. Thanks again to my committee's work.

Next, all my USD 457 “work family.” Dr. Steve Karlin, thank you for understanding my competitive spirit and refusing to allow me to slack in the process. At the same time, your faith in my leadership will forever impact me, both personally and professionally. The cohort group that traveled, in both miles and learning processes, especially Heath Hogan and Shiloh Vincent, will forever be a foundational part of my journey. I also appreciate my new USD 409 “work family,” who have unconditionally accepted me in the final leg of my dissertation work.

Last, but certainly not least, my friends and family are my inspiration for all I accomplish. They have supported me, put up with me, and sometimes took a back seat to their own needs so I could research and write. My person (Todd Nugent), my children (Sierra, Jalen, Sidney), my grandchildren (Carsyn, Kase), my parents, aunts and uncles, and friends (especially Peepa's) near and far—I am ever blessed by all of you and cherish you beyond words.

## **Dedication**

I dedicate this work to members of the Southwest Kansas Cohort, who began this journey together. Kansas State University took a leap of faith to include the far reaches of Kansas into their program, and we must all strive to finish what we started.

Sierra, Jalen, and Sidney—my “babies,”—always remember that when you put your mind to something, you will accomplish goals and dreams. I believe in you.

## Preface

When I was an associate principal in 2012, I was tasked with overseeing all high school safety drills for over 2,400 students and staff members. Our school was brand new, so finding routes for fire drills, determining safe harbor for tornado drills, and organizing school violence prevention drills became an immense responsibility. About that same time, I became trained in a strategy called ALICE : Alert, Lockdown, Inform, Counter, and Evacuate (Blad, 2018). This is essentially a run, hide, fight model of school safety in which all persons are empowered to make the best decisions in times of crisis. I began taking an interest in what other schools within our district were doing to address school safety and this led to an interest in what other districts in the state were doing as well. Hence, the basis for this research study was born.

The last year and a half of this dissertation I have served as the superintendent of a 4A school district in the Northeast corner of the state. Once again, managing school safety is a responsibility not taken lightly. In fact, navigating a district through a pandemic with the background of school safety, particularly in the areas of communication and collaboration with outside agencies and stakeholders, has been a blessing in navigating a school community through these unprecedented times.

As reports of school shootings continue, even as I work to defend this dissertation, my hope is that this study impacts schools in realizing the importance of developing, practicing, implementing, and refining a solid plan. These components, in conjunction with sound legislation and support of all stakeholders, can only broaden the scope of safe and secure schools.

# **Chapter 1 - Introduction**

## **Background of the Problem**

When natural disasters occur and have a negative impact on public schools, policies and practices are imposed and immediate improvements occur (Braunack-Mayer et al., 2013). The 1999 school shooting at Columbine High School in Littleton, Colorado propelled school violence to the forefront of the media, society, students, parents, teachers, administrators, and even lawmakers. As a result of those shootings, studies were commissioned, and policy changes were proposed. Sadly, those policy changes were isolated to very few states, with arguably little or no improvement in terms of casualties and victims of school violence.

Notwithstanding, the safety and welfare of students has been a priority of school leaders for decades (Armenta & Stader, 2011). Yet, school leaders, especially principals, have lacked comprehensive guidance around school preparedness and school safety. For example, in response to numerous high-profile school shootings, many states are enacting or considering laws that require more and new types of school safety drills (Shah, 2013). Despite national movement, until 2018, Kansas schools had no requirements in place specific to type or amount of drills except for fire and tornado drills. Then, a few short weeks before the start of the 2018 school year, the Kansas Legislature inserted language to require a total of 16 emergency preparedness drills, including four fire and three tornado drills. Kansas also requires that local boards of education make available to the public the district's school safety and security policies:

Each Board of education shall make available to pupils and their parents, to school employees and, upon request, to others, district policies and reports concerning school safety and security, except that the provisions of this subsection shall not apply to reports

made by a superintendent of schools and schools' employees...  
(*Kansas School Safety and Security*, 2017).

The 1999 Columbine High School shootings significantly changed how many schools across the nation prepared for crisis events (Gainey, 2009). At Columbine, two senior students killed 12 students, a teacher, and then themselves (Schildkraut & Hernandez, 2014). Additional tragedies in our schools, such as the Sandy Hook shooting in Newton, Connecticut and the Marysville-Pilchuck shooting near Seattle, Washington, continue to spur debate about how best to handle school safety training and implementation. And even more recently, the tragedy in the Parkland, Florida schools and the shooting at Santa Fe High School in Texas increased national and state politicians weighing in on the necessity for school safety measures (Estepa & Korte, 2018).

Two additional school shooting incidents, which garnered not only media attention but the attention of lawmakers across the United States occurred first at an elementary school and then at a high school. On December 14, 2012, Adam Lanza entered Sandy Hook Elementary School in Newtown, Connecticut, and began shooting. He shot and killed 20 first-grade students, six educators, then took his own life (Schildkraut & Hernandez, 2014). Because this tragedy included younger school-aged children, emotions ensued and discussions about school safety played out at local, state, and national levels.

In the state of Washington on October 24, 2014, the gunman who walked into the Marysville-Pilchuck High School and shot five students before taking his own life defied the “typical profile” of previous school shootings, such as Columbine and Sandy Hook (Blad, 2014, p. 6). Jaylen Fryberg, a Native American freshman student, was actively involved in school athletics. Unlike the Columbine and Sandy Hook shooters, this student was not profiled as a “loner” who played video games and didn’t have friends (Blad, 2014, p. 6). These tragic school

shootings continue to bring the school safety debate to the forefront (Elliott, 2015). Yet, with the aforementioned scenarios, which have spurred great debate, evaluation processes have been lacking as to whether or not reactive approaches have increased the perceptions of school preparedness and safety in Kansas public schools.

School safety concerns are not just limited to urban schools. As early as 1998, *Rural Special Education Quarterly* printed an article regarding rural schools not feeling as safe or prepared for violence in schools. The article stated, “Clearly, there is a significant concern in American schools about violence and safety” (Thurston & Berkeley, 2010, p. 26). This article was originally published one year prior to the shootings at Columbine High School, where the role of the school leader in terms of school safety intensified (Armenta & Stader, 2011). This research is especially relevant to Kansas schools in that Kansas has a wide range of rural and urban school settings and no school, as evidenced in the literature review, is immune to school crisis situations. According to the National Center for Education Statistics, approximately 45 percent of the Kansas K-12 students attended urban or city schools, while 55 percent attended rural schools (National Center for Educational Statistics, 2013).

In addition to safety concerns between urban and rural settings, elementary school settings are not immune to school violence and school shootings. According to the Fast Facts Tool from the National Center for Educational Statistics (2017), in 2015-16 eighty-eight percent of middle and high schools recorded violent incidents regarding violent crime, serious violent crime, and theft as did 57% of primary schools. Although the rate is higher at the secondary level, the primary school percentage is alarming.

One common way to prepare for any potential crisis is to practice. In Kansas, the purpose of fire and evacuation drills is “to practice the safe and swift removal of all students and staff”



(*Kansas Fire Prevention Code*, 2001, p. 5). Although each district is given latitude in determining the specific time of day and days of the month to have the drill as well as other general decisions regarding fire and tornado drills, there are some very specific stipulations set forth by the Kansas code. Some of these stipulations include having two separate evacuation routes in case one route is obstructed and requiring occasional practice of both options. The fire code recommends drills are practiced at different times of the day, such as lunch, passing periods and assemblies (*Kansas Fire Prevention Code*, 2001). A minimum of one fire drill per month used to be required, but that requirement was reduced to a total of four fire drills per year after the 2018 legislative session, and these drills must be recorded and placed in an area where the fire marshal can "verify completeness and correctness" (*Kansas Fire Prevention Code*, 2018, p. 1). In addition, current legislation just finished revising the 2018 legislation; hence, the need for this study is timely in that decisions continue to be made without diving into the effectiveness of varied legislative actions.

As mentioned above, school shootings have spurred reactionary bills and requirements to tighten school safety measures. On some level, the same is true for fire codes in schools. Historical school fires are the reason school fire codes and mandatory fire drills exist in schools across the nation and in the state of Kansas today. In 1908, in Collinwood, Ohio, a Lakeview Elementary School fire claimed 175 lives (Grant, 2008). "As a result of this fire taking place in a school full of children, Americans began to examine, study, and institute fire protection and life safety standards for school structures" (Mitchell et al., 2008, p. 3). A second major school fire in Chicago also claimed the lives of over 92 children and three nuns (Groves, 2008). This fire at Our Lady of the Angels School in Chicago on December 1, 1958, prompted a series of major changes and enhancements to the fire safety codes and regulations governing U.S. schools and

other public buildings (Groves, 2008). In fact, after the fire it only took nine days for representatives from various stakeholders—insurance, construction, fire safety experts, architects and engineering—to convene and determine recommendations for improving fire safety protocols in schools (Groves, 2008).

Some of the primary recommendations of this committee proposed monthly fire drills at schools and fire safety professional development for school employees (Groves, 2008). Reactions of these recommendations spread as a “Civil Priority” across the United States (Groves, 2008, p. 3). Hence, the fire at Our Lady of the Angels School is widely credited with bringing overdue attention to fire safety in schools. In fact, since these fire safety laws have been enacted, there has not been a school fire resulting in ten or more deaths (Carella, 2008).

In addition to mandated fire drills once a month, Kansas also requires a minimum of three tornado drills per year in schools—one in the fall and two every spring (*Kansas Fire Prevention Code*, 2001). School shootings have provided the impetus to examine school safety drills and deadly fires have promoted examination of fire codes and fire safety drills. Likewise, natural disasters in our state and surrounding states have also spurred examination of tornado safety and preparedness in schools. On May 3, 1999, a series of strong storms moved through Oklahoma and Kansas, producing tornadoes that tore through areas of both states (Brooks & Doswell, 2002). Two schools in Wichita, Kansas were severely damaged after school hours. Had the storms hit during the day with students present, injuries or deaths could have occurred (Brooks & Doswell, 2002). As a result of this event, the counties that incurred damages took a proactive approach and received a Presidential disaster declaration and financial assistance from the Federal Emergency Management Agency (Federal Emergency Management Agency, 2002). Different entities determined the best use of funds would be to construct tornado shelters in

Wichita area schools, which set an example for other schools across the state (Federal Emergency Management Agency, 2002).

Even more recently, a tornado in Moore, Oklahoma on May 20, 2013 claimed the lives of seven students when the roof and hallways collapsed where students were huddled trying to stay safe (Thompson, 2013). Like the Our Lady of the Angels school fire, the Moore tornado prompted changes to codes. The state has started a program called Safe Schools 101, which trains volunteer architects, engineers, and emergency officials how to evaluate the safety of school structures (Oklahoma Emergency Management, 2013). Additionally, schools are re-evaluating their emergency plans to minimize the risk of injury and death during tornadoes (Thompson, 2013).

However, not all schools in Kansas have shelters specifically for tornadoes. As a result, the best course of action remains practicing and implementing tornado safety plans. According to the Storm Prediction Center in Oklahoma, the most important part of tornado safety in schools is to “develop a good tornado safety plan tailored to your building design and ability to move people” (Edwards, 2018, p. 2). Additionally, because storms have the potential to turn severe quickly, practicing drills with urgency and seriousness is critical. A carefully developed tornado drill should be run multiple times a year to keep students and staff in practice as well as work out inconsistencies before a real event (Edwards, 2018).

Similar to instances relating to school fires and natural disasters, the statistical likelihood of a school shooting is rare; only 1% of all youth homicides are school related and the number of incidences dropped between 1992 and 2003 (Dillon, 2007). However, the Centers for Disease Control and Prevention (CDC) have issued several reports since 1997 stating that the “United States has the highest rates of childhood homicide, suicide, and firearms-related deaths of any of

the world's twenty-six wealthiest nations" (Grinshteyn & Hemenway, 2016, p. 266). Although the CDC reported deaths due to school violence leveled off and stabilized between 1992 and 2006, the CDC also showed that school deaths involving more than one victim increased during this same time frame (Center for Disease Control, 2006).

The National Center for Education Statistics (NCES) reports even more recent data. The School-Associated Violent Deaths (SAVD) Surveillance System found that from July 1, 2012–June 30, 2013, there were a total of 53 school-associated violent deaths in elementary and secondary schools in the United States, 41 of which were homicides (National Center for Education Statistics, 2017). In the Youth Risk Behavior Survey of 2013, secondary students in grades 9–12 were asked if they had been threatened or injured with a weapon on school property in the last 12 months. About seven percent of students reported they were threatened or injured with a weapon on school property (Center for Disease Control, 2006). This percentage, although slightly lower, was not measurably different from the percentages reported in 1993 and 2011 (Gray & Lewis, 2015). Although NCES reports the percentage of youth homicides occurring at school remained less than 3 percent of the total number of youth homicides, school safety is still an important topic to explore. Our nation's schools should be free of crime and violence (Robers et al., 2014). "Any instance of crime and violence in schools not only affect the individuals involved, but also may disrupt the educational process and affect bystanders, the school itself, and the surrounding community" (Robers et al., 2014, p. 11).

According to an ABC News Report titled "School Shootings Since Columbine: By the Numbers," since Columbine there have been 270 school shootings (Pearle, 2016). Of those, 141 people have been killed in a mass murder or an attempt at mass murder (Pearle, 2016). These shootings, combined with Columbine and shootings prior to Columbine, have Americans

believing that schools have the potential to be violent places, and fear surrounding school shootings have reached critical levels (Muschert, 2007). Yet, unlike required fire and tornado drills, school shooting drills have only recently become encouraged through the emergency preparedness drills requirement in recent legislation.

Although the premise of this study revolves around the issue of school safety in regards to fires, tornadoes, and school violence, it should be noted that this study was nearing completion amidst the COVID-19 pandemic, which is in and of itself a crisis situation. Although this situation specifically is not a part of this current study, this study does emphasize the necessity for communication with multiple stakeholders during a time of crisis and will be explored in the implications section of Chapter 5.

### **Statement of the Problem**

Next to family, schools are the primary agents where children and adolescents learn society's norms, values, and cultural expectations (Muschert, 2007). Because schools are the primary attendance centers for school-aged children, the safety and security of children at school is a priority for educators. When children practice fire drills one time a month as previously required by state law and do activities during fire prevention week, the purpose is not only to prepare students for how to react and respond to fires at school but also to apply and transfer those skills to fire emergencies outside of school. Since 1922, Fire Prevention Week is the longest running public safety campaign that has been in place in public schools to promote school, home, and community fire safety (National Fire Protection Association, 2016).

Like fires, random and violent acts of shootings do not only occur at schools. According to a 2016 Federal Bureau of Investigation (FBI) report, an analysis of active shooters in the years 2014–2015 has identified 20 incidents in each of these years (Schweit, 2016). These incidents

over two years occurred in 26 states and resulted in 231 casualties, excluding the shooters (Schweit, 2016). Some of the places these shootings occurred include the following: a supermarket in which two people were killed, a mall in which seven were killed and five were injured, a courthouse, a Walmart, a movie theater, and government agencies. Specific to Kansas, the Jewish Community Center of Overland Park and the Village Shalom Retirement Community were the locations in which three people were killed on April 13, 2014 (Schweit, 2016). No places, including schools, are immune to the possibility of active shooter incidents.

The severity of school violence and the perceptions of preparedness for school violence has become a forefront of attention. In April 2019, a mass shooting event at Stoneman Douglas High School in Florida, once again spurred not only state attention but national attention on the topic of school safety. As a result, Kansas shifted its requirements for practicing safety drills per year. In July of 2018, the Kansas Legislature ordered the Kansas Fire Marshal to incorporate a yearly total of 16 emergency preparedness drills in Kansas' schools during the school day. This mandate reduced the required number of fire drills from 12 to four, maintained the current number of three annual tornado drills, and added a total of nine crisis drills that "must include but not be limited to intruder response and lockdown drills" (Fire Marshal; Power and Duties; Rules and Regulations., 2018). Essentially, the house substitute bill reduced what was working in preparedness for fires and tornadoes and increased the number of crisis drills without any direction of best practices or procedures to do so. Ultimately, the substitute bill added a total of sixteen drills to a form in which the fire marshal is responsible for monitoring compliance of completion. Until this bill, there were no required number of drills, and after this bill, school districts had less than one month to share the requirements with building administrators and make sure the new forms were available. The increase in drills did not provide a measure of

perception of preparedness for school safety—only a mandate to increase the total number of safety drills.

One of the components of the 2018 bill included a measure for the Kansas State Board of Education (KSBOE) to develop and approve a set of safety standards. Section 76 of Senate Bill 109 stipulated that in order for school districts to receive any school safety funding, the standards would have to be implemented with components centered around infrastructure, technology, and communications systems (Malafronte, 2018). Because these standards were mandated to go into effect July 1, 2019, they were not utilized as a measure of effectiveness for the law requiring 16 drills during the 2018-19 school year.

The implementation of Section 76 of SB109 in Fall 2019 also resulted in updated school safety plans across the state of Kansas. The Kansas legislation proposed yet another new law, SB 128, which was signed into law by Kansas Governor Laura Kelly on April 10, 2019. This latest legislative action reduced the amount of drills from 16 to nine (Fire Marshal; Power and Duties; Rules and Regulations, 2018). During testimony for the bill, it was reported that having 16 drills as outlined in the previous year's bill was causing stress and anxiety for students (Fliter, 2019). However, based on the timing of the bill and the fact that school leaders were not made aware of the impending bill, this newest bill was not informed by a clear use of data that measured the perception of preparedness for school safety by local school officials.

### **Purpose of the Study**

The purpose of this study is to measure Kansas K-12 principals' perception of the factors that contribute to school safety preparedness; incorporating the expectations outlined in the Safe and Secure School Standards adopted by the Kansas legislature in 2019. This study will also inform the effectiveness of the 2018 appropriations substitute bill requiring 16 emergency

preparedness drills and the subsequent 2019 law that changed that requirement again to ten emergency preparedness drills. The perception of preparedness identified by Kansas K-12 principals can be evaluated by utilizing the safe and secure school standards that include crisis drills along with school facility infrastructure, security technology systems, communication systems, notification procedures, an updated crisis plan, annual training, and coordination with local emergency management agencies including law enforcement. Information from this study may be a guiding factor for future state policy, practice, and implementation of school safety preparedness.

The study also seeks to inform the types of drills practiced specifically related to crisis plans. The state of Kansas does require all school districts to have crisis plans as part of district policy; however, the state does not mandate that drills are documented in accordance with their specific crisis plans.

### **Significance of the Study**

Schools used to be considered safe places where children could go to school to learn and teachers could go to work without fear (Hemphill, 2008). This is no longer the case. Students and teachers have lost their lives in school shootings and the perception about the safety of the school environment has changed. The importance of examining school safety practices is important for many reasons. First, school personnel and students have been the target of school violence. Thus, teachers should have a clear understanding of school crisis plans as well as an understanding of how these plans are executed by practicing them with regularity. According to Ricketts (2007), teachers who felt unsafe at school were more likely to experience job dissatisfaction, be unmotivated and less committed, and even more likely to leave the teaching profession.



Next, the frequency of school shootings has increased. Yet, unlike natural disasters that have resulted in immediate changes in safety regulations and practice drills, there have not been intentional mandated efforts to drill for dangerous situations like active shooters in Kansas. This study will examine the perception of Kansas K-12 principals of the factors that contribute to school safety preparedness, including practice of emergency drills. Data from school principals who are on the front line will inform what schools are doing across the state that align with the safe and secure standards or are perceived as effective in creating a safe and secure school. This data will serve to identify where schools have adequate support and where improvement in policy, resources, and support might be necessary to increase school safety and security.

Studies that seek specific information on safe and secure practices in schools aligned to expectations outlined in research-based standards, including specific implementation practices of school safety drills (outside of required fire and tornado drills) has not been a focus of research. This research study could provide insight into what is occurring along with providing critical guidance for increasing how educators, students, and communities view schools as a safe place for teaching and learning.

### **Research Design**

This study utilizes a survey study to examine the perceived safety preparedness of principals outlined in the safe and secure school standards, including the perceived effectiveness of increasing the required number of emergency preparedness drills during the 2018-2019 school year. The literature review in Chapter 2 presents historical evidence of the positive effects associated with the practice of fire and tornado drills. In Kansas, the specific types and amounts of practice for preparedness is mandated. However, there is little existing research related to the perceived perception of preparedness aligned with the new safe and secure school standards and

an increase in crisis drills in schools that include intruder and active shooter practice. School violence, including school shootings, continue to occur prompting some changes, but determining the perception of principals in Kansas school districts in this survey study will provide beneficial guidance to school leaders and governmental policymakers.

This study is based on simple correlation which is used to associate variables related to the perceptions of K-12 Kansas principals on factors contributing to preparedness of safe and secure schools, including the practice of safety drills. A survey was used to gather this information from K-12 public school principals in the state of Kansas. This survey data was then be used to determine any correlation between the perceptions of preparedness and safety and required drills. The study also analyzes survey data to determine if there is any differences between perceptions of preparedness for elementary and secondary school principals in Kansas as well as principals leading schools in urban or rural locations. For example, do secondary school principals feel more or less prepared on matters of school safety than elementary school principals across the state? Do urban districts with access to more resources feel more or less prepared on matters of school safety than rural districts?

This researcher reviewed collected data to determine if there is any consistency or differences occurring with perceived preparedness and safety aligned with the safe and secure school standards, including the increased implementation of school safety drills across the state of Kansas. Information from this study may assist local school and district leaders and state policymakers as they evaluate current practices aligned with the safe and secure school standards and school safety drills mandated in the state.

## **Research Questions**

Research questions: What is the perception of K-12 Kansas principals of the factors contributing to school safety preparedness outlined in the Safe and Secure School Standards?

### **Hypothesis**

*Null Hypothesis #1. There is no significant difference between high school and elementary principals' perceptions of factors contributing to school safety preparedness.*

*Null Hypothesis #2. There is no significant difference between urban and rural school principal perceptions of factors contributing to school safety preparedness.*

*Null Hypothesis #3. There is no significant difference between the number of safety drills and the perceived preparedness of Kansas K-12 school principals.*

### **Assumptions and Limitations**

One assumption of this study is that every district in Kansas has a crisis plan in place. Although Kansas requires districts to adopt a crisis plan, districts have not been required to turn in their plans to the state for verification until the end of June 2019.

The study is limited to the data collected during the 2019-2020 school year and is reflective of completion rates of K-12 Kansas school principals. The data collected was conducted through surveys issued to elementary and secondary school principals throughout the state. Varied levels in the experience and training of school staff and students could affect the implementation of school safety procedures, including the practice of safety drills. An additional limitation is the resources available to implement the expectations outlined in the safe and secure school standards and the protocols of school violence drills in which districts can participate.

### **Definition of Terms**

The definitions of terms for this study are as follows:

*Elementary School:* Any nonprofit institutional day or residential school that offers instruction in any or all of the grade configurations: Grades K-3, Grades K-4, Grades K-5, Grades K-6, Grades 5-6 (Fliter, 2019).

*Preparedness:* Preparedness is the fact of being ready for something; the state of being prepared (Merriam-Webster, n.d.).

*Rural:* Rural is classified as less than 2,500 people in a community and encompasses all population, housing, and territory not included in an urban area (U.S. Census Bureau, 2016).

*Secondary School:* Any nonprofit institutional day or residential school that offers instruction in any or all of the grade configurations: Grades 5-12, Grades 6-12, Grades 7-12, Grades 5-8, Grades 6-8, Grades 7-8, Grades 9-12 (U.S. Department of Education, 2007).

*School Shootings:* School shootings are defined as mass shootings occurring in the school setting, targeting teachers and students (Belknap & Greathouse, 2016).

*School Violence:* For the purpose of this study, school violence is an act of violence that can disrupt the learning process and have a negative effect on students, the school itself, and the broader community (Centers for Disease Control and Prevention, 2018). School violence also refers to any deliberate act that harms or threatens to harm a student, teacher, or other school official, and which interferes with the purpose of school (Robers, 2010).

*Urban:* Urban is classified as: Urbanized Areas (UA's) in a community of 50,000 or more people, Urban Cluster's (UC's) of at least 2,500 people and less than 50,000 people in a community (Robers, 2010).

The terms for this study are incorporated throughout every chapter and are an integral part of the survey to answer the essential questions. In addition, the definitions to these terms align to many resources regarding school violence incidents.

## **Chapter 2 - Review of the Literature**

### **Introduction**

The literature review includes the study of books, journals, national reports, political policy briefs, newspapers, websites, and interviews conducted about school violence. The review focuses on the following areas identified as relevant to shaping this study: (a) theoretical perspective, Maslow's Theory of Hierarchy of Needs, Cognitive-Behavioral Theory as well as Protection Motivation Theory; (b) history of natural disasters that has shaped policy and procedures regarding school safety; (c) history of violence in schools in America; (d) national and state policy that has impacted school safety; and (e) prior research on school safety.

### **Theoretical Framework**

Two theoretical perspectives were utilized for this study. The first, Maslow's theory of hierarchy of needs, is a foundational theory applied to basic learning principles (Maslow, 1948a). Maslow's theory of hierarchy of needs will serve as an introductory theory commonly referred to in the field of education. In addition to Maslow's theory, Cognitive-Behavioral Theory (CBT) focuses on behaviors that solve problems rather than focusing on the foundations of the behavior that needs to be changed (O'Donohue & Fisher, 2012). This theory will substantiate how principals perceive school safety preparedness as they prepare for and train staff, allocate resources, and address the requirements outlined in the Kansas Safe and Secure School Standards.

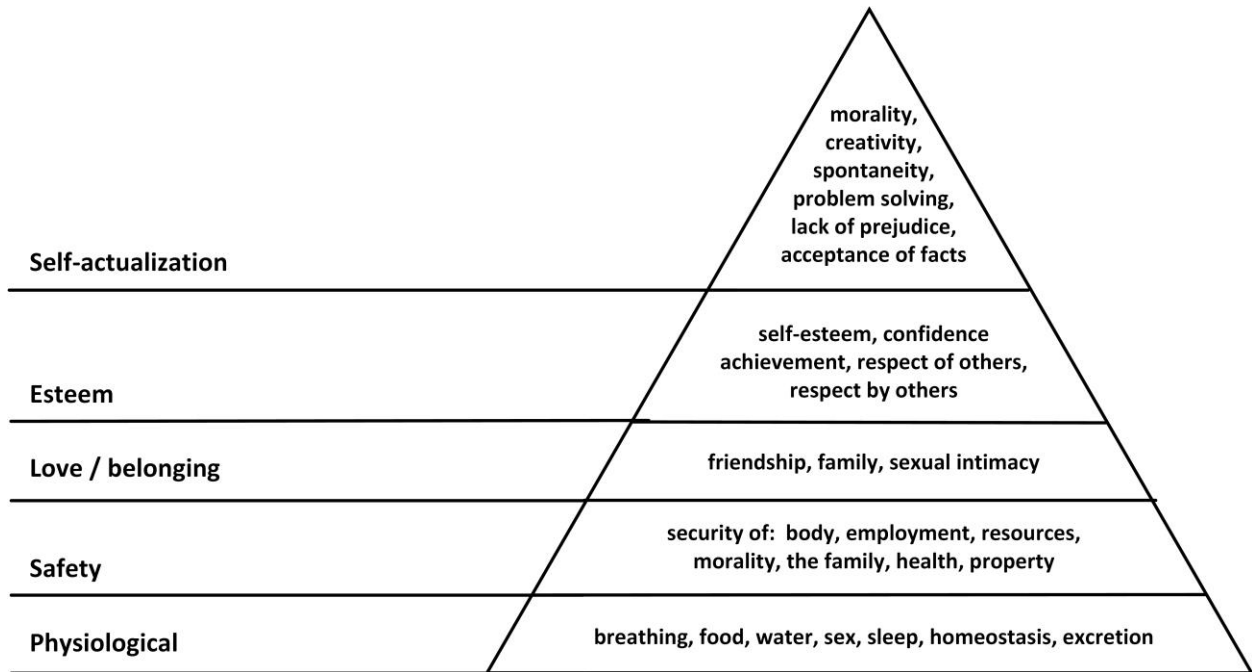
Abraham Maslow's theory of the hierarchy of needs (Maslow, 1948) essentially states that certain basic needs must be met before higher level needs can ever be addressed. Human behavior is motivated by needs that have yet to be satisfied. Safety is one of the basic needs that Maslow's theory identifies must be met before higher needs such as esteem, academic

achievement, and creativity can even be considered. Hence, this theory is important to this study: school safety needs must be addressed for effective teaching and learning to occur.

In Maslow's first level, physiological needs such as food, water, and air must be met (Maslow, 1948). After these needs are met, Maslow believed that individuals could move up to safety needs (Maslow, 1948). Specifically, Maslow stated that "apprehensiveness, fear, dread and anxiety, tension, nervousness, and jitteriness are all consequences of safety-need frustration" (Maslow, 1948, p. 408). When safety needs are met, according to Maslow, stability and firmer ground is ensured (Maslow, 1948). After safety, humans feel the need to belong and be accepted by others, which is the step in the pyramid of love and esteem (Hayhoe, 2004). When the emotional needs of belonging, love, respect and self-esteem are conquered, we are then allotted characteristics of self-respect and self-confidence (Maslow, 1948). The highest need in Maslow's hierarchy is the need for self-actualization, which is where a person can reach his/her fullest potential (Maslow, 1954).

Thus, according to Maslow, safety is a basic need that must be present in order to move to higher needs, such as interaction with others, esteem, and authenticity. When applying Maslow's hierarch of needs theory to teaching and learning, all involved in the educational setting need to feel safe in order to achieve at high levels.

**Figure 2.1.**  
*Maslow's Hierarchy of Needs (Burton, 2012).*



### ***Cognitive-Behavioral Theory***

Cognitive-Behavior Theory (CBT) originally based on the works of Aaron Beck, M.D. and Albert Ellis, Ph.D., ties emotional and behavioral reactions to events and experiences (Hoermann et al., 2015). This theory, as it would apply to school safety, describes how distress can often distort people's perceptions. The cognitive-behavioral model helps individuals learn to identify and evaluate their automatic thoughts so that they can react to a situation in a productive manner.

The three major components of CBT revolve around thinking and behavior. First, cognitive activity affects behavior. Second, cognitive activity may be monitored and/or altered.

Last, desired behavior may be affected through cognitive change (Dobson, 2013). One of the approaches to implementing this theory is through CBT, specifically training and problem solving (Dobson, 2013).

CBT aligns with the premise of school safety in that through practice and repetition, such as school safety drills, human beings are able to take in information from these practice experiences specific to their environment, process the information, and then direct their emotions and behaviors towards meeting their individual needs (Thyer et al., 2012). An example of applying the three major components in this theory to the premise of this study could include having students and staff participate in a drill. Participation in a drill initially exposes students and staff to an experience that they can cognitively process. This cognitive processing will produce a behavioral response. In the case of a drill, an example of a behavioral response might be a fear that causes a staff member or student to freeze. Because as in step two of CBT, the cognitive activity could be altered, staff or students could discuss (think about thinking) the process of the drill and then practice again in order to potentially alter the behavioral response, which is the third step of CBT. In essence, using CBT as a theory can help school leaders better understand student and staff response to crisis drills and evaluate how to better prepare them to maintain the highest level of safety for all concerned.

### *Theoretical Conclusion*

Utilizing the theory of hierarchy of needs as well as the CBT to evaluate principals' perceptions of preparedness is appropriate. Maslow's theory is applied to education in the sense that if the safety needs of students and staff are not met, students are not able to learn. CBT is utilizing cognitive functions to make conscious choices about what behaviors humans will engage in when reacting to situations in an environment.



# **History of National Disasters that has Shaped Policy and Procedures Regarding School Safety**

## ***Fires***

School building fires are important to this study because past response to school fires has resulted in changes to practice, policy, and preparedness in the event of a crisis involving fires. This section will focus on some noted historical school fires that have shaped fire prevention, policy, and preparation in addition to highlighting that as a result of the actions taken, school fire death and injury has been minimized substantially.

Unlike the trends in school shootings, the history of school fires has resulted in swift change to legislation and policy that strive to continuously improve safety and decrease death and injury. The worst school fire incident occurred in 1937 at Consolidated School in New London, Texas (Baldassarra, 2015). The fire, caused by a natural gas explosion, resulted in 294 fatalities (Baldassarra, 2015).

On December 1, 1958, 92 students and three nuns died in The Our Lady of the Angels school in Chicago, Illinois (Groves, 2008a). The fire, which after a three-year investigation was determined to be intentionally set by a student, began in the barrel of a trash can in the basement of the school (Brendtro, 2005). Within nine days of the fire, a committee called the “blue ribbon jury” met for six days with the goal to make immediate changes to save lives throughout the country (Groves, 2008, p. 8). The committee included representatives from entities such as insurance, construction, architects, engineers, leading Chicago businesses, and fire protection leaders.

Less than one month after the deadly fire, more than 20 recommendations were made to improve fire safety in schools. Some of the recommendations included automatic sprinklers and

smoke/heat detectors, systems that would alert not only school occupants but also the fire department, and monthly fire drills as well as fire safety training for school employees (Groves, 2008).

This fire also spurred action from other cities across the United States (Groves, 2008). New York City and Los Angeles began conducting fire inspections and made immediate changes to codes and regulations (Groves, 2008). The Our Lady of the Angels School fire is credited for bringing about a great deal of attention to fire safety in U.S. schools.

Another study in 1972, intended to reduce fire-related deaths, led to the forming of the United States Fire Administration (USFA) (Sirianni, 2015). It was during this time that smoke detectors were added to homes and businesses, which included regular inspections. At this time, insurance companies also began to get involved and the chairman of the National Commission on Fire Prevention and Control encouraged then President Richard Nixon, to read a report called *America Burning*, which stated that fire prevention in schools should be mandatory (Sirianni, 2015).

Although data shows fires in schools and on school property still exists, the reform has nearly eliminated fatalities. Between the years 2003 and 2005, the National Fire Incident Reporting system showed that 40 percent of school-related fires occurred outdoors, 43 percent were structural fires, and six percent were vehicle fires (USFA Releases School Fires Report, 2007). Of these fires, there were 100 civilian injuries and no fatalities.

From 2009–2011, an estimated 4,000 school building fires were reported in the United States, approximately 75 injuries reported and rarely any fatalities. In three-fourths of school building fires during this time period, the fire was limited to the object of origin with the three

leading causes of school fires identified as cooking (25 percent), intentional action (42 percent), and heating (10 percent) (Federal Emergency Management Agency, 2014).

In Kansas, schools are required to do monthly fire drills. These drills are timed and documented. In addition, the fire marshal regularly inspects school buildings to ensure alarms are working, the school meets code, and the logs documenting drills are complete. Fire drills are regular, mandated, accountability measures put in place to ensure school safety.

### **Tornadoes**

The United States recorded close to 1,000 tornadoes a year, few of which cause casualties, but that has not always been the case. Because tornadoes threaten the life and safety of occupants and structures alike, many are reconsidering previous low standards regarding codes that deal with hazardous tornadic wind loads (Masoomi & van de Lindt, 2016).

The Tri-State Tornado of 1925 detrimentally affected nine schools in its path that covered three states over the course of three and a half hours (Johnson, 2012). During this storm, all buildings in the village of Gorham, Illinois were destroyed, and 37 people were killed (Johnson, 2012). The storm did not end there. Schools and homes collapsed in Murphysboro, Illinois, a town of only twelve thousand residents. Two hundred thirty-four people were killed in Murphysboro that day, making it the highest death toll caused by a tornado in United States history (Johnson, 2012).

One of the reasons this tornado was so deadly is that in 1925 there was limited ability to warn people of the dangers of storms. In addition, structures were not built to withstand strong winds or tornadic activity (Johnson, 2012). Other proactive solutions abounded after the Tri-State tornado. The construction of hundreds of storm shelters as well as a change in property

coverage to include “tornado insurance” emerged, which had never been covered previously (Changnon, 2009).

Each year in the United States, tornadoes cause millions of dollars in damage and account for approximately 70 deaths on average; however, this average number of deaths used to be much greater prior to forecasting and warning systems that were put in place (Carsten, 2017). Kansas is included in a region commonly referred to as “Tornado Alley,” which also includes the states of South Dakota, Nebraska, Oklahoma, northern Texas, and eastern Colorado, where the most deaths and more than 1,500 injuries occur from tornadoes each year (Carsten, 2017).

Severe weather outbreaks during the school year put large numbers of students and staff attending school at risk (Van Meter & Dixon, 2014). Although schools have no control of whether or not a natural disaster will strike, through diligent planning, preparation for natural disasters through drill and practice, as well as more effective facility design, schools can minimize property damage and save lives (Kennedy, 2004). The April 27, 2011 tornado outbreak across the southern United States recorded the most tornadoes in a single 24 hour period and was the second deadliest tornado outbreak in history (Simmons & Sutter, 2012). Less than a month later, the tornado that tore apart Joplin, Missouri set a new record of having the most fatalities from a single storm since records on that statistic began (Simmons & Sutter, 2012). The Joplin tornado, which occurred on May 22, 2011, was classified as an EF-5 tornado and claimed 158 lives (Simmons & Sutter, 2014).

Like any type of an event that hinges on safety and survival through efficient and effective warning systems, tornado related deaths can depend on non-structural related factors. The timing and nature of a tornado warning and the compliance towards heeding those warnings can have a significant impact on the outcome. In the aftermath of tornadoes, communities have a

“window of opportunity” to utilize state and governmental assistance to enhance safety measures when rebuilding (Paul & Stimers, 2015, p. 201). Some states have taken the approach of heeding to early watches and warnings to the extreme notion of dismissing school (Van Meter & Dixon, 2014). In 2012, after the severe outbreak and deadly tornado season of 2011, thousands of students were dismissed early in states from Mississippi due to the threat of potential outbreaks (Van Meter & Dixon, 2014). For some, the weather did not intensify, and students lost valuable instructional time. For other states, such as Henryville, Indiana, a tornado hit after the students were dismissed and ceilings and walls were significantly damaged and/or destroyed in locations where students would have been sheltered (Van Meter & Dixon, 2014).

Similarly, to practicing for any potential emergency, the most important aspect of tornado preparedness in schools is to develop a solid safety plan and then practice. These plans should be modified to meet the building design and the ability to quickly and efficiently move people to the safest locations (Edwards, 2018). For example, a tornado safety video for classrooms to utilize centered around a classroom in Missouri and was shared by the Storm Prediction Center out of Norman, Oklahoma. This video provides a good example of how drills need to be customized to fit the developmental needs of the students as well as the physical structures of the building(s) on individual campuses (Edwards, 2018).

### **History of School Violence and Shootings**

School violence and school shootings are not a new phenomenon, as will be documented in this historical section. The rationale for choosing some, but not all, of the cases from the 1700’s through the end of the 1900’s is to portray that the rationale and trends relating to school violence has not changed much over time. However, there is opportunity to better prepare for and be accountable for school violence through documented drill and practice as well as

identified components important to school safety and preparedness. In addition, the research of the literature in the history of school shootings will also support several components of this study, including citations of urban versus rural school shootings as well as elementary and secondary school violence incidents.

School shootings are not a new phenomenon. In fact, one of the earliest shootings to happen on school property in the United States was the Rebellion School Massacre, which occurred near present day Greencastle, Pennsylvania on July 26, 1764. Although the stories of the actual happenings have some discrepancy, the essence is that Enoch Brown, the school master and either ten or 11 students were murdered and scalped by a squad of Seneca Indians (Dixon, 2005). Enoch Brown, the school master, pled with the Indians to spare the lives of the children and only take him; although two students survived—they were still scalped—four were taken captive and the rest were killed (Dixon, 2005).

Thirteen major incidents of school violence and school shootings occurred in the 1800's (K12 Academics, 2013). One, involving repercussions of a student discipline incident, occurred on Wednesday, November 2, 1853. Matthew F. Ward murdered teacher William H.G. Butler in his classroom in the Louisville High School in Louisville, Kentucky (Hassenpflug, 2004). The shooting was in retaliation for the day before, when the teacher disciplined Matthew Ward's younger brother. In that incident, some peanut shells were left on the floor, and three boys—one being William Ward—were questioned about leaving the mess. William denied eating the nuts during class; the teacher felt like he was lying about the incident based on other student testimony and administered corporal punishment to the younger Ward brother (Hassenpflug, 2004). Because William Ward had a history of being disciplined, Mrs. Ward demanded a meeting with the teacher; the teacher complied and visited the home. During that visit, Matthew

Ward made it clear to School Master Butler that he did not like his brother being disciplined. The next morning, Matthew went to the school and shot the school master (Hassenpflug, 2004).

One highly debated topic that pertains to school violence is that of gun control. In fact, the argument of students being allowed to carry weapons on college campuses was debated in the Kansas Legislature in January of 2017 (Woodall, 2017). Ironically, the same conversations, although related to a much larger student population, have been happening since the early years of formal education settings. In an 1866 editorial in the New York Times, the pistol makers, Colt and Remington, were called out for mass producing firearms that were accessible to students (Carrying firearms, 1866). The writer of the article proclaims, “Who can be safe, when boys in school are furnished or allowed to carry loaded arms about their persons?” (Carrying firearms, 1866, p. 2). The article continues with recommending extreme consequences for those who carried a weapon on school grounds: “Any boy who carries [a] pistol should be [removed] at once from any school or house or town...” (Carrying firearms, 1866, p. 6).

The argument came to fruition a little over a year after the publication of the editorial in the New York Times. The New York Times published a news article on June 9, 1867 about a student, Arthur Wellington Day, “a year old lad”, who carried a pistol in his pocket because he intended to shoot a dog he claimed had bitten him (A boy shot by his schoolfellow-A curious affair, 1867, p. 5). The pistol was loaded and capped in his pocket and while in school, the student reported that the following occurred: “...he thrust a late-pencil into the pocket containing the pistol, and unfortunately it struck the hammer and exploded the pistol, the ball passing through the thigh of a little fellow who was standing hear him...” (A boy shot by his schoolfellow-A curious affair, 1867, p. 5). Further investigation into the matter, however, did not

support the boy's story. In fact, the boy was seated and fidgeting with the weapon when it discharged and injured the other student (A boy shot by his schoolfellow-A curious affair, 1867).

On December 22, 1868, a schoolteacher attempted to whip a student; the student resisted, however, and left school. The next day, the boy returned to the school with his older brother and a friend and then intended to seek revenge on the teacher. The teacher was not at the school, so the boys went to the teacher's home. A gunfight ensued, and everyone except the student's brother died (Tragic shooting affair near Chattanooga, 1868).

As will be noted in some of the shootings that have occurred more recently in America's schools, shooters often commit suicide after a violent incident. In Salisbury, Maryland on March 9, 1873, Miss Shockley and her four small children were approaching the schoolhouse.

Approached by George Hall, a 19-year-old, Miss Shockley was asked not only about a letter but also about whether or not her 16-year-old son was in school (The recent murders, 1873). Hall expressed to Miss Shockley that he intended to shoot her, but she dismissed him. However, he followed through and shot her in the heart right in front of the schoolhouse. Later, Hall threw himself under a train and died (The recent murders, 1873).

Gang-related incidents can be documented as early as 1884. In this case, Jesse James and his gang were at the forefront of news organizations, and young kids began to mimic his antics. On March 6, 1884, a number of boys were using the Concord-Street Schoolhouse for an "unknown purpose" (Another 'Jesse James' gang, 1884, p. 2). When officers went to the school house to investigate, the gang scattered and one pulled a revolver and began shooting; two were captured (ages 14 and 12), but the rest escaped (Another 'Jesse James' gang, 1884).

One of the first reported school suicides occurred in Watertown, New York on April 12, 1887. A student attending the Potsdam Normal School, Edwin Bush, shot himself in the head at



approximately 11:00 a.m. The newspaper article noted that “no cause is assigned for the cause of death” (Suicide of a student, 1887, p. 10).

The *Chicago Tribune* reported one school shooting as “the wildest excitement over developments today in the shooting of Miss Irene Fann by Will Guess” (He wanted to kill her, 1887, p. 10). Miss Fann had whipped Will’s little sister the day before for breaking school rules. Will then murdered the teacher the next day (He wanted to kill her, 1887).

Although no fatalities were reported in this case, one of the first known mass school shootings occurred on April 9, 1891 at St. Mary’s Parochial School in Newburgh, New York. The shooter was 70 year-old James Foster, who, “without warning or provocation raised his gun to his shoulder, took deliberate aim, and fired into the crowd of boys” (Fired into a group of children, 1891, p. 2). The New York Times went onto report that the shooter was arrested and thought to be “demented” (Fired into a group of children, 1891).

The above scenarios were reports of historical school shootings and further evidence of other forms of school violence also occurred during the 1800’s. These attacks included students on other students or teachers and included weapons such as knives or hitting with stones (K12 Academics, 2013).

The reports of school violence in the early 1900’s did not include as many mass shooting incidents (K12 Academics, 2013). Examples of some incidents will be highlighted along with three violent attacks involving either arson or explosions. One incident that stands out occurred on February 24, 1903 in Inman, South Carolina. In this case, the teacher, Reuben Pitts, fatally shot 17-year-old student, Edward Foster. Edward tried to avoid a punishment of being struck by the teacher’s rod. When Edward resisted, the teacher felt self-defense was necessary and pulled out his pistol and fatally shot the student (A tragedy and it’s lesson, 1903). The newspaper report

from the *Yorkville Enquirer* gave additional accounting of the incident that involved qualifications for hiring teachers. The newspaper article stated that one of the issues with public education was the difficulty of hiring teachers with qualities of “common sense” (A tragedy and it’s lesson, 1903, p. 2). Although many teachers pass exams, the mere passage of an exam doesn’t prove that the teacher will be successful. The article went on to explain that the teacher had been struggling with classroom management with several boys all year, and these boys felt they could outnumber the teacher. The teacher, using force unsuccessfully, had to eventually defend himself from the large boys. The article went on to explain two major lessons learned from this tragedy. The first was that there “should be greater care than customary in the selection of the teachers who are to be vested with authority over the youth in the public schools” (A tragedy and it’s lesson, 1903, p. 2). The second lesson stated that:

the slightest assault on a school teacher in a school room should be defined by law as a most serious misdemeanor, punishable by a public flogging or in such a way as might best emphasize the gravity of the offense, and increase the necessary authority of a teacher (A tragedy and it’s lesson, 1903, p. 2)

Three incidents in this time period revolved around shootings of teachers or students because of some sort of a romantic incident. On October 10, 1906, teacher Mary Shepard was shot to death by 25-year-old Harry Smith in front of her class of over 60 pupils. According to the news report, Harry had been “brooding over the unhappy ending of his courtship” (History of most remarkable crime known to Ohio is closed through self destruction of Wanton murder, 1906, p. 1) and confronted and shot her at the school, which incited panic from the students who fled the building. The Daily Capital Journal of Salem, Oregon, also reported that after the

shooting, Harry fled with a posse in his pursuit. However, he shot himself to death at his father's house before he was caught (Shot school teacher, 1906, p. 8).

The next shooting incident, although not involving a teacher, was also the result of a romantic relationship. In this case, Dmitri Treschenko, a middle-aged Russian laborer, lived with another Russian family. Dorothy, the 10-year old daughter of the family, was shot and instantly killed by the laborer as she neared her school house because the father figured out that the laborer "attempted to address unwelcome attention to her" (Parents order Russian from their home and precipitate double tragedy, 1909, p. 2). Like other cases, after shooting the girl, Treschenko immediately turned the weapon on himself. Another incident involving rejected advances occurred on March 27, 1919 at Lodi Township, Michigan. There, a 19-year-old school teacher, Irma Casler, was shot by Robert Warner in her classroom after rejecting his advances (K12 Academics, 2013).

One of the most horrific school shootings of this time period occurred on May 18, 1927, in Bath, Michigan. The article account on the front page of the May 19, 1927 special edition of the New York Times, was eerily similar to reading accounts of Columbine, Virginia Tech, and Sandy Hook in terms of the number of casualties, the planning by the perpetrator, the community response, and the general atrocity and disbelief that this kind of tragedy could ever happen. The final death toll in the Bath massacre was 45, including 33 pupils from the school. In addition to the death toll, 96 were injured. Andrew Kehoe, the school board treasurer, planted dynamite in the basement below every classroom in the school. Only one wing of the building actually detonated; had the whole building exploded as planned, it would have been reduced to rubble and there would have been little chance of any survivors (Maniac blows up school, kills 42, mostly children; Had protested high taxes, 1927). Kehoe, age 55, was in deep financial trouble

and blamed the high taxes of the school as the primary reason he was unable to lift the mortgage on his home. In the middle of the night, Kehoe finished all the wiring details of the dynamite, which he had been stockpiling. He also set dynamite to his barn and homestead as well as loaded his truck with explosives, tools, and guns. He first set off the explosion to his homestead, about a mile away from the school. The school explosions began abounding ten minutes after classes started. Because there was only a week left in school, many seniors were not in school, so attendance was lower than usual. After the explosion, the community began immediately helping with rescue efforts. Mr. Kehoe fired his rifle into his vehicle, which caused it to explode and killed himself and the superintendent who was standing nearby as well as another elderly man. The postmaster near the vehicle died later at the hospital (Maniac blows up school, kills 42, mostly children; Had protested high taxes, 1927).

Similarly, many instances of school shootings occurred in the 1940's, 1950's and 1960's, although none had as many multiple casualties as the Bath shooting. On August 1, 1966, however, the University of Texas Massacre claimed the lives of 16 people and wounded 31 others during a 96 minute shooting rampage masterminded by Charles Joseph Whitman, a 25 year-old architectural engineering student at the University of Texas (The madman in the tower, 1966).

After killing his wife and mother, Whitman climbed to the top of the University of Texas Tower and started firing, highlighting that any person, anywhere—even on a college campus—could be killed at random (Colloff, 2016). Until this time period, the sniper fire from the Texas Tower shooting struck down more people than had ever before been killed by gun fire at any American school (Stearns, 2008). Although this study primarily focuses on K-12 schools, this

shooting is important because it introduced a new concept of “mass shooting” outside of the context of the war or battle field (Gunman kills himself after firing on schoolchildren, 1993).

In May of 1970, two very notable school campus shootings occurred but for very different reasons than the incidents thus far recapped in this review of literature (O’Hara, 2006). When President Nixon announced on April 30, 1970 that the American military would be commissioned to Cambodia, protests immediately commenced on campuses across the country (O’Hara, 2006). At Kent State, these protests turned tense and violence culminated when National Guardsman turned and fired into a crowd of protesters. The incident “brought to light the seriousness of campus protests and grave implications of hardline responses to them” (O’Hara, 2006, p. 302).

Almost concurrently, the Jackson State protests occurred on May 14, 1970 (McGee & Platt, 2015). Unlike Kent State, Jackson State was a predominantly black institution, and “was one of many complex factors that influenced how police officers responded to student unrest...” (McGee & Platt, 2015, p. 15). As this era in history witnessed many campus protests regarding Vietnam, Civil rights, and racial equality, these two events began to shape college campus responses to civil unrest (McGee & Platt, 2015).

Although the two incidents were notable to the early 1970’s, the middle to late 1970’s also highlighted violent incidents in notable U.S. school shootings. On Dec. 30, 1974, three were killed and nine more wounded by a 17-year-old sniper who was a senior in high school in upstate New York (Kaufman, 1975). Anthony Barbaro entered the school shortly after 3:00 p.m. and barricaded himself on the third floor of the building (McFadden, 1974). Prior to barricading himself, he started a small fire of cardboard boxes in the hallways. When a janitor smelled smoke and went upstairs to investigate the incident, Barbaro shot him in the head (Kaufman, 1975). As fire engines and other emergency personnel rushed to the building, Barbaro fired bullets at a rapid rate, killing one firefighter as well as a mother driving with her children down the street (Kaufman, 1975). Similar to stories of modern-time school shootings, Barbaro was described as somewhat of a loner, but other than “guns describing his whole life” (Kaufman, 1975, p. 3),

Barbaro was a good student who attracted no attention that would indicate he was capable of an act of violence.

The middle to late 1970's incurred additional counts of school violence. In 1976, Edward Charles Allaway, a janitor at Cal State Fullerton, walked through the library of the university and shot nine people, killing seven (Library killer may be released, 2001). Up until 2011, this marked the worst mass murder in Orange County (Luppi, 2016). On the afternoon of Feb. 22, 1978, one student was killed and another wounded at Everett High School in Lansing, Michigan (Lundy, 2011). In this case, Roger Needham was considered a "smart but troubled loner, picked on by classmates," which resembles descriptions of modern day school shooters (Lundy, 2011, p. 3). However, the culmination of the event was quite different from today's school shooting outcomes. School opened the next day and Needham was ultimately tried as a juvenile and released at age 19 (Lundy, 2011).

To finalize the major school shootings of the 1970's, the incident on January 29, 1979, is one of the most disturbing cases to end the decade. Brenda Spencer, labeled "a problem child and drug abuser with a violent streak" received a .22 rifle and ammunition from her father for Christmas (Langman, 2015, p. 561). Brenda Spencer, who was small in stature obsessed about being a sniper and killing cops (Langman, 2015). Spencer bragged to friends about an upcoming event that she proclaimed would be "big" and "on television" and then commenced to shooting at the elementary school across the street from her home garage, a fortress she had created to commit the act (Langman, 2015, p. 563). During the spree, she killed two and wounded nine with no accounted signs of remorse, rage, or distress after her surrender (Langman, 2015).

Although the middle and late 1980's saw an increase in school-related shootings, the early 1980's only reported a few school shootings involving multi-victims (K12 Academics,

2013). At Parkway South Junior High, 14-year-old David Lawler shot two students (8th grader kills youth, then himself at school, 1983). In an account by a classmate published 16 years after the incident, the occurrence happened during the school day with shots heard, however, no one even remotely thought a shooting was happening in the school but instead believed some firecrackers had been shot off nearby (Ribbing, 1999). In contrast to many of today's incidents, the principal announced via the loudspeaker during lunch that there had been a shooting, also sharing that the danger had passed and classes resumed as normal (Ribbing, 1999).

Another shooting involving an eighth-grade student occurred in Goddard, Kansas on the morning of January 21, 1985 (Adame, 2015). Authorities reported that the shooter, 14-year-old James Alan Kearbey, had prepared a hit list of three people. Wearing a long trench coat and dark glasses, he entered the middle school and when he was confronted by the school principal, a teacher, and the athletic director, he began firing. He killed the principal and injured the other two (Adame, 2015).

Similar occurrences at the middle school level have been documented. On September 4, 1985, a 12-year-old boy shot a 14-year-old girl riding the bus home from school. Students reported that the student pulled the trigger on a dare, but had not intended to harm anyone (Douglas, 1985).

Sometimes school shootings occur as a result of incidents that begin on campus and carry over to extra-curricular activities. At Murray-Wright High School's football field on the evening of October 18, 1985, a Detroit Michigan teenager who had been involved in a fight in school earlier in the day shot and injured six teenagers ranging in age from 13 to 18 (Six students wounded, 1985). The shooting, which occurred right before half-time as the band was preparing to perform, was the second shooting in the same week in Detroit involving high school students.

The earlier shooting occurred amongst students at a McDonald's restaurant, but was the result of a carry-over altercation from school (Six students wounded, 1985).

A planned revenge shooting by a 14 year-old girl in Spanaway, Washington on November 26, 1985 took the life of two wrestling students before the shooter turned the gun on herself and took her own life (Winegard & Ferguson, 2017). Prior to the shootings, she shared with several friends that she planned to "get" her ex-boyfriend and his friend (Winegard & Ferguson, 2017).

When a principal in Portland, Connecticut asked a 13 year-old eighth grade student to remove his hat on December 10, 1985, the student, Floyd Warmesley, left the school and walked four miles to his home to retrieve a gun from his father's room (Madden, 1985). When Warmesley returned to the school, he fired through the office window and the flying glass wounded both the principal and the secretary (Madden, 1985). The agitated student then went upstairs and took a student hostage and shot and killed the custodian. What is most interesting about this case is the aftermath of the shooting. When students returned to school, the principal held an all school assembly so that "everybody would have the same basis of information and so that we would not try to hide things from the youngsters" (Madden, 1985, p. 1). Students then went to their classrooms, where they had open discussions about the event.

Some school violence incidents are the result of odd sequences of events in which there is not any indication of impending threat. A school bombing in the small town of Cokeville, Wyoming on May 16, 1986, occurred when a husband and wife duo, David and Deloris Young, attempted to take the small school of 150 students hostage for 300 million dollars in ransom money (McGirk, 1986). They entered the school armed with six pistols, rifles, and a shopping cart filled with explosives. Deloris, who fumbled with the triggering device, accidentally set it



off. David then shot his wife and shot himself. Seventy-three students were injured in the blast, but no student or teacher lives were lost (McGirk, 1986).

Similar to the prior incident, a bizarre shooting at an elementary school in Winnetka, Illinois in May 1988, by 30-year-old Laurie Dann is an example of a random act by a person whose emotional stability raised red flags in three states. She exhibited bizarre behaviors, including stalking and an attempt to poison students at a local fraternity house (Police still unraveling trail left by woman in rampage, 1988). Authorities believe that the family with whom Dann was employed as a nanny had announced plans to move out of state (Police still unraveling trail left by woman in rampage, 1988). After setting her employers' home on fire, she headed to an elementary school, where she injured five children and killed one (Police still unraveling trail left by woman in rampage, 1988).

In Greenwood, South Carolina, a 19-year-old gunman with no connection to Oakland Elementary School walked through the front doors around eleven o'clock in the morning and began firing (Gunman in S. Carolina School Kills 1 and Wounds 10 Others, 1988). James William Wilson, who suffered extensive mental illness, took the gun that his grandmother used for protection and randomly entered the school. Two girls were killed (Knapp, 2012).

Bullying behavior was the tipping point for 16-year-old Nicholas Elliot on December, 1988, at Atlantic Shores Christian School in Virginia Beach, Virginia (Fox, 2017). Elliot first shot a teacher and then worked his way to confront the bully. In an interview from the correctional center, where Elliot is serving a life sentence, he explained that the bullying was a torment that created such rage that he lost all focus and control (Fox, 2017).

To finalize the report of school shootings in the 1980's, Patrick Purdy carried out an attack on a school he attended many years before. On January 17, 1989, Purdy killed five and

wounded 31 at Cleveland Elementary School in Stockton, California (Langman, 2015). Purdy, who suffered from severe childhood trauma and depression, had also been arrested numerous times for drug offenses and sexual solicitation (Langman, 2015). Later in his life, he became extremely prejudiced against Southeast Asians, which made up a large portion of the elementary school where he waged his attack (Wong et al., 1989).

The early 1990's was a continuation of the trends of school shootings of the 1980's; the shootings were as frequent as the causes were varied. On March 27, 1990, a 14 year-old black youth was shot after being taunted by three white youth who were shouting racial slurs on the stairway of the high school (Black youth shot by whites at school, 1990). This student had been the peacemaker in an incident that occurred the month before where the same three white youth were taunting another black student (Black youth shot by whites at school, 1990).

Gangs were to blame for the September 11, 1990 shooting at Sam Houston High School in San Antonio (3 San Antonio teens wounded: Gangs blamed for gunfire at Sam Houston High, 1990). Both the victims and the suspects attended the school and weapons were found in a school locker right after the shootings occurred late Tuesday morning (3 San Antonio teens wounded: Gangs blamed for gunfire at Sam Houston High, 1990).

Six separate school shooting incidents resulting in 11 deaths occurred in 1991 (K12 Academics, 2013). Of those incidents, a graduate student who was passed over for an award at his graduate school in the physics department at the University of Iowa created the most casualties, killing six including himself and paralyzing one (Hersh, 1991). The shooting spree began at approximately 3:40 p.m., originated in Van Allen Hall and then ended a few blocks later in Jessup Hall, an administrative building (Hersh, 1991).

During the years of 1992 and 1993 there was a continued, steady pattern of school shootings, totaling 17 (K12 Academics, 2013). The highest number of casualties in 1992 occurred at Lindhurst High School in Olivehurst, California, where a 20 year-old former student killed the social studies teacher who had given him a failing grade (Klein, 2012). He also killed three students and injured 13 others that day (Klein, 2012). On November 4, 1992, the superintendent of Detroit Public Schools declared a district-wide emergency when three separate school incidents resulted in 11 students being hit by gunfire over a four hour period (Security tightens after 11 Detroit students are shot, 1992).

A random shooting occurred at Central Junior High School in Sheridan, Wyoming on September 17, 1993. Kevin Newman, 29, walked onto the middle school football field during physical education class and started shooting (Gunman kills himself after firing on schoolchildren, 1993). Four students were injured, and the gunman shot himself and died at the hospital. School resumed on Monday and counseling services provided (Gunman kills himself after firing on schoolchildren, 1993).

Over twenty school shootings from 1994-1996 occurred, including a Frontier Middle School shooting on February 2, 1996, in Moses Lake, Washington (Klein, 2012). The shooter, 14 year-old, Barry Loukaitis, meticulously laid out his clothing that allowed him to conceal 80 rounds of ammunition across his body, a holster with two handguns, while carrying his father's rifle concealed through a cut pocket in a long black trench coat (Klein, 2012). Loukaitis walked over a mile and a half to school on the morning of February 2 and headed straight to his algebra class where he shot a student who regularly taunted him by calling him "faggot" (Klein, 2012, p. 81). He also killed a second person and his teacher before another teacher wrestled the gun away from him.

On October 1, 1997, a school shooting occurred in Pearl, Mississippi. Luke Woodham, a 16-year-old, first killed his own mother then wounded seven others and killed two at Pearl High School (Finley, 2014). Woodham had allegedly been bullied in school, and after a new girl in town broke up with him, he and a group of friends became followers of Satanism and Hitler (Finley, 2014). Two months later, 14-year-old Michael Carneal, killed three students and wounded five during a prayer circle in West Paducah, Kentucky (Finley, 2014).

In just a four-month period in 1997, five school shootings occurred in the United States beginning in March and ending in June (Finley, 2014). Many of the shootings in 1997 garnered attention around the nation because the public was equating school shootings as being influenced by violent media, specifically movies. The shooting in Craighead County, Arkansas was unique as two school shooters, 13-year-old, Mitchell Johnson, and 11 year-old, Andrew Golden, planned the incident (Kifner et al., 1998). In this case, Golden stole rifles and ammunition from his grandparents' house and then waited in the nearby woods while Johnson pulled the fire alarm in the school and then joined Golden in the woods (Kifner et al., 1998). A teacher and four girls were killed, and ten others were wounded; the students had verbally stated in advance that they planned to retaliate against anyone who had ever wronged them.

### **Columbine shooting spurs response changes from law enforcement**

The school shooting that arguably was the first to be covered by the media as one of the biggest news stories of its time was the Columbine High School shooting in Littleton, Colorado, on April 20, 1999 (Schildkraut & Hernandez, 2014). On that day, Eric Harris and Dylan Klebold, both students at Columbine, had planned to create an attack that would “top McVeigh” who orchestrated the Oklahoma City bombing (Cullen, 2009, p. 33). Meticulously planned for over a year, the original plan consisted of three acts, the first which would be a series of bombs in the cafeteria during the A-lunch shift, the most populated lunch shift. Act II of the plan consisted of

Eric and Dylan firing at those survivors exiting the cafeteria. Act III, in which each of the boys' cars were loaded with bombs, would occur as rescue crews were coming to tend to the injured. Eric and Dylan had planned to drive past them and blow up their vehicles, causing even more mass casualties to the civilians trying to help. Not having a plan "B" when the first bombs failed to detonate, Eric and Dylan improvised and entered the building wearing shot guns, ammunition, and pipe bombs strapped to their bodies covered by long, black dusters or trench coats (Cullen, 2009, p. 47). The boys immediately started firing and killed 12 of their classmates, a teacher, and themselves (Marshall, 2000).

The shootings at Columbine immediately started conversations amongst congress, law enforcement, schools, and mental health professionals (Marshall, 2000). Columbine also re-defined police response mechanisms to active shooters in schools (Buerger & Buerger, 2010). Although Columbine may have started many conversations, further literature review study reveals that school shootings did not end with Columbine.

Less than a year after Columbine, one of the youngest documented shooters engaged in a school shooting at Buell Elementary School in Flint, Michigan (Boggs, 2000). On February 29, 2000, a first-grade student brought a weapon from home and killed his six-year-old classmate, Kayla Rolland (Boggs, 2000).

Some common terminology in the research around school shootings focuses on bullying behaviors, and schools have taken measures to address bullying in schools. Unfortunately, even after investing \$123,000 from a Justice Department Grant to implement anti-bullying programs, Santana High School in Santee, California was the scene of mass violence on March 5, 2001 (Wilson, 2006). The shooter, Charles Andy Williams, was a freshman that shared over and over

his intent to shoot classmates. Ultimately, the freshman killed two students and wounded thirteen others with his father's gun—all in response to bullying from fellow students (Wilson, 2006).

Anxiety and distress can also play a factor in reporting incidents of potential school shootings. Once such incident involved 14-year-old student, James Sheets, who was distraught from a recent break-up coupled with a discipline incident at school. He fatally shot his principal and then himself in the cafeteria of his middle school in Red Lion, Pennsylvania, on April 24, 2003, at approximately 7:30 in the morning (Pro, 2003).

After shooting his grandfather and his grandfather's girlfriend, a 16 year-old high school student went to Red Lake High School in Minnesota and shot five more students, a teacher, and a security officer before turning the gun on himself (Speculation arises following Red Lake High School shooting on role of antidepressant medication, 2005). This case brought to the forefront a couple of issues surrounding both childhood depression and the use of medications causing suicidal tendencies, both characteristic of this student (Speculation arises following Red Lake High School shooting on role of antidepressant medication, 2005).

With Columbine wounds still seemingly raw, an incident in Park County, Colorado at Platte Canyon High School resulted in an armed standoff (Illescas et al., 2006). In this case, an unidentified man entered the school, went up to the second floor, and took a classroom hostage. He released all of the males, kept six female hostages, and sexually assaulted some of them (Illescas et al., 2006). After shooting one of the female teenage victims in the head, he turned the gun on himself (Illescas et al., 2006).

Another very high profile school shooting by an adult male perpetrator occurred on October 2, 2006, at a one-room Amish school house in Lancaster County, Pennsylvania (Kasdorf, 2007). In this incident at the West Nickel Mines Amish School, five female students

were murdered, and similar to the above account in Colorado, the adult male then took his own life (Logue, 2008). Unfortunately, this incident accounted for the 19<sup>th</sup> violent death total in Pennsylvania schools from 1992-2006 (Logue, 2008).

The Virginia Tech Shooting on April 16, 2007, is considered one of the deadliest mass shootings by a single attacker in U.S. history (Timeline of high-profile school violence, 2008). Starting around 7:00 a.m., a student at the school, Seung-Hui Cho, carried semi-automatic pistols through the campus and shot dozens of students and professors as he walked by (Winerman, 2009). Including his own suicide, 33 were killed and another 23 wounded during the attack (Timeline of high-profile school violence, 2008).

Littleton, Colorado was the scene of another school shooting on February 23, 2010, only this time at Deer Creek Middle School, where former student Bruco Eastwood, age 32, shot two students (Langman, 2015). Because Eastwood suffered from severe psychosis, he was found not guilty by reason of insanity.

On November 29, 2010, 15-year-old student, Samuel Hengel, held his social studies class of 25 students hostage at Marinette High School, Wisconsin (Davey, 2010). As law enforcement entered the room to halt the standoff, the student took his own life (Davey, 2010).

Nebraska suffered a school shooting at Millard South High School in Omaha on January 5, 2011 (Nebraska: School shooting ends in two deaths, 2011). With no known motive for the shooting, student Robert Butler Jr., 17, opened fire and killed his vice principal and wounded his principal (Nebraska: School shooting ends in two deaths, 2011). The student, who was the son of a police detective, was found dead in his car a mile away from the scene of the school (Nebraska: School shooting ends in two deaths, 2011).

Another school shooting that dominated the public's attention occurred at Sandy Hook Elementary School in Newtown, Connecticut on December 14, 2012 (Schildkraut & Muschert, 2014). First, Adam Lanza killed his mother, Nancy, and before taking his own life, he entered the school and killed 20 first grade students and six staff members, one of which was the school principal (Schildkraut & Muschert, 2014). Sandy Hook stood out to the public because the victims were young and a large number of victims were killed in a very short period of time (Shultz et al., 2013).

A random shooting in Rancho Tehama Reserve, which occurred five years after the Sandy Hook shooting, caused Senator Dianne Feinstein to make a public statement specific to the lack of progress in preventing school shootings (Feinstein statement on Rancho Tehama Reserve shooting, 2017). The gunman, Kevin Janson Neal, 44, randomly began killing people before he arrived at the elementary school (Perez-Pena & Fuller, 2017). Because some heard the gunfire outside prior to Neal entering the building, the school reacted by immediately locking down, which prevented mass casualties inside the school (Perez-Pena & Fuller, 2017).

One of the most recent high-casualty school shootings occurred in Parkland, Florida on February 14, 2018 at Marjory Stoneman Douglas High School (Walker, 2018). The shooter, Nikolaus Cruz, killed 14 and wounded countless others (Walker, 2018). Unlike Sandy Hook, where the majority of the victims were grade school aged, the reaction from the high school students of the Parkland shootings put major pressure on lawmakers to address a variety of issues related to the root of school shootings, such as mental health education and support, expanding background checks for those purchasing weapons, and stronger gun laws (Harrison & Hook, 2018).



Unfortunately, the Parkland shooting was only the first shooting in a series of school shootings in 2018; a year that averaged one event per week (Estepa & Korte, 2018). On May 18, 2018, police officers responded to Santa Fe High School near the Houston, Texas metropolitan area (Daly, 2018). The shooter, 17 year- old student, Dimitrous Pagourtzis, was a student at the school who killed eight students, two teachers, and injured 13 others (Kormann, 2018).

Another recent school shooting occurred on May 25, 2018 in Nobelsville, Indiana, at a middle school (Hassan et al., 2018). A 13-year-old boy shot and injured his teacher and a female student. After asking to be excused during a science test, he returned to the classroom with two handguns and began firing (Hwang et al., 2018).

### **Urban and Rural School Violence Incidents**

There are unique challenges that pertain to law enforcement in both urban and rural settings. Big cities have higher crime rates than rural areas, yet small communities have similar public safety needs. The issues of geography and size create challenges for law enforcement agencies (International Association of Chiefs of Police, 2018). Because rural communities often have fewer resources and fewer officers per capita, the safety needs are often not met in a timely manner. Conversely, urban areas often have to cover more frequent and ongoing issues yet struggle with limited law enforcement and emergency management resources (International Association of Chiefs of Police, 2018). Geography poses another obstacle for rural law enforcement agencies. For example, officers often have to cover large geographical areas on their own and often encounter friends and/or relatives when investigating or responding to calls and crime scenes (International Association of Chiefs of Police, 2018). Access to updated technology and training is another barrier for rural law enforcement and emergency management personnel. Whereas large urban areas utilize new tools such as body cameras and dash board

cameras, those in rural areas lack similar resources and individualized training as was recognized by researchers at Arizona State University (Gaub et al., 2017).

School violence incidents have been occurring since the 1700's. The examples represent urban settings as well as rural settings. A recent study by the Martin Prosperity Institute analyzed geographic and demographic data of communities across the United States that have experienced school shootings. This study confirmed that mass shootings range from large cities to small towns (Boone, 2018).

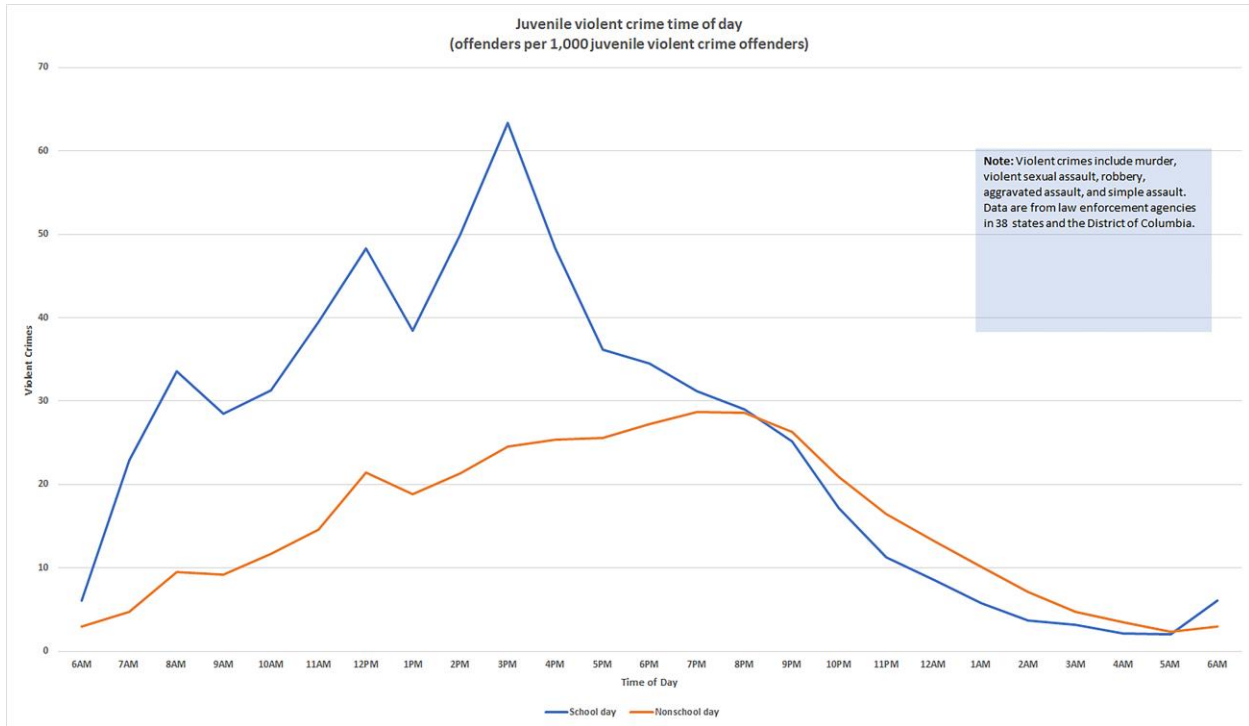
After the shooting at West Liberty-Salem High School in Ohio, President Trump issued the following statement regarding school violence in urban and rural settings: "Guns are easily accessible to kids in urban, suburban, and rural areas. A kid in the inner city or suburbs can get their hands on a gun just as can a kid in a rural setting" (Clark, 2017, p. 1). Given the fact that school violence incidents happen in both urban and rural settings, there is little research to support that perceptions of preparedness by principals is higher in one setting than another.

### **Elementary and Secondary School Violence Incidents**

Like the history of school violence documented in urban and rural settings, elementary schools are not immune to incidents of school violence. Violent crimes among juveniles are becoming a more frequent occurrence (*Statistical Briefing Book: OJJDP*, 2018). As violence within our nation increases, more common violent occurrences with juveniles are projected to carryover and increase in the lower grades of elementary-aged students (Bennett-Johnson, 2004). Even though violent crimes on non-school days and school days are fairly equal, 62% of violent crimes committed by juveniles occur on school days (*Statistical Briefing Book: OJJDP*, 2018).

**Figure 2.2.**

***Juvenile Violent Crime Time of Day*** (*Statistical Briefing Book: OJJDP, 2018*).



With the threat of school violence vulnerable in both elementary and secondary settings, debate about the appropriateness of elementary school students participating in crisis exercises has become a topic of media and policy makers. Yet the National Association of School Psychologists recommends that all schools, regardless of level, be prepared to respond to emergency situations as part of their school safety preparedness and crisis planning (Brock et al., 2011). Elementary schools do tend to be more conservative in their overall approach to instituting some safety measures. For example, in the 2015-16 school year, only 36 percent of elementary schools utilized a school resource officer as a safety measure compared to 65 percent of secondary schools (Blad, 2018). In Kansas, the amount and types of drills do not differentiate in expectations between elementary and secondary schools; hence, the results of this study seek out information on the preparedness of principals at each of these levels.

## **National and State Policy Impacting School Safety**

### **Historical National Policy on School Safety**

Federal legislation regarding school safety as a result of youth crime and drug use emerged as a public concern in the 1970's. The 1974 Juvenile Justice and Delinquency Prevention Act (JJDP A) passed to prevent juvenile crime and focus on rehabilitation of juvenile offenders (Juvenile justice and delinquency prevention act of 1974, 1974). Through this act, the U.S. Department of Justice allowed discipline issues on school campuses—including drug and weapon use—to be addressed in schools through authorized federal programs (Brock et al., 2017).

During the 1980's, President Ronald Regan's time in office, one of the greatest threats to school safety was substance abuse, specifically cocaine, among youth, which prompted the Drug-Free Schools and Communities Act Amendments (DFSCA) (Brock et al., 2017). DFSCA essentially made grants available to local education agencies to develop innovative strategies to combat drug abuse in youth (Drug-Free Schools and Communities Act Amendments of 1989, 1989)

In 1992, the reauthorization of the JJDP A addressed gang issues and gang violence in schools, and two years later the Gun-Free Schools Act of 1994 was authorized (Brock et al., 2017). The Gun-Free Schools Act of 1994 amended the Elementary and Secondary Education Act to include a provision, often referred to as zero tolerance, which expelled students for a school year for possessing a gun, knife, or other weapon on school property (Gun-Free Schools Act of 1993, 1994). In July of 1995, President Bill Clinton signed into law an appropriation of \$482 million dollars for the Safe and Drug-Free Schools and Communities Act (Franco & Klebe, 1995). This money was specified for evidence-based programs to reduce discipline referrals,

provide youth mentoring programs in schools, and other violence and drug prevention programs (Franco & Klebe, 1995). Although a joint effort report in 1999 by the National Center for Educational Statistics (NCES) and the Bureau of Justice Statistics reported a decline from 1993-1997 of nonfatal victimization, rates did not change for many crimes (Kaufman et al., 1999). In fact, the report noted that students felt less safe at school than even a few years prior, and a presence of gangs, alcohol, and drug use on school property had actually increased (Kaufman et al., 1999).

One school shooting in May of 1998 at Thurston High School in Springfield, Oregon occurred in a cafeteria when a student calmly began firing a weapon that killed two and wounded many others (Moskovitz, 1999). This tragedy and others in 1997 and 1998 spurred the Clinton Administration and Congress to direct the Department of Education and Department of Justice to release the report *Early Warning, Timely Response: A Guide to Safe Schools* (Dwyer et al., 1998). Every school in the nation received a copy of this guide, which not only emphasized the need to identify and be aware of early warning signs, but also how to effectively respond to a crisis (Dwyer et al., 1998). The guide also emphasized: “All staff, students, parents, and members of the community must be part of creating a safe school environment...everyone should be prepared to respond appropriately in a crisis situation” (Dwyer et al., 1998, p. 3).

Within two months of this guide being released coupled with the school shooting of West Paducah High School in December of 1997, the Department of Education and Department of Justice released the inaugural *Annual Report on School Safety* (Brock et al., 2017). This report, aimed at annually tracking school crime and violence nationally, began by a joint letter signed by Secretary of Education Dick Riley and Attorney Janet Reno, in which they emphasized the following:

Community Leaders and organizations must be involved in the development and implementation of school safety plans. Active participation from parents, teachers, students, law enforcement, elected officials and business leaders, to name just a few, is needed to help create and maintain schools in which students and educators alike feel safe and secure, and where they can confidently pursue the primary business of schools—education (*Annual Report on School Safety*, 1998, p. 1).

The Clinton Administration also responded with the first White House Conference on School Safety on October 15, 1998 (Portner, 1998). Involving students, parents, and teachers directly impacted by school violence, President Clinton set forth two major objectives of the conference. These objectives included the creation of a federal crisis-intervention team to respond to violence in schools and an increase police presence in schools nationwide (Portner, 1998).

The 1999 shooting at Columbine High School in Littleton, Colorado elicited responses from the Department of Education and the Secret Service, which began to study the “thinking, planning, and pre-attack behaviors of school shootings” (Brock et al., 2017, p. 10). Although the report noted that there is not an accurate or useful profile of a school shooter, there are some warning signs to consider. Of the 37 cases studied, almost all developed a plan in advance as well as shared the plan with someone, and more than half had some sort of motive of revenge (Vossekuil et al., 2001). These findings culminated in the publication of *Threat Assessment in Schools: A Guide to Managing Threatening Situations and to Creating Safe School Climates*, (Fein, 2002). This mandated a process for threat assessment, which identified, assessed, and managed students who could pose a threat of school violence (Fein, 2002).

The Bush administration in the early 2000's continued and expanded on Clinton's school safety initiatives as well as created additional programs. In 2001, the *Secure Our Schools Act* funded security at schools, including metal detectors, lights, and other deterrent methods on school grounds (Secure Our Schools Act, 2000).

Nearly \$559,000,000 was committed by the Bush administration through Project Safe Neighborhoods (PSN), which encouraged state and local governments to submit applications utilizing a comprehensive approach, with measurable outcomes required, to reduce gun violence (Competitive Grant Announcement: Reducing Community Gun Violence : Project Safe Neighborhoods, Fiscal Year 2002, 2004). One component of PSN was Project Sentry, which specified decreasing gun violence in schools. This component gave resources to prosecute those who provided firearms to juveniles (Competitive Grant Announcement: Reducing Community Gun Violence : Project Safe Neighborhoods, Fiscal Year 2002, 2004). Almost simultaneously, in 2003, the Department of Education funded a grant program, *Readiness and Emergency Management for Schools*, to help districts develop emergency response and crisis plans.

Even with all of these monetary grants and supports, the Lancaster, Pennsylvania Amish School shooting in 2006 once again focused national attention on school safety, and President Bush convened the Conference of School Safety in October of that same year (Conference on School Safety, 2006). With input from multiple stakeholders including First Lady Laura Bush, Secretary of Education Margaret Spelling, Attorney General Alberto Gonzales, threat assessment specialists, law enforcement, school officials, and even community members, best practices and lessons learned from previous school violence incidents were discussed (Conference on School Safety, 2006). Unfortunately, the conference did not lead to immediate action and six months after the conference, the Virginia Tech campus shooting killed 33 (Davies, 2008).

Following the Bush Administration, President Barack Obama hosted a group of approximately 150 students, parents, teachers, and policy makers to address bullying at the White House Conference on Bullying Prevention (President and First Lady call for a united effort to address bullying, 2011). The Obama administration also sought to change disciplinary procedures that, in some cases, were disproportionate towards minority students being expelled from school (Blad, 2016). This led to another joint project between the Department of Education and the Department of Justice titled “The Supportive School Discipline Initiative” (Klotz, 2011), which aimed to address a phenomenon called “the school-to-prison-pipeline” as well as change practices in which school discipline became a path to the justice system (Klotz, 2011, p. 30).

While the above endeavor was underway, 26 first grade students and six staff members were killed by a lone gunman at Sandy Hook Elementary School on December 14, 2012 (After Newtown: A Look at School Safety, 2013). President Obama then released a new presidential plan called *Now is the Time* in 2013 in which 15 million dollars was allocated to youth mental health aid and the reduction of gun violence in schools (Ryst et al., 2016). In 2014, The Consolidated Appropriations Act (Public Law 113-76) provided 75 million dollars for the Comprehensive School Safety Initiative (Smith, 2014). This initiative, which was overseen by the National Institute of Justice (NIJ), was to research comprehensive technologies and techniques to enhance school safety (Comprehensive School Safety Initiative Report, 2014). The NIJ has continued to fund school safety initiatives, and in 2017, awarded 42 million dollars to focus on developing new technologies to improve school safety (NIJ Surveys School Safety Technologies Nationwide To Prevent And Respond To Violence, 2017).

Not long after entering his term in the oval office, 17 people were killed at Marjory Stoneman Douglas High School in Parkland, Florida, and President Trump was introduced to the



public's outcry of addressing the issue of school safety. President Trump immediately set forth plans to increase security in schools (Final Report of the Federal Commission on School Safety, 2018). In addition to firearms training for school personnel and proposing expansion for mental health reform, he established a Federal Commission on School Safety chaired by Secretary of Education Betsy DeVos (Final Report of the Federal Commission on School Safety, 2018).

House Republican Bill 4909 "Student, Teachers, and Officers Preventing School Violence Act of 2018" or "STOP School Violence Act of 2018," included some new provisions in dealing with school safety (Cowell & McDonald, 2018). This act stressed the importance of acting on the phrase "see something, say something," encouraged the hiring of military veterans as school resource officers (SRO), and allowed SRO's to make arrests and respond to unauthorized school visitors (Cowell & McDonald, 2018).

The most recent publication is the executive summary from the Federal Commission on School Safety that was convened by President Donald Trump right after the Parkland, Florida shootings. The commission's study involved field visits, listening sessions, and meetings with stakeholders across the country in order to identify the recommendations in the final report. The report includes recommendations under three broad categories: prevention of school violence, protecting schools and mitigating effects of violence, and response and recovery from school violence attacks (Final Report of the Federal Commission on School Safety, 2018). The chapter on protecting and mitigating violence primarily focuses on increasing SRO's in schools and providing staff with annual training. However, the types and amounts are not specified in the report, leaving individual states, like Kansas, to determine the specifics of the federal policy.

## **Kansas Policy**

Kansas policy on school safety proliferates from many of the policies and recommendations at the federal level. In addition, most of the legislative policies are addendums to one of the first state laws specific to school safety, The Kansas School Safety and Security Act of 1995. In this act, the legislature required immediate reporting to law enforcement by any school employee who “knows or has reason to believe that an act has been committed or will be committed at school...” (Suspension or Revocation of Driver’s License or Privilege upon Certain School Safety Violations, 1996).

Most of the laws governing school safety in Kansas have evolved through amending the Kansas School Safety and Security Act and are still current through the most recent legislative session. Policies requiring zero tolerance, or mandatory expulsion of students for weapon possession were added in 2014 (Suspension or Revocation of Driver’s License or Privilege upon Certain School Safety Violations, 1996).

Procedures have also been put into place to suspend the driver’s license or driving privileges of a student that has been found in possession of a weapon, illegal drugs, or was a threat to “serious bodily injury to others” while at school (Suspension or Revocation of Driver’s License or Privilege upon Certain School Safety Violations, 1996, p. 89). The ability for the board of education of any school district or trustees at any community college to employ school resource officers was added to the statute in 2016 (Suspension or Revocation of Driver’s License or Privilege upon Certain School Safety Violations, 1996). This gives campus police officers the same power and authority as law enforcement. Effective in July of 2017, Senate Bill 367 required communities to develop a multi-disciplinary team to provide interventions for juveniles

at-risk of suspension or expulsion when previous intervention was unsuccessful (Amendment to the Juvenile Justice System, 2016).

Garnering much attention in the fall of 2018 was a provision in a statute from the Kansas Personal and Protection Act of 2006 that was added in 2013 which allowed legal gun owners over the age of 21 to carry concealed handguns in public buildings, including state colleges (Kansas Personal and Family Protection Act, 2006). The statute in 2013 provided an exemption for colleges to opt out until July 1, 2018, so they could prepare and implement policies Kansas (Kansas Personal and Family Protection Act, 2018).

Approximately a month after the Marjory Stone Douglas High School shooting and the Stop School Violence Act, Kansas House introduce HB2773, the Kansas Safe and Secure Schools Act, which allocated grant money for a period of one year to fund secure entrances, security technology, or other systems necessary for the safety of school buildings (Kansas Safe and Secure Schools Act, 2018).

In mid-July of 2018, Governor Jeff Colyer and the Kansas State Fire Marshal, Doug Jorgensen, sent a letter to all Kansas superintendents and principals issuing “a State-Wide Variance of the Kansas Fire Prevention Code, K.A.R. 22-18-2(a)” (Colyer & Jorgensen, 2018, p. 1). The provision, which exempted community colleges, colleges, and universities from responding to the new legislative requirement, gave districts less than one month to implement and mandated that a total of 16 emergency preparedness drills be conducted during a school year:

...and to prescribe the manner in which such emergency preparedness drills are to be conducted: Provided, that such emergency preparedness drills shall include at least: (1) Four fire drills; (2) three tornado drills conducted pursuant to the tornado procedures

established by administrators of public and private schools and educational institutions, except community colleges, colleges and universities and subject to approval by the state fire marshal; and (3) nine crisis drills that shall include, but not be limited to, intruder response drills and lockdown drills (Colyer & Jorgensen, 2018, p. 1).

According to a February report in *The Wichita Eagle*, 16 drills per school year ended up being an average of one drill every 10 days (Shorman, 2019). This mandate in increased drill requirement was based on reactionary measures from school shootings in 2018, and caused questions to be raised from school superintendents and education leaders regarding the effectiveness of this amount of required drills (Shorman, 2019).

### ***Kansas School Safety Standards***

Another measure, House Substitute for KS SB109 (2018) by Committee on Appropriations, included language that required the Kansas State Board of Education to develop standards to make all public schools and attendance centers in the state safe and secure (KS SB109, 2018). On December 18, 2018, the Kansas State Board of Education adopted nine standards, two of which included required annual training for staff and students in reacting to cases of emergency and conducting crisis drills. The ninth standard pertains only to school districts which choose to implement a firearm safety program and curriculum for students, so this standard will not be included in this research study. These recently adopted standards were enacted into law July 2018 and specify the expectations for schools and districts to comply and move assuredly towards safe and secure environments. In addition, because the standards were created out of an appropriations bill, school districts can only be held accountable for their implementation when they are using grant monies allotted from the state. According to Susan J. McMahan, co-author of the safety standards, there are no grant funds expected for the next fiscal

year. If monies do become available, then any money received from districts must support one of the standards.

There are not specific national or federal standards on school safety. However, the Final Report of the Federal Commission on School Safety (2018) set forth recommendations of funding school safety through state governments (Final Report of the Federal Commission on School Safety, 2018). This report provides recommended funding for training, security measures, and outlines plans to address and respond to school shootings (Kansas Association of School Boards, 2018).

The eight standards adopted by Kansas in 2018 are summarized as follows. A full copy of the approved standards is provided in Appendix A.

***Standard 1:*** School buildings must be safe and secure, including doors, windows, and structural integrity. Local law enforcement and local emergency management will conduct reviews and evaluate infrastructure integrity.

***Standard 2:*** School districts will add or enhance security technology, such as cameras, locks, and panic buttons. Appropriate staff will be trained annually involving security technology.

***Standard 3:*** School districts will provide a communication system between the district, law enforcement, and first responders as well as a process for districts to contact law enforcement. This system requires testing two times a school year.

***Standard 4:*** School districts will create procedures for notifying individuals, such as parents and community members, during emergencies.

***Standard 5:*** Crisis plans must be up to date, in place, and approved by the local board of education. The plan specifies procedures for

facility use as well as specific procedures during and after an emergency.

**Standard 6:** Annual emergency training will be provided by school districts to both students and staff.

**Standard 7:** Crisis drills shall be conducted to ensure procedures are working.

**Standard 8:** Crisis plans should be reviewed and evaluated annually by law enforcement prior to board approval. Local approved plans will be submitted to the Kansas State Board of Education for approval.

**Standard 9:** If a school district chooses to implement a firearm safety program, the program curriculum must meet the following criteria:

Grades K-5 must be an evidence-based youth fire arms safety program

Grades 6-12 must be an evidence-based youth firearms safety program, OR “hunters Education in our Schools Program” offered by the Kansas Department of Wildlife, Parks, and Tourism (Malafronte, 2018)

These standards are cross walked (Appendix B) and provide a basis for aligning with the survey questions completed by Kansas public school principals in this study. When thinking of educational standards, standards are developed first followed by implementation plans that support and address the standards. In this situation, the Kansas Legislature passed the law to mandate more crisis drills and then gave the Kansas State Department of Education a year to develop the safety standards.

## **Literature Review Summary**

When other disasters, specifically fires and tornadoes, have negatively impacted the safety and lives of students, immediate implementation of drill and preparation has been taken. As a result, the number of injuries and fatalities has greatly diminished. School violence has occurred since the beginning of established school systems in the United States. These events began in the early 1700's and continue to current day. Yet, a national response to addressing safe and secure school procedures through specified crisis drills and other mechanisms remains to be lacking as a focal point for legislation and funding.

After almost every catastrophic event since Columbine, efforts have been made to create policy to diminish the number of school shootings. Yet, unlike the policy that affected school safety and preparedness surrounding school fires and tornadoes, school shootings elicit more emotional response from communities and the nation.

In 2018, Kansas implemented a policy requiring more drills as well as drafted safe and secure school standards. The policy requiring the increased number of drills has been addressed in both the 2018 and the 2019 Legislative session. The standards adopted are currently being rolled out to schools across the state with implementation effective July 1, 2019. There were no major changes to policies governing the school safety standards or drills during the 2020 legislative session. Hence, to better understand the perceptions of K-12 principals about the factors that contribute to safe and secure schools, including increased practice drills, this research study has potential to affect future policy, resource allocation, and identify needed support and implementation criteria to help ensure the security and safety of public schools in Kansas.

## **Chapter 3 - Methodology**

This chapter will explain the methodology of this survey design research study as well as the approach to data collection and analysis. The purpose of this study is to measure Kansas K-12 principals' perception of the factors that contribute to school safety preparedness; incorporating the expectations outlined in the Safe and Secure School Standards adopted by the Kansas legislature in 2019. This study will also inform the effectiveness of the 2018 appropriations substitute bill requiring 16 emergency preparedness drills as well as the update to this bill in July 2019, that reduced the requirement down to nine emergency preparedness drills. In addition, the study will examine any differences between urban and rural settings and the perceptions of elementary and secondary level principals.

### **Overview of the Study**

Prior to the 2018-2019 school year, Kansas did not have any comprehensive approach to safe and secure schools other than documented practice of tornado and fire drills. Historically, the number of reported deaths and injuries from fire and tornado incidents have been reduced because of imposed practice drills. In 2018, prior to the start of the school year, Kansas superintendents were informed that a total of 16 emergency preparedness drills were expected to be conducted during the school year. Nine of the drills were mandated to be crisis drills, four for fire (reduced from twelve) and tornado (remained at three). The only specifications to the new



bill were that drills had to be conducted during the school day, and there could be no more than a five-minute warning for the drill. In addition, almost in reverse order, the legislature also mandated the Kansas State Department of Education to draft and adopt standards to address safe and secure schools. These standards were approved at the December 2018, Kansas State Board of Education Meeting (Hill & Porter, 2018).

In 2019, Kansas Governor Laura Kelly signed another change of required drills into law: four fire, two tornado, and three crisis drills for a total of nine drills per school year (Fire Marshal; Power and Duties; Rules and Regulations., 2018). Neither of these mandates utilized a system of evaluation in regard to perception of school preparedness around safety and crisis drills.

Children spend a large portion of their day at school, so whether a small scale or large scale crisis occurs before, during, after, or even out of school, schools play a critical role in readiness and preparation (Murray et al., 2008). Mass shootings can and do occur in both urban and rural settings, and preparation is the key for all levels of response (Vernon, 2010). This study seeks to determine the perceptions of Kansas K-12 principals about the factors that contribute to safe and secure schools as outlined in the new safe and secure school standards. The research study will also determine the perceptions of principals related to the emergency preparedness requirements and drills mandated in Kansas schools and the effectiveness of these drills on school safety and preparedness.

### ***Research Question and Hypotheses***

The following research question will guide the study:

Research question: What is the perception of K-12 Kansas principals of the factors contributing to school safety preparedness outlined in the Safe and Secure School Standards?

## **Hypothesis**

*Null Hypothesis #1. There is no significant difference between high school and elementary principals' perceptions of factors contributing to school safety preparedness.*

*Null Hypothesis #2. There is no significant difference between urban and rural school principal perceptions of factors contributing to school safety preparedness.*

*Null Hypothesis #3. There is no significant difference between the number of safety drills and the perceived preparedness of Kansas K-12 school principals.*

## **Research Design**

The design of this study is a quantitative survey study investigating the perceptions of Kansas school principals regarding the factors contributing to school safety preparedness and the increased number of safety drills. Utilizing primarily quantitative survey data, with well-developed probing questions, can provide a deeper understanding of the research problem (Creswell, 2015). The survey design will collect quantitative data from survey questions along with open-ended questions to probe the understanding of principal perceptions and an opportunity for deeper responses and clarification of issues important to safe and secure schools in Kansas (Creswell, 2015).

Utilizing the survey method from the population of principals in the state is a tool for learning about the attitudes and resources that might be utilized to inform local decisions as well as state policy regarding crisis drills and effective approaches to safe and secure schools (Dillman et al., 2014). Dillman (2014) also notes, when conducted correctly, a survey can “allow one to generalize results with great precision” (p. 398).

In this study, a previously developed survey for the purpose of examining school preparedness for mass casualty incidents was administered using a sample of superintendents from across the United States in 2003 (Liggin et al., 2004). This survey is reliable and valid as it

was first utilized to study mass-casualty preparedness in schools in Arkansas and then was used by the National Center for Education Statistics (NCES) to survey superintendents across the United States. Because of the school shooting and terroristic events that happened in the early 2000's, the medical field felt a study to document the preparedness of public schools in the United States for the prevention of and the response to a mass-casualty event was warranted (Liggin et al., 2004). This study was conducted by surveying 3,670 school superintendents that were randomly selected from a list of districts from the NCES of the US Department of Education (Liggin et al., 2004). The study had a response rate of 58.2% and the conclusion of the study revealed important deficiencies in school emergency planning as well as indicated that rural districts were less prepared than urban districts (Liggin et al., 2004). With permission from the survey authors, the survey conducted with superintendents is the survey that was then used for this research study with Kansas school principals, and was slightly modified to align with the Kansas Safe and Secure Schools Standards (Appendix B).

School violence elicits response from multiple facets of a community, including law enforcement, emergency medical services (EMS), and hospitals. The survey used and adapted for this research study examined the preparedness for prevention and response at public schools in Arkansas (Liggin et al., 2004). The survey, which was reviewed and exempted by the University of Arkansas for Medical Sciences Institutional Review Board, was mailed to superintendents of all 307 public schools in Arkansas in August of 2003 and a follow-up survey was mailed out again in September to all non-responders. Seventy-four percent of surveys were returned. The findings of the study were that although most schools have a plan for responding to an event, the findings highlighted a need for continued planning and preparation (Liggin et al., 2004).

After the Arkansas study, the survey was expanded to document the preparedness of public schools in the United States (Graham et al., 2006). The survey was mailed to 3670 public school superintendents randomly chosen from a list from the NCES in January of 2004 with a follow-up survey to non-respondents in May, 2004 (Graham et al., 2006). The response rate, which was 58.2%, yielded similar results to the Arkansas survey study and further stated that rural districts were less prepared for school violence incidents than urban districts (Graham et al., 2006).

The survey from the above two examples, which included surveying public school superintendents in Arkansas and then nationally by the National Center for Education Statistics will be utilized in this research study to determine the perception of preparedness of Kansas public-school principals. The cited study surveyed superintendents instead of principals; however, the researcher adapted the survey questions to reflect the position that principals are the leaders in the building conducting the drills and implementing the practices regarding school safety. Both the superintendent and the principal assume key leadership responsibilities in orchestrating school safety expectations and measures; therefore, the researcher determined the district vs. building role provided a basis for effective questions important to the study's purpose. The methods of the study included utilizing the National Preparedness Survey focused on school preparedness for mass casualty incidents that was originally piloted using a sample of Arkansas school districts in 2003 (Graham et al., 2006). The National Preparedness Survey was revised and used a random sample generator. The survey was mailed out to 3670 school districts, excluding vocational-technical, alternative, and special education school district superintendents (Graham et al., 2006). A second mailing was sent out one month later to remind any potential non-responders of the opportunity to participate in the study. Survey data, including questions

that identified urban and rural school populations, was entered into an Excel spreadsheet, and Statistical Product and Service Solutions (SPSS) 12.0 software was utilized to obtain summary statistics (Graham et al., 2006).

Some of the limitations of the original study included factors inherent to most survey research. Some questions could be interpreted by the responder different than the original intention of item writers. In addition, superintendents who have an interest in crisis planning or have more formal crisis activities in their districts may be more likely to respond to the survey, which in turn could affect the perception of preparedness being represented in the results from those who have a less vested interest in the topic (Graham et al., 2006).

To gather data from Kansas school principals and assign quantitative measures, the data was collected via this adapted, vetted survey. The instrument used to distribute the survey to public school K-12 Kansas principals was Qualtrics, an online web-based tool that allows for the distribution of surveys as well as a way to use quantitative data to gather numbers as it relates to people and their perceptions (Christensen, 2015). Survey questions were modified to ensure alignment with the Kansas Safe and Secure School Standards and two probing survey questions were added to the survey to gather additional perceptions of K-12 principals while maintaining integrity to the intent of the original survey. The survey study was appropriate as it examined differences in attitudes between variables such as crisis drills and implementation of the school safety standards and the differences in the perceived perceptions of school safety preparedness (Fraenkel, 2006). The variables focused on the perception of preparedness of school principals from urban versus rural districts as well as elementary versus secondary principals. This information served to inform both local and state-wide practice and potential legislation utilizing

critical information about the perception of principals in determining school safety preparedness (Fraenkel, 2006).

### **Instrumentation**

The questionnaire utilized a survey instrument to offer respondents the opportunity to mark answers as well as provide short responses to gather data—close-ended and open-ended questions simultaneously (Dillman, 2014). The electronic survey format was selected as a means to accurately reach a large population in an efficient time frame (Dillman, 2014).

In order to ensure validity, research questions were formulated in writing and then converted into hypothesis and null hypothesis (Fraenkel, 2006). A test pilot of fifteen was utilized to test the validity and reliability of the survey. Those in the test pilot included principals from non-public schools, superintendents, teachers, and two school board members.

The survey instrument consisted of 35 questions (see Appendix C) to measure the perception of school safety and preparedness of school principals regarding the factors outlined in the safe and secure schools' standards and the experience of conducting increased preparedness crisis drills during recent academic years. The survey was first developed using a sample of Arkansas school districts in 2003 (Graham et al., 2006). The survey was again revised and mailed to superintendents of a random sample of public-school districts in the United States from a list from the NCES (Graham et al., 2006). For this study, and with the express permission of the authors of the original study (See Appendix B), the survey was revised slightly to align with the Kansas Standards of School Safety.

The survey included the collection of demographic variables at the beginning of the survey to disaggregate data by urban and rural indicators as well as by elementary and secondary principals. The survey was estimated to take between fifteen to twenty minutes to complete.

Individual surveys were administered to gauge perceptions of K-12 principals. Prior to formal administration, a small sample of participants were administered the survey to test whether the instrument measured what it was intended to measure. This sample included retired administrators, school principals who volunteered from private schools, and administrators from a local post-secondary institution, and other relevant personnel who made decisions regarding school safety initiatives.

### **Population and Sample**

All accredited public K-12 schools in Kansas are required to practice preparedness drills, therefore, the study included sending out the survey to all accredited public Kansas K-12 principals as listed in the directory of KSDE. According to Fraenkel et al., (2006), when the sample is large “this method is the best way yet devised to obtain a sample representative of the population of interest” (p. 94). The researcher first collected the current population of all licensed K-12 principals in the state of Kansas from the KSDE directory. This list is updated yearly from the KSDE and is public information. According to the 2019-2020 Unified School District Principal’s directory, there are 1345 principals assigned to public schools. However, 53 of these principals served in the capacity of principal of multiple buildings, therefore reducing the total number of public-school principals to 1312. United School Administrators of Kansas (USA Kansas) was notified about the study and agreed to send out information to all current principals an explanation of the study; the purpose of this was to make principals aware of a potential study so that an email with a survey would not be dismissed or deleted. From this list, an email was sent to all 1312 principals with an explanation of the survey (See Appendix D) and a link to the survey using the Qualtrics survey tool. Permission to use Qualtrics was granted through Kansas State University, which allows the use of Qualtrics by staff and students doing research studies

approved through the university. Because this online survey focused on Kansas school principals, who all have verified email addresses through the KSDE, the online survey format provided an effective and efficient tool to distribute and retrieve information requested (Dillman, 2014). All responses remained anonymous and no identifying school district information was utilized. After three weeks, a follow-up email was sent to all principals as a reminder in the event the first survey was not completed. Those who completed the survey through the first email link were not able to access the second link.

### **Data Collection**

The researcher filed an application with the Institutional Review Board (IRB) at Kansas State University and after approval was received, data collection began. Informed consent was obtained electronically, and after the participant agreed to the conditions of informed consent, the participant was able to access the online survey. As per an IRB review and regulatory perspective, the eConsent focused on “protecting the human subject and ensuring that each participant is offered a comprehensive and informative consent process” (Blasingim & Sather, 2018, p. 3). Surveys were conducted with both elementary and secondary Kansas school principals. Obtaining consent from the respondent was the precursor for survey access. Consent was given by the participant clicking a box that indicated he/she had read the consent information and agreed to participate in the survey study before being allowed to answer questions. The only demographic data collected related to the size of the school district and the type of school to align the school with an urban or rural setting and an elementary or secondary principal.

### **Data Analysis**



The researcher used Excel and analysis of variance, ANOVA, a statistical method for analysis. Utilizing ANOVA helped determine whether there were any statistically significant differences between the means of the independent groups. Data from the Qualtrics surveys were downloaded into Excel, which allowed for sorting the data into distinct components and aided in the ability to disseminate the significance using a 0.05 level to conclude if a difference exists (Meintrup & Goos, 2016).

To gauge perceptions of preparedness, every survey response was dichotomized to reflect those that were prepared and unprepared. Strongly agree and agree were given a (1) for prepared and a (0) was assigned to unsure, disagree, or strongly disagree.

**Table 3.1.**  
*Hypothesis*

Dependent Variable:	Perception of Preparedness
<i>Independent Variable Hypothesis 1:</i>	School Type
<i>Independent Variable Hypothesis 2:</i>	Elementary
	Secondary
<i>Independent Variable Hypothesis 3:</i>	School Location
	Urban
	Rural
	Number of Drills

### Summary

It is imperative for students and staff to feel safe for learning to occur. With high profile school shootings, many states, including Kansas, have mandated legislation to improve school safety. In late July, the Kansas Legislature substituted HB109, which increased the number of emergency preparedness drills to a total of 16 (KS SB109, 2018, p. 109). Section 76 of that same

bill stipulated that Safe and Secure School Standards be developed by the KSBOE and implemented by June 30, 2019. In between the new standards being rolled out, new legislation emerged in 2019 that again changed the requirements of drills from sixteen to nine. There is limited data as to whether increasing emergency preparedness drills increases the perception of safety and preparedness of schools for crisis events. There is limited data as to whether the outlined standards provide meaningful guidance for principals who lead and advocate for school preparedness.

This study utilized public school principals to evaluate perceptions of safe and secure schools and the effectiveness of conducting drills to increase school preparedness. In addition, perceptions were studied in relation to differences between urban principals and rural principals, as defined by the U.S. Census Bureau. As indicated in the literature review, acts of school violence occur in both urban and rural settings. In Kansas, rural districts may or may not have access to the resources outlined in the standards. This study examined the statistical similarities and/or differences in perceptions of schools located in both urban and rural communities.

The study also collected data regarding perceptions of elementary principals and secondary principals. With the passing of the new law, concern exists about the developmentally appropriateness of practicing drills with elementary-aged students. However, the literature review outlined that school violence occurs in both elementary and secondary settings. This study helped determine if there is a correlation between the perception of elementary and secondary school principals regarding preparedness.

A survey study research design was chosen to provide data with which to study the outlined differences and variables. School principals provide the best information about school

level response and readiness. The survey process allowed for statistical representation and analysis of the data.

## Chapter 4 - Results

This chapter contains the results of the survey study conducted to answer the research question and hypothesis:

Research question: What is the perception of K-12 Kansas principals of the factors contributing to school safety preparedness outlined in the Safe and Secure School Standards?

### Hypothesis

*Null Hypothesis #1. There is no significant differences between high school and elementary principals' perceptions of factors contributing to school safety preparedness.*

*Null Hypothesis #2. There is no significant differences between urban and rural school principal perceptions of factors contributing to school safety preparedness.*

*Null Hypothesis #3. There is no significant differences between the number of safety drills and the perceived preparedness of Kansas K-12 school principals.*

This chapter also includes discussion on the analysis conducted and how the analysis ties back to the research question and hypothesis.

### Demographic Analysis

Using Qualtrics, surveys were emailed to 1,312 Kansas public school principals as obtained on the directory listserv through the KSDE. It is required for principals in the state of Kansas to have a K-12 Building Leadership License. This is important to note because the perceptions measured in this research are with principals who have the same licensure qualifications no matter the grade level in which they lead. Twenty-four of the emails bounced back, resulting in 1,213 surveys distributed. Of those surveys, 571 were started. Forty-two participants started the survey but did not complete the survey. The total number of completed responses was 529 resulting in a 44% completion rate.

The results of participants identifying as either a secondary principal or an elementary principal revealed there are more elementary school principals who responded to the survey than secondary principals. This data is consistent with the KSDE listserv whereby there are more elementary than secondary principals. For example, urban districts have multiple elementary schools that feed into fewer middle schools and high schools. In addition, sixteen responses of “other” could not be counted in the grand total of this question as the information they provided came out in the form of a date. Elementary principals comprised 237 of the responses and secondary principals comprised 168 responses (See Table 4.1). It should be noted that 108 principals indicated they govern a K-12 school population. In the findings of hypothesis 1 do not include these 108 principals as the research conducted was specific to either elementary or secondary populations.

**Table 4.1.**  
*Elementary vs. Secondary Population Breakdown*

<b>Row Labels</b>	<b>Count of Q2</b>
Elementary (K-2, K-3, K-4, K-5, K-6, 5-6)	237
K-12	108
Secondary (5-8, 5-12, 6-8, 6-12, 7-8, 7-12, 9-12)	168
<b>Grand Total</b>	<b>513</b>

The total number of respondents identifying as either urban or rural populations showed urban populations with a slightly higher response rate. Rural respondents (rural representing less than 2,400 people) resulted in a total of 241 responses while urban respondents totaled 288 as

shown in Table 4.2. In this study, those principals who identify as urban and urban cluster are classified as urban.

**Table 4.2.**  
*Urban vs. Rural Population Breakdown*

<b>Row Labels</b>	<b>Count of Q1</b>
Rural (Less than 2,500 people)	241
Urban (50,000 or more people)	88
Urban Cluster (At least 2,500 and less than 50,000 people)	200
<b>Grand Total</b>	<b>529</b>

*Note.* The definition of rural, urban, and urban clusters is from the U.S. Census Bureau.

Although conducting drills is a requirement of Kansas statute, the survey results demonstrated in Table 4.3 show that 257 principals had not conducted in a drill in the last 6 months. One hundred sixty-three principals had conducted at least one drill, and 126 principals had conducted at least two drills in the past six months.

**Table 4.3.**  
*Breakdown Representing Number of Drills Conducted in the Last Six Months*

<b>Row Labels</b>	<b>Count of Q1</b>
0 Drills	257
1 Drill	163
2 Drills	53
4 or more Drills	44
<b>Total 1 or more Drills</b>	<b>289</b>

## **ANOVA Analysis**

Utilizing the Kansas School Safety Standards adopted in 2018, the survey questions were first cross-walked with the standards (See Appendix B). The results of the survey questions were used to compare the means for each question. These results were utilized to gauge public school principal perceptions of preparedness.

*Hypothesis 1. There is no significant difference between high school and elementary principals' perceptions of factors contributing to school safety preparedness.*

Utilizing the ANOVA test of significance to compare the means for each question, the elementary sample contains 237 respondents ranging from varying grade configurations of Kindergarten through 6<sup>th</sup> grade. The secondary sample comprised of 168 respondents. The complete table with the ANOVA breakdowns for each question is fully displayed in Appendix F. The complete table provides meaningful data, but can distract from the two focus questions discussed in depth with this hypothesis. When looking at the complete table in Appendix F, there are only two questions that are statistically different (See Table 4.5). Neither of the two questions make up a major part of the standards when reviewed as a whole (See Appendix B).

Only two of the survey questions showed statistically significant differences between elementary and secondary principals. The measure was an index reflecting the importance of perception of preparedness, and lower values indicated a perception of feeling less prepared. In utilizing student identification badges, elementary principals averaged a statistically significant lower value on this question (0.13) than did secondary principals (0.45) (See Table 4.4). The reverse was true of the survey question regarding off campus/site evacuation drills as an effective preparation tool for a school crisis event. Here, elementary principals (0.37) averaged a higher

perception of preparedness over secondary principals (0.24) (See Table 4.4). When looking at the specific survey questions and how these questions cross walk with the Kansas Safe and Secure School Standards, none of the nine standards were adversely affected by the discrepancies aforementioned. Therefore, Null Hypothesis One was accepted.



**Table 4.4.*****Survey Questions Showing Significant Differences Between Elementary and Secondary Principals***

*Gray cell signals statistically significant difference – ALPHA of 0.05					
Preparedness Measure	Elementary (K-2, K-3, K-4, K-5, K-6, 5-6)	Secondary (5-8, 5-12, 6-8, 6-12, 7-8, 7-12, 9-12)	MIN.	MAX.	P-Value
My school utilizes some form of student identification card or badge	0.13	0.45	0.00	1.0	0.000
I feel the off campus/site evacuation drills have adequately prepared me for a school crisis event.	0.37	0.24	0.0	1.0	0.008
Count	237	168			

*Hypothesis 2. There is no significant difference between urban and rural school principal perceptions of factors contributing to school safety preparedness.*

Table 4.5, also using ANOVA test of significance to compare means for each measure, represents findings for urban and rural principals' perceptions of preparedness regarding school safety. There were 241 principals identified as rural and 288 identified as being a principal in an urban area. Increased instances of statistically significant differences occurred in these findings of perception of preparedness as compared to elementary and secondary principals.

Table 4.5 only represents the areas in which statistically significant differences were aligned using ANOVA. The entire table that contains all of the questions and results from running ANOVA can be found in Appendix G. Out of the 35 survey questions analyzed, six of the first seven survey questions revealed urban principals felt more prepared than rural principals. The first two areas in Table 4.5 specifically address plans in place. Urban principals (.84) reported a statistically significant difference ( $p = 0.025$ ) over rural principals (0.77) in having a written plan for prevention of violence incidents in their schools. Urban schools (0.93) also were statistically significant ( $p = 0.009$ ) in having an up-to-date and board approved crisis plan in place compared to rural school principals (0.86).

Another area of significant difference is reflected in the area of identification badges for staff and students. This aligns to standard 5 in the cross walk of standards and questions (See Appendix B). Rural school principals had a lower perception of preparedness in both staff identification badges (0.58) and student identification badges (0.14). Conversely, urban school principals utilized staff (0.90) and student (0.31) identification badges at a higher rate. Access to resources was another area in which urban principals (0.75) were statistically significantly higher

than rural principals (0.67). These resources included but were not limited to planning for in-school counseling and mental health professionals in the event of a mass casualty incident.

Building infrastructure, including secured doors and windows, was the final area in which urban principals (0.79) were statistically significantly greater than rural principals (0.71) (See Table 4.5). When looking at the specific questions and how these questions cross walk with the Kansas Safe and Secure School Standards, only two standards of the nine total standards are affected by the discrepancies. Therefore, the Null Hypothesis Two was accepted.

**Table 4.5.*****Survey Questions Showing Statistical Differences Between Rural and Urban Principals***

Preparedness Measure	Rural	Urban	MIN.	MAX.	P-Value
My school has a written plan for the prevention of mass casualty incidents at my school (e.g. a terrorist incident, a bombing, and shooting, or a biological organism release)	0.77	0.84	0.0	1.0	0.025
My school district has an up-to-date school safety and security (crisis) plan approved by the local board of education.	0.86	0.93	0.0	1.0	0.009
My school has restricted vehicular access to school grounds (e.g. limited entrances and exits, specified parking requirements).	0.38	0.48	0.0	1.0	0.0024
My school has a parent reunification form or a student release form (in the event of emergency pick-up)	0.35	0.49	0.0	1.0	0.001
My school utilizes some form of student identification card or badge	0.14	0.31	0.0	1.0	0.000
My school utilizes some form of staff identification card or badge	0.58	0.90	0.0	1.0	0.000

\*Gray cell signals statistically significant difference – ALPHA of 0.05

A plan to provide in-school counseling or access to available resources for students, including mental health professionals, is included in my school's written plan for a mass-casualty or school violence incident.	0.67	0.75	0.0	1.0	0.037
My school building's infrastructure is safe and secure, including secured doors (interior and exterior) and windows.	0.71	0.79	0.0	1.0	0.035
Count	241	288			

*Hypothesis 3. There is no significant difference between the number of safety drills and the perceived preparedness of Kansas K-12 school principals.*

Table 4.6 uses the ANOVA test to analyze how the independent variable, number of drills, compares to the dependent variable, perception of preparedness. In this study, the independent variable is divided into two nominal variables: zero drills and one or more drills. There were 289 principals who reported practicing one or more drills and 257 principals who reported practicing zero drills.

The data from this ANOVA test reveals in Table 4.6 that there are only two areas in which there is not a statistically significant difference in the data. The entire data table can be referenced in Appendix H, which visually represents that all but two of the questions indicate a statistically significant difference. All of the survey questions were cross walked with the Kansas Safe and Secure School Standards (See Appendix B). Table 4.6 indicates that all but two of the questions show significant differences, therefore, indicating that most of the survey questions impact the standards.

The first data point in which there is not a statistically significant difference is *I, the school principal, have received training in implementing a safety plan*. The other area is in the response to the survey question regarding the change in the required amount of drills in 2019-20 and the impact it had on school safety preparedness. Table 4.6 illustrates preparedness for school safety was higher for those principals who did at least one drill (0.25) than those principals who had conducted zero drills (0.19) with a p value of 0.054. When looking at the specific questions and how these questions cross walk with the Kansas Safe and Secure School Standards, eight of the standards are statistically significant in the discrepancies. Therefore, the Null Hypothesis Three was rejected.

**Table 4.6.**  
*Survey Questions Representing No Statistical Differences in Number of Drills*

Preparedness Measure	1 or more drills	Zero Drills	MIN.	MAX.	P-Value
I, the school principal, have received training in implementing a safety plan.	0.88	0.77	0.0	1.0	0.466
The change in the required amount of drills for schools in 2019-20 specific to fire safety (decreased amount from 2018-19), tornadoes (decreased amount from 2018-19), and other crisis incidents changed the preparedness of my school.	0.25	0.19	0.0	1.0	0.054
Count	289	257			

The above analysis of all three hypothesis looks specifically at the results of the ANOVA test to compare the means for each question. Chapter 5 will provide a closer look at the data that reveals insight into the survey responses of K-12 principals and the Kansas Safe and Secure School Standards.

## **Summary**

This chapter contains the results of the analysis, connects the analysis back to each of the research hypothesis, and utilizes ANOVA to determine significant statistical differences regarding perceptions of school safety preparedness amongst Kansas school principals.

The data supports two of the research hypotheses and rejects the third. Of only two significantly statistical differences regarding elementary and secondary principal perceptions of school safety preparedness, neither of these discrepancies tie directly to major components of the Kansas School Safety Standards, which will be discussed in Chapter 5. When looking at the perceptions of school safety preparedness between urban and rural Kansas principals, there is an increase in discrepancies and two of the nine Kansas Safe and Secure School Standards favor a higher perception of school safety preparedness by urban principals. However, no other survey questions aligned to the other seven standards revealed any discrepancy, and the hypothesis remains accepted. Conversely with the third hypothesis, all but two of the survey questions had statistically significant differences, and every one of the standards aligned to the survey questions were impacted. Additionally, the data supported that principals who conducted more crisis drills had higher perceptions of school safety preparedness. Chapter 5 includes an in-depth discussion regarding the three hypothesis and the research question.



## **Chapter 5 - Summary**

### ***Purpose of the Study***

The safety and welfare of students has been a priority of school leaders for decades, yet school leaders such as principals have lacked comprehensive guidance around school safety preparedness (Armenta & Stader, 2011). The purpose of this study was to measure Kansas K-12 principals' perception of the factors that contribute to school safety preparedness; incorporating the expectations outlined in the Safe and Secure School Standards adopted by the Kansas legislature in 2019. This study also informed the effectiveness of the 2018 appropriations substitute bill requiring 16 emergency preparedness drills as well as the update to this bill in July 2019 that reduced the requirement down to nine emergency preparedness drills. In addition, the study examined any differences in perception between principals in urban and rural settings as well the preparedness perceptions of elementary and secondary level principals.

The findings of this study may provide information for Kansas school districts, the KSDE, and Kansas lawmakers as they work to improve prevention of school violence and set governing policy in schools.

### ***Overview of the Methodology***

The data utilized in this study was obtained through an online survey conducted of Kansas public school principals using Qualtrics to collect the data. The list of public-school principals was obtained through the KSDE website. Participation was voluntary. All data was sorted in Excel and then analyzed through analysis of variance (ANOVA) to analyze the differences among group means for each hypothesis.

The quantitative survey utilized a Likert scale to examine the perceived preparedness of safety of principals outlined in the Kansas Safe and Secure School Standards. A previously developed survey for the purpose of school preparedness for mass casualty incidents used by the medical field to document the preparedness of public schools in the United States for the prevention of and the response to a mass casualty event served as the basis for the survey conducted in this research study. The original study was conducted by surveying superintendents from across the United States. This same survey was adapted by the researcher to use in this study for the purpose of investigating the perceptions of Kansas school principals regarding the factors contributing to school safety preparedness, including the increased number of safety drills. The survey questions were modified to ensure alignment with the Kansas Safe and Secure School Standards while maintaining integrity to the original survey. The variables of the survey focused on the perception of Kansas public school principals from elementary versus secondary schools as well as urban versus rural schools. The number of drills was also utilized as a variable to measure perception of preparedness.

### ***Theoretical Relationship to the Findings***

Two theoretical perspectives were utilized for this study. The first, Maslow's theory of hierarchy of needs, is applied to basic learning principals. Maslow's theory notes that certain basic needs must be met before higher level needs can be addressed; human behavior is motivated by needs that have yet to be satisfied. Safety is one of the basic needs that Maslow's theory identifies as must being met before higher needs such as self-esteem, academic achievement, and creativity can occur (Maslow, 1948). As will be explained later in this chapter, the Kansas Safe and Secure School Standards address many of the basic needs of safety and the differences of the survey questions to these standards is provided in Appendix B. For example,

standard one of the Kansas Safe and Secure School Standards (See Appendix A) addresses the need for a secure infrastructure including secure interior and exterior doors and windows.

Building infrastructure security is a safety measure that directly ties to Maslow's principle of the need of safety. If students and staff have a secure infrastructure that helps keep the building safe, students can focus on learning.

Standard two of the Kansas Safe and Secure Schools Standards also aligns with Maslow's theory. Enhanced security technology systems, such as security cameras and integrated alarms, are additional mechanisms that create safer school environments, allowing for the basic needs of students and staff to be met. Being able to easily identify staff and students using identification badges in standard five further supports Maslow's theory.

The second theory utilized in this study is CBT. The cognitive-behavioral theoretical framework links thoughts, emotions, and behaviors in a continuous loop based on experiences (N. & Thyer, Bruce A., 2012). When students practice safety and crisis drills, they have distinct experiences that allow them to process and manage information and then use the experiences and information to direct emotions and behaviors that best fit their needs.

The theory of CBT can be directly associated with standard six of the Kansas Safe and Secure School Standards. This standard requires school districts to provide training for staff and students on how they should react in cases of emergency. CBT allows humans the ability to monitor and examine their thoughts and experiences while experiencing an event such as a crisis drill. With CBT, people think about what they are considering during an experience which then gives them the capacity to replace problematic situations with emotions and behaviors that can provide beneficial outcomes. In the instances of crisis drills, if staff and students have the ability to think about the situations they are engaged in, then they can more readily adjust their

behavioral response in order to produce positive outcomes when encountering a harmful or negative situation. CBT can also be applied to standard three and standard four. Each of these standards highlights the importance of implementing a communication system; standard three specifies practicing communication systems between the school system and law enforcement, while standard four expects communication procedures for notifying parents and community members of emergency situations not on school grounds. With CBT, practicing these communication processes prior to a crisis allows those involved to begin thinking about the environment and adapt behavioral changes as necessary and efficient.

Maslow's theory, although seemingly simplistic, focuses on meeting necessary and basic needs while CBT's rigorous approach requires application of processes to achieve desired outcomes. Both theories support the significance of the Kansas Safe and Secure School Standards from a theoretical perspective.

### *Summary of Findings*

#### **Research Findings**

*Null Hypothesis 1: There is no significant difference between high school and elementary principals' perceptions of factors contributing to school safety preparedness.*

Because of the variance of grade levels affected by school violence, it was important to determine if there was a difference between elementary and secondary principal perceptions of school safety preparedness. As the literature review in chapter two highlighted, school violence incidents throughout history have occurred at the elementary and secondary school grade levels. The high profile case of Columbine High School on April 20, 1999 immediately spurred conversations among congress, law enforcement, schools, and mental health professionals (Marshall, 2000). On December 14, 2012, the public's attention was again dominated by a

horrific act of school violence at Sandy Hook Elementary School in Newtown, Connecticut in which 20 first grade students and six staff members were shot and killed. Both of these incidents not only brought school safety to the forefront of communities but also began to change the way schools and law enforcement responded to school violence incidents.

The number of elementary principals in the state of Kansas is greater than that of secondary principals, which was evidenced in the participation of elementary (246) and secondary principals (180) in this study. However, the perception of preparedness of school safety among elementary and secondary principals revealed very little statistical significance, and thus the hypothesis was supported.

There were only two questions from the survey that indicated a statistically significant difference. The first question, 8A, my school utilizes some form of student identification card or badge, was one of nine survey questions that aligned with Kansas Safe and Secure School standard five. The primary focus of standard five is a school board approved and up-to-date school safety and security plan that includes procedures for outside individuals entering facilities, procedures for securing school buildings during an emergency, and evacuation plans. None of the other eight survey questions aligned with standard five indicated a statistically significant difference.

When looking deeper into the topic of student identification badges, it is logical for secondary students to have a higher rate of usage of student identification badges. Secondary students are often more mobile within their school setting as students in traditional campuses pass to numerous classes throughout a school day. In addition, secondary students may enter and exit the campus on a regular basis compared to elementary students, who once on campus generally do not leave the facility in the course of a school day without being accompanied by an

adult. Conversely, secondary students may enter and exit campus for work study programs, internships, dual credit coursework, or a reduced school day pending grade level and credit rank. Hence, the student identification badge for a secondary student may be more of a safety measure than at the elementary level, where students remain in a cohort of teachers with fewer transitions.

The second survey question that indicated a statistically significant difference was question 12B, I feel the off campus/site evacuation drills have adequately prepared me for a school crisis event. For this question, elementary principals reported a higher confidence level (.37) compared to secondary principals (0.24) with a 0.008 P-Value in which 0.05 indicates a statistically significant difference. Question 12B was one of only three questions aligned to the Kansas Safe and Secure School Standard seven, which specifies that crisis drills shall be conducted to ensure procedures are working effectively and assure accountability.

It is interesting to note that Question 12A, in which there was no significant statistical difference between elementary and secondary principals, asks the survey respondent to specify the number of drills in which an evacuation plan is utilized. Elementary principals reported a higher rate of participating in evacuation drills. This data might suggest that the higher rate of completing evacuation drills, the higher the perception of preparedness.

Of the two questions that show a statistically significant difference, one difference favors that of elementary principals and one difference favors secondary principals. In addition, these differences do not constitute a majority of any of the Kansas Safe and Secure School Standards. Finally, the licensure requirements to be a public-school principal are the same for elementary and secondary principals—the endorsement reflects K-12 building leadership. This is important to note because the perceptions measured in this research are with principals who have the same

licensure qualifications no matter the grade level in which they lead. It is for these reasons that the null hypothesis is accepted.

*Null Hypothesis 2: There is no significant difference between urban and rural school principals' perceptions of factors contributing to school safety preparedness.*

Another component of school violence incidents referenced in the literature review is the geographic locations in which they occur. For example, one horrific school shooting occurred on October 2, 2006, at a rural, one-room Amish schoolhouse in Lancaster County, Pennsylvania. Yet, one of the most recent high-casualty school shootings occurred in a large urban high school in Parkland, Florida at Marjory Stoneman Douglas High School on February 14, 2018 (Walker, 2018). These incidents greatly impacted the students, the staff, and the community, yet the communities are vastly different in both the size and geographic regions in which they occurred.

Kansas is a state that, although many consider to be solely rural, has a balance of both urban and rural communities in which school districts reside. Of the 529 Kansas public school principals who participated in this survey study, 241 represent rural (less than 2,500 people) schools and 288 represent urban (50,000 or more people) or urban cluster (at least 2,500 people) communities (U.S. Census Bureau, 2016). The study disaggregated data related to school safety perceptions of preparedness in urban and rural Kansas public school principals.

The data revealed there are eight total survey questions in which there are statistically significant differences between urban and rural Kansas public school principals. However, when looking deeper into how these differences align with the Kansas Safe and Secure School Standards, there are two standards that reflect a greater perception of preparedness by urban school principals.

Nine of the survey questions from this study align with standard five of the Kansas Safe and Secure Schools Standards. Standard five specifies the following:

*School districts shall have in place an up-to-date school safety and security plan that is approved by the local board of education. The plan shall include a procedure for outside individuals entering district facilities when they have business to discuss with school officials. The plan shall also include procedures for securing school buildings during an emergency, and evacuation plans, reunification plans, routes, and sites in case of emergency the plan should discuss how to recover from an emergency situation, and any other policies or procedures at the local board of education deems necessary.*

Six of the nine survey questions in this study aligned to this standard indicate statistically significant differences that revealed urban school principals' perceptions of school safety preparedness was greater than that of rural Kansas public school principals. Specifically, urban Kansas school principals indicated more preparedness in having a written plan for the prevention of incidents, having an up-to-date school safety and security plan approved by the local board of education, restricted vehicular access to school grounds, and parent-reunification forms and plans in place, as well as plans to provide counseling and resources for staff and students in the event of a violent incident. There are specific factors that may directly affect these results. Urban school districts may have more resources within and outside of the school to help develop and implement plans and resources for school violence incidents. In this survey, 108 principals indicated they govern a school that consists of grades K-12 students. Thus, these principals essentially work independently compared to districts that have multiple administrators in which to plan and implement plans. This could be a direct correlation as well that highlights limitations



to access counseling services and resources, in which rural communities often struggle to fill positions within the school setting as well as in providing community-based services on a regular basis.

In addition to standard five, standard one also signifies that rural school principals have a lower perception of school safety preparedness than urban principals. Standard one looks at specific infrastructure characteristics such as secure doors and windows, and infrastructure integrity in consultation with local law enforcement and emergency management. Similarly, to standard five, access to law enforcement and emergency management might be a key reason for this discrepancy. Often, rural area law enforcement covers multiple communities and large square mile areas. Hence, utilizing law enforcement and emergency management agencies to regularly consult on school safety initiatives might be a barrier. In addition, rural district budgets are often strapped in meeting payroll obligations for certified and classified employee salaries. Extra monies to add into infrastructure is not often a budget priority.

Although the data supports the null hypothesis and only two of the nine standards indicate a significant statistical difference between urban and rural school principals' perceptions of school safety preparedness, these two standards are significant in the areas that determine school safety preparation, and implications for further study in this area will be addressed later in chapter five.

***Null Hypothesis 3:** There is no significant difference between the number of safety drills and the perceived preparedness of Kansas K-12 school principals.*

In the literature review, Kansas legislation consecutively addressed the number of drills that would be appropriate in preparing for school violence and crisis events. Prior to 2018, Kansas public schools participated in one fire drill per month and three tornado drills each year.

There were no requirements for any other types of safety drills except for tornado and fire drills. However, in 2018, the Kansas Legislature ordered the Kansas State Fire Marshal to incorporate a yearly total of 16 emergency preparedness drills in Kansas schools (Fire Marshal; Power and Duties; Rules and Regulations., 2018). One year later, the Kansas Legislature modified this requirement from sixteen total drills to nine: three fire, three tornado, and three crisis drills. Neither bill was informed by feedback or data that measured the perception of preparedness for safety by school officials.

In this study, respondents were asked about the number of crisis drills conducted. The data of all respondents, regardless of school principal type or location, was disseminated. Of the respondents, 257 principals had reported conducting zero drills, and 289 principals reported one or more drills. Of those conducting one or more drills, 126 principals had conducted two or more and 45 had conducted four or more, well over the limit of the required three crisis drills.

When the survey data was reviewed, only two question responses did not reveal a significant statistical difference and, therefore, the null hypothesis was rejected. In fact, principals who reported participating in one or more drills also reported that they practiced drills in accordance with their safety plan. Additionally, principals in this study perceived the increased drills in the 2018-19 legislation increased the preparedness of their schools (0.41) compared to the change in the required amount of drills, which was reduced in 2019-20 (0.25) (See Appendix G). This is interesting data because the sheer number of drills reported in the literature review indicated a high stress rate reported by parents and school staff when conducting drills, yet a strong reduction in the amount of drills deeply decreased the perception of school safety preparedness.

## **Findings Related to the Standards**

The results of the research study questions correlate to the Kansas Safe and Secure School Standards and supports the purpose of this study which was to measure Kansas K-12 principals' perception of the factors that contribute to school safety preparedness, incorporating the expectations outlined in the standards adopted by the Kansas Legislature in 2019.

House substitute for SB 109 (2018) by the Kansas Committee on Appropriations included language that required the KSBOE to develop standards to make all public schools and attendance centers in the state safe and secure (Fire Marshal; Power and Duties; Rules and Regulations., 2018). On December 18, 2018, the KSBOE adopted nine standards to formulate the safety standards (Appendix A). The adopted standards were enacted into law July 2018 and specify the expectations for schools and district to comply and move assuredly towards safe and secure environments.

Because the standards are new, one question asked of all principals was as follows: I, the school principal, am familiar with the Safe and Secure School Standards adopted in 2019. Of the principals responding, almost 400 had familiarity with the standards. This is important to note because the Kansas Legislature in 2019 mandated the standards be developed by the KSDE and funding for school safety was to be aligned to compliance with the standards.

The other survey questions from this study were aligned to each of the Kansas Safe and Secure School Standards. These provide additional insight into the level of implementation and understanding of the standards by Kansas public school principals.

### ***Standard 1***

The focus of standard one is school infrastructure, including secure interior and exterior doors and windows. As the literature review supports with fire and tornado related crisis events,

improvements in infrastructure drastically reduced, and in some cases eliminated injury and death in the event of fire and tornado occurrences. The history of school fires resulted in swift change to legislation and policy that provided an impetus to continuously improve safety protocols and decrease death and injury. Less than one month after the deadly fire in 1958 at Our Lady of the Angels school in Chicago, Illinois, 20 recommendations were made to improve fire safety in schools (Groves, 2008). Some of the infrastructure recommendations that created immediate positive impact included automatic sprinklers and smoke and heat detectors. Regular inspections by the fire marshal ensured accountability of schools to follow codes and inspect infrastructure.

Similar to facility improvements that decreased fire-related injury and death, tornado safety measures also focused on effective infrastructure. In the aftermath of several tornadoes that caused death and destruction to schools in 2011, state and governmental assistance was offered to enhance tornado safety measures when rebuilding or new school buildings were designed (Paul & Stimers, 2015). Tornado safety drills always involves moving people to the safest location in a building, and efficient and effective warning systems are vital to a school's infrastructure as the window of time to move students to safety during a tornado is very minimal.

As the fire marshal works with schools to regularly inspect infrastructure related to fire safety, standard one recommends working with local law enforcement officials as well as local emergency management agencies to review and evaluate the existing infrastructure of school buildings. Specifically, secured doors and windows are identified in the standard. Question 30 of the survey specifically asked Kansas school principals if their building infrastructure was safe and secure, including secured doors (interior and exterior) and windows. Of the 574 responses to the question, 454 responded that they agreed or strongly agreed that their school building

infrastructure is safe. This is compelling data that standard one, overall, has been addressed in terms of infrastructure.

### ***Standard 2***

Creating and enhancing security technology systems in school buildings, such as security cameras, integrated exterior door locks, fire alarms, and panic buttons is the focus of standard two. Although technology is ever evolving, fire and tornado warning alarms have historically been a critical safety component in schools. The survey questions aligned to standard two asked principals if their schools utilized technology to enhance school safety and also asked principals to identify the technology features specific to their buildings. The raw data responses indicate that schools are spending money to enhance technology related to safety and security measures. Five hundred forty-one principals either agreed or strongly agreed their buildings utilize technology to enhance school safety, with the strongly agree category with the highest number of responses (326). Automatic door locks, security cameras, and a visitor identification system garnered the most responses in terms of the specific safety features currently implemented and in place in Kansas schools. School principals are also investing in panic buttons that automatically notify law enforcement in the event of a crisis. Standard two is another area that strongly supports an alignment between principal perceptions of school safety preparedness and the standards.

### ***Standard 3***

This standard stipulates districts provide a communication system that allows information sharing between the school district, law enforcement, and first responders. This standard also specifies that a process be developed for district employees to follow in order to contact law enforcement, as well as covering and practicing these expectations with staff two times a year

during school hours. Furthermore, a matrix is to be included illustrating the communication channel with all first responders in the district. Four survey questions aligned with this standard, and again the raw data tells a story of how schools are aligned to the standard and where schools need to work to improve in order to be compliant with the Kansas Safe and Secure School Standards.

One key piece of information to be able to carry out these specific items and communicate with law enforcement and first responders is an updated list of staff and students in each building. Of all the principals responding to the survey, 514 principals agreed or strongly agreed that an updated list is kept both in the school office and in classrooms. Where principals began to waiver in their understanding of what is entailed in an effective communication system was evident in question 27, where principals were specifically asked if their school utilized a system of communication that allows for information sharing and access to the school's security plan between the school, law enforcement, and other first responders. Over 100 principals either disagreed or strongly disagreed that a system was utilized, but 69 principals were unsure if there was a system in place or not. In the next survey question aligned to standard three, principals were asked about practicing the communication with staff at least two times a year during school hours. Nearly 150 principals disagreed or strongly disagreed with this question and again, 44 were unsure if the communication system had been reviewed with staff. There was even less confidence in the final survey question that aligned with standard three in that 188 principals indicated their school did not have a matrix outlining the school's communication system with law enforcement and first responders.

The raw data from the survey questions aligned to standard three gives some insight beyond the research data that indicates significant statistical differences between the groups

identified in the hypothesis. This data reveals that although schools are confident in the areas of their building they can control, such as infrastructure and technology upgrades, communication with stakeholders outside of the school building is not at a level necessary to promote swift response in the event of a school crisis incident. The Columbine shooting spurred changes in not only how law enforcement responds to a school violence incident, but also in how schools communicate with law enforcement during a time of a school violence incident. Yet, according to this research, schools are still not at the level necessary to ensure processes are in place that regularly practice or establish lines of communication with law enforcement and first responders. Regardless of the event, fire, tornado, or school violence, it is imperative that schools have a pre-determined and effective communication plan with local law enforcement and first responder agencies.

#### ***Standard 4***

This standard also centers on communication but focuses on developing a procedure for notifying individuals not on school grounds during an emergency, such as parents or community members. The survey question that aligned with this standard inquired whether parents were aware where students would be evacuated in the event of a crisis or school violence incident. The results of the principals' survey responses initiated some interesting points to consider in this standard. Principal responses were varied regarding whether parents knew about student evacuation plans with 237 principals disagreeing, 161 agreeing, and 145 principals indicating they were unsure. One reason principals may have responded with "disagree" is that there are conflicting beliefs on sharing reunification information with the community. Some believe that it is unsafe to reveal that information in advance. However, the standard itself indicates that the expectation is that a plan be in place for notifying individuals who are not on school grounds if

an incident were to occur. This might lead to confusion in interpreting the standard itself and the response of survey participants. Ultimately, principals may need clarification that this standard does not indicate parents need to know exactly where students will be in a time of crisis if reunification occurs off site; but schools do need to have a plan and process in place for how they will notify parents and the community if an evacuation were to occur.

### ***Standard 5***

As noted in Chapter 4, standard five has nine survey question responses aligned to the standard. The standard encompasses not only having a local board of education approve safety and security plans for the schools and district, but specifies the plan must have procedures for visitors to school, procedures for securing the building during an emergency, evacuation plans, reunification plans, pre-determined routes and sites, and additional discussion on how to recover from an emergency situation. This standard showed discrepancies in most of the survey questions relating to urban versus rural school principals as well as the number of drills principals had implemented in relation to perceptions of school safety preparedness. Beyond those discrepancies noted in the previous chapter, some of the raw data revealed that standard five is a critical standard that warrants some further discussion as principals seek to improve school safety preparedness. As was cited in the literature review, the most recent publication from the Federal Commission on School Safety identified recommendations under three broad categories: prevention of school violence, protecting schools and mitigating effects of violence, and response and recovery from school violence (DeVos et al., 2018). As principals implement and monitor drills in schools, their input into the process of creating safety plans is valuable.

The standard specifically states, “School districts shall have in place an up-to date safety and security plan (Crisis Plan) that is approved by the local board of education...” (Hill, 2018).



Yet over 100 principals (approximately 20% of those responding) reported that they either did not have a written plan or were unsure about whether a written plan existed with approval by the local board of education. These numbers were consistent with most of the other survey questions aligning with standard five. Nearly 100 principals reported not having evacuation plans accounting for students with special needs or health care needs, a lack of written plans for off campus evacuation, and lack of parent reunification forms or releases.

As the literature review emphasized for both fires and tornadoes, in which schools often have no control over whether or not a natural disaster will strike, diligent planning can minimize property damage and save lives (Kennedy, 2004). Although the Sandy Hook Elementary School shooting claimed 24 lives on December 14, 2012, the school implemented their plans and procedures, which in actuality resulted in fewer deaths (Schildkraut & Hernandez, 2014). As was noted in the results of Chapter 4, principals who practice more drills had higher perceptions of school safety preparedness; however, without a plan in place, approved by the local board of education, the number of drills may not be effective if they are not aligned to specific plans and procedures.

### ***Standard 6***

Professional development is a key component to curriculum and instruction in education, and standard six addresses professional development in relation to school crisis planning and preparation. Standard six emphasizes that school districts shall provide annual training for staff and students on how they should react in cases of emergency and specifically review their school crisis plans. Six survey questions related directly to this standard and the first two questions are specific to principal training. Overwhelmingly, principals agreed and strongly agreed that they had received training in implementing a safety plan. However, when asked if the training

received in implementing a safety plan had prepared principals for a crisis event, the responses were not overwhelmingly positive. Principal responses noted the following results: 198 principals were unsure or disagreed or strongly disagreed that their training was helpful in making them feel prepared. This contrast in responses from principals reveal that some principals are receiving training but do not deem it effective in being able to promote preparedness. The goal for any professional development is to be able to use and implement training effectively in practice. It is important that districts seek out and provide effective training for crisis preparedness, for principals and staff alike.

This standard also asked if there was training for a specific response tactic. Principals who had received a specific response training, such as ALICE, Run, Hide and Fight, or training from local law enforcement also marked agree or strongly agree when asked in the previous question if their training was helpful in making them feel prepared. Thus, specific training tactics had a higher perception of preparedness than training unrelated to a specific tactic.

The other survey questions related to standard six asked about annual training for all staff and students specific to the crisis plan. The results from these questions aligned closely with the results of those having a plan in place. Those who had a board approved plan also indicated that annual training on the plan was provided to staff and students. Again, having a plan in place, and then providing specific training of the plan itself as well as implementation of the plan is critical to a plan's success.

### ***Standard 7***

Standard seven mandates that crisis drills shall be conducted to ensure procedures are working effectively and that school districts establish procedures to ensure accountability for implementing crisis plans. Two data points from the three survey questions aligned to this

standard stand out. The first is the fact that 276 principals answered they had not yet conducted a crisis drill that utilized an evacuation plan. Remember, earlier standards outlined the need for specific evacuation plans to be implemented and practiced, and the legislature had increased the number of crisis drills in 2018 and in 2019 according to the literature review. As Chapter 4 concluded that schools who implemented more drills had a greater perception of school safety preparedness, not conducting any in accordance with a school safety plan is a cause for concern. Especially when a part of the standard also asks that accountability be ensured.

Of those principals who conducted crisis drills, 192 either disagreed or strongly disagreed that outside agencies had participated in any of the drills. As will be evident in the next standard, all but a few schools reported including outside agencies in the written plan but utilizing the agencies in practice is not consistently occurring. Again, part of practice is to ensure that all entities can function together to ensure safety.

### ***Standard 8***

Like the other standards referenced above, standard eight says school districts shall consult with local law enforcement and other emergency management agencies to contribute, review, and evaluate the current crisis plan. After approval from the local board of education, school districts are to make their crisis plans available to agencies that need to have an understanding of the plan, such as local law enforcement, emergency management, and other first responder agencies.

One of the survey questions ties directly to this standard and asks about which local and state agencies are included in the school's written plan. Only twenty-two principals reported that no local or state agencies are included in their plan. Most reported that local police and fire departments were a part of their plans, and several also included local EMS and mental health

agencies. School districts appear to understand the need to include outside agencies in their crisis plans but lack an understanding of utilizing those agencies when conducting drills, practicing, and evaluating their drills.

In 2018, the Committee on Appropriations included language that required the KSBOE to develop standards to make all public schools and attendance centers in the state of Kansas safe and secure (Kansas Safe and Secure Schools Act, 2018). The standards were enacted into law July 2018 and specify the expectations for schools and districts to comply and move assuredly towards safe and secure environments. In addition, as stated in the literature review, because the standards were created out of an appropriations bill, school districts can be held accountable for these standards when they are using grant monies for school safety from the state. As is evident from the above summary of results regarding the standards, there are standards in which principals report compliance and there are some standards in which principals report a lack of true understanding. As schools are often graded, through assessments and accreditation, in how they align their curriculum and instruction to the standards, there is a lack of what accountability might be put in place as it relates to the Kansas Safe and Secure School Standards.

### **Implications for Research**

Kansas public school principals are tasked with implementing school safety drills. The drills include fire, tornado, and crisis drills; however, there is little research about the perceptions of school principals regarding school safety preparedness. The following recommendations are made for future research:

1. A study should be continued to include the perceptions of Kansas Public School Principals who supervise K-12 buildings. The research in this study regarding the first hypothesis excluded principals who were not specific to an elementary or secondary

setting in the null hypothesis section related to perceptions of school safety preparedness for Kansas school principals. However, over 100 school districts utilize a principal model that serves a K-12 building. Furthering the current study to include this demographic may allow schools to make better decisions regarding developing and implementing school safety and crisis plans for school leaders who encompass various grade levels and student ages.

2. A study should be conducted to examine the correlation between school principal perceptions of school safety preparedness and student perceptions of school safety preparedness. As theoretical frameworks were utilized for this current study, the safety needs of students are critical to learning outcomes. Although school principals are responsible for implementing crisis drills and crisis plans, students actively participate in the drills. If students do not feel safe in school, effective teaching and learning cannot occur.
3. A study should be conducted that examines an educational component in conjunction with crisis drills. When fire drills were mandated in the 1950's, an educational component accompanied the mandate. Not only were the number of fatalities nearly eliminated for school fires, but there was not fear associated with the drills. This does not seem to be the case with current crisis drills. Fire safety weeks, accompanied by curriculum and events, alleviated the response to fear by conducting regular drills. Further research examining the nature of crisis drills could be beneficial as the evidence from this study shows that an increase in the number of drills also increases the perception of school safety preparedness.

4. Additionally, a study that examines what principals do before and after drills in activities that align to the Kansas Safe and Secure School Standards should be undertaken to better understand the difference between practicing drills and an increased perception of safety. For example, how much do activities and discussions before the drill or debriefing after a drill to learn what worked and where adjustments need to be made contribute to the perceived sense of safety. A drill is an opportunity to practice the action, but the standards outline significant areas that must be addressed to move towards a safer school environment.
5. As this study was nearing completion the entire world was overtaken with COVID-19, which greatly impacted education across the world. A future study to begin to look at the definition of safety as it relates to a pandemic as a school crisis situation is necessary. This study could include the measures necessary when returning to school after a crisis-related shutdown, such as a pandemic.

### **Implications for the Standards**

The findings from this research provides information about the important role that the Kansas Safe and Secure School Standards plays in assisting school districts, the KSDE, and lawmakers when planning for school safety measures. This research indicates that there is not a significant difference in perceptions of school safety preparedness with elementary and secondary principals; however, there are many principals that serve both populations and this needs to be explored as it relates to their implementation of the standards. Although there was not enough statistically significant evidence to determine rural and urban principal perceptions varied greatly, the data did support that rural settings do lack some of the immediate access to resources outlined in the standards such as mental health support and collaboration with local

stakeholders that are more readily available in urban settings. Exploring even more deeply the need to incorporate mental health collaboration efforts with schools and community agencies is paramount when dealing with crisis situations, and a shortage of mental health resources and/or a lack of access to resources must be addressed.

Another implication of the standards and this study deals with funding related to school safety. Many of the standards address technology and infrastructure. As newer construction in schools occurs, many of the upgrades regarding safety in the structure has been a focus. However, there is a need to evaluate structural compliance aligned to safety, such as limiting structural aesthetic components that may not be safe. In addition to technology and infrastructure, collaboration with outside agencies and professional resources to provide support in the event of a crisis. All of these items require funding to either start-up or maintain. In order to fully implement each standard, funding schools directly for school safety protocols is vital.

With the number of drills directly impacting the perceptions of preparedness, each district, the state department of education, and the legislature can work together to secure an appropriate number of drills as well as a mechanism to measure and evaluate their effectiveness. Monitoring the impact of reduced requirements in fire drills will be important as when those drills were added in the 1950's, fatalities in schools were eliminated. As this study indicated, nearly half of school principals had reported not conducting any drills within the past six months; yet, drills are a requirement. A need for monitoring compliance and accountability in addition to planning and training components could be explored.

## **Conclusion**

Throughout history, school violence incidents have been evidenced in educational settings. Higher profile incidents brought to the forefront issues of school safety and resulted in

many changes for how schools prepared for and handled school crisis events. Based on the findings of this study, the Kansas Safe and Secure School Standards established unified guidance for all public schools across the state. When looking at the diversity of Kansas public schools, the data from this study concludes that there is not a significant difference between the perceptions of school principal preparedness in terms of elementary and secondary principals and urban and rural school principals.

However, the study does show that an increased number of drills significantly increases the perception of school safety preparedness amongst principals, no matter if they are urban, rural, elementary, or secondary.

There is much work to be done to enhance safety and security across schools not only in the state of Kansas but across the nation. The safety and welfare of students continues to be a priority of school leaders. School leaders utilize data and best practices to make decisions. Yet, very limited studies occur in regard to what is and what is not working in school safety procedures and comprehensive planning. One of the most common ways to prepare for anything, including crisis, is to practice and then make corrections as needed. This study supports that practicing drills increases the perception of school safety preparedness. In order to make decisions that are less reactionary as a result of a high-profile incident, all policy makers and those who put policy into practice must come together to make meaningful, lasting, and effective change to improve school safety.



## References

- 3 San Antonio teens wounded: Gangs blamed for gunfire at Sam Houston High. (1990). *The Victorian Advocate*, 2018(2/21/2018), 3c.
- 8th grader kills youth, then himself at school. (1983, January 21). *New York Times*, 10.
- A Boy Shot by his Schoolfellow-A Curious Affair. (1867). *New York Times (1857-1922)*, 5.
- A Tragedy and It's Lesson. (1903, March 4). *Yorkville Enquirer*, 2017(3/20/2017), 1–5. Library of Congress.
- Adame, T. (2015). A school shooting in Goddard, 30 years later. *The Wichita Eagle*.
- After Newtown: A look at school safety. (2013). *Curriculum Review*, 52(6), 3.
- Amendment to the Juvenile Justice System, no. SB367 (2016).  
[http://www.kslegislature.org/li\\_2016/b2015\\_16/measures/sb367/](http://www.kslegislature.org/li_2016/b2015_16/measures/sb367/)
- Annual Report on School Safety* (Vol. 1, p. 48). (1998). Department of Justice; Department of Education. <https://www2.ed.gov/PDFDocs/schoolsafety.pdf>
- Another “Jesse James” gang. (1884, March 7). *New York Times*, 2.
- Armenta, T., & Stader, D. L. (2011). School safety: Implications and guidelines for secondary Schools. *Clearing House*, 84(4), 119–123.  
<https://doi.org/10.1080/00098655.2011.564968>
- Baldassarra, C. F. (2015). Fire protection changes in schools: Changes in codes and in society's expectations for school safety have driven increased fire protection and security requirements for colleges, universities, and K-12 schools. *Consulting Specifying Engineer*, 52.
- Belknap, J., & Greathouse, T. (2019, September 19). *School shooting*. Encyclopedia Britannica.
- Bennett-Johnson, E. (2004). The root of school violence: Causes and recommendations for a plan of action. *College Student Journal*, 38(2), 199–203.
- Black youth shot by whites at school. (1990, March 28). *The Free Lance Star*.  
<https://news.google.com/newspapers?id=LeFLAAAIBAJ&pg=4139,5070023>
- Blad, E. (2014). In Wash. school tragedy, gunman defies “typical” profile. *Education Week*, 34(11), 6.

- Blad, E. (2016). School civil rights took spotlight under Obama. *The Education Digest*, 82(1), 4–10.
- Blad, E. (2018). Ready for a shooter? 1 in 5 school police say no—Education Week. *Education Week*.
- Blasingim, J., & Sather, S. (2018). An IRB perspective on improving informed consent. *The Association of Clinical Research Professionals*, 32(4).
- Boggs, G. L. (2000). A question of place. *Monthly Review*, 52(2), 18.
- Braunack-Mayer, A., Tooher, R., Collins, J. E., Street, J. M., & Marshall, H. (2013). Understanding the school community's response to school closures during the H1N1 2009 influenza pandemic. *BMC Public Health*, 13, 344.
- Brendtro, L. K. (2005). The worst school violence. *Reclaiming Children and Youth*, 14(2), 73–80.
- Brock, M., Kriger, N., & Miro, R. (2017). *School Safety Policies and Programs Administered by the U.S. Federal Government: 1990-2016*.
- Brock, S. E., Nickerson, A. B., Reeves, M. A., Savage, T. A., & Woitaszewski, S. A. (2011). Development, evaluation, and future directions of the PREP a RE school crisis prevention and intervention training curriculum. *Journal of School Violence*, 10(1), 34–53. <https://doi.org/10.1080/15388220.2010.519268>
- Brooks, H. E., & Doswell, C. A., III. (2002). Deaths in the 3 May 1999 Oklahoma City tornado from a historical perspective. *Weather and Forecasting*, 17(3), 354–362.
- Buerger, M. E., & Buerger, G. E. (2010). Those terrible first few minutes: Revisiting active-shooter protocols for schools. *FBI L. Enforcement Bull.* 1, 79.
- Burton, N., M. (2012). Our Hierarchy of Needs: Why true freedom is a luxury of the mind. *Psychology Today*. <https://www.psychologytoday.com/us/blog/hidden-and-sought/201205/our-hierarchy-needs>
- Carella, J. (2008, August 20). When the angels came calling. *NFPA Journal: The Magazine of the National Fire Protection Agency*.
- Carrying Firearms. (1866, April 30). *New York Times (1857-1922)*, 4.
- Carsten, P. (2017). *Tornado facts and information*. National Geographic. <https://www.nationalgeographic.com/environment/natural-disasters/tornadoes/>

- Center for Disease Control. (2006). *School-Associated Student Homicides—United States, 1992—2006*. MMWR Weekly. <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5702a1.htm>
- Centers for Disease Control and Prevention. (2018). *About School Violence*. <https://files.eric.ed.gov/fulltext/ED505193.pdf>
- Changnon, S. A. (2009). Two record long tornadoes in Illinois and their major impacts. *Transactions of the Illinois State Academy of Science, 102*.
- Christensen, L. (2015). How to use big data, Qualtrics style. *Utah Business, 29*(4), 28.
- Clark, M. (2017, January 20). *School security expert: Rural areas not more prone to shootings*. Journal-News. <https://www.springfieldnewssun.com/news/school-security-expert-rural-areas-not-more-prone-shootings/Ozhx6K5xEYjEQHOMcQuVgL/>
- Colloff, P. (2016, August 3). 96 minutes. *Texas Monthly*. <https://www.texasmonthly.com/articles/96-minutes/>
- Colyer, G. J., & Jorgensen, S.F. (2018). *Statewide Variance of the Kansas Fire Prevention Code, KAR-22-18-2a*. Office of the State Fire Marshal. <https://www.firemarshal.ks.gov/DocumentCenter/View/328/Statewide-Variance-of-the-Kansas-Fire-Prevention-Code-KAR-22-18-2a-PDF>
- Competitive grant announcement: Reducing community gun violence: Project Safe Neighborhoods, fiscal year 2002*. (2004).
- Comprehensive School Safety Initiative Report*. (2014). National Institute of Justice. <https://www.ncjrs.gov/pdffiles1/nij/247757.pdf>
- Conference on School Safety: Transcripts. (2006, October 19). [Conferences]. US Department of Education (ED). <https://www2.ed.gov/admins/lead/safety/schoolsafety/transcripts.html>
- Cowell, J. M., & McDonald, C. C. (2018). School safety. *The Journal of School Nursing, 34*(4), 254. <https://doi.org/10.1177/1059840518782215>
- Creswell, J. W. (2015). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research, Enhanced Pearson eText with Loose-Leaf Version--Access Card Package*. Fifth Edition. In *Pearson Education, Inc.* (5th ed.). Pearson Education, Inc.
- Cullen, D. (2009). *Columbine* (1st ed.). New York.
- Daly, B. (2018, May 18). Texas school shooting: Training is key, ex-FBI Director says. *Fox Business, 2018*(5/18/2018). <https://www.foxbusiness.com/politics/texas-school-shooting-training-is-key-ex-fbi-investigator-says>

- Davey, M. (2010, October 10). Wisconsin: Young gunman is dead after standoff at high school. *The New York Times*.
- Davies, G. K. (2008). Connecting the dots: Lessons from the Virginia Tech shootings. *Change*, 40(1), 8–16. <https://doi.org/10.3200/CHNG.40.1.8-15>
- DeVos, B., Azar II, A. M., Nielson, K. M., & Whitaker, M. (2018). Final Report of the Federal Commission of School Safety. <https://doi.org/10.1177/1059840518782215>
- Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). *Internet, Phone, Mail, and Mixed-Mode Surveys: The Tailored Design Method*. New York: John Wiley & Sons, Incorporated.
- Dillon, N. (2007). Planning to Ensure Our Schools Are Safe. *Education Digest: Essential Readings Condensed for Quick Review*, 72(6), 9–12.
- Dixon, D. (2005). *Never come to peace again: Pontiac's uprising and the fate of the British empire in North America*. Norman : University of Oklahoma Press. [https://k-state-primo.hosted.exlibrisgroup.com/primo-explore/fulldisplay?docid=01KSU\\_ALMA21146376900002401&context=L&vid=NewUI&lang=en\\_US&search\\_scope=Entire\\_Library\\_Collection&adaptor=Local%20Search%20Engine&tab=default\\_tab&query=any,contains,never%20come%20to%20peace%20again:%20pontiac%27s%20uprising%20and%20the%20fate%20of%20the%20british%20& mode=Basic](https://k-state-primo.hosted.exlibrisgroup.com/primo-explore/fulldisplay?docid=01KSU_ALMA21146376900002401&context=L&vid=NewUI&lang=en_US&search_scope=Entire_Library_Collection&adaptor=Local%20Search%20Engine&tab=default_tab&query=any,contains,never%20come%20to%20peace%20again:%20pontiac%27s%20uprising%20and%20the%20fate%20of%20the%20british%20& mode=Basic)
- Dobson, K. S. (2013). The science of CBT: Toward a metacognitive model of change? *Behavior Therapy*, 44(2), 224–228. <https://doi.org/10.1016/j.beth.2009.08.003>
- Douglas, F. (1985, September 5). Schoolgirl shot in face on bus here. *Richmond Times-Dispatch*, (p. A-1).
- Drug-Free Schools and Communities Act Amendments of 1989, H.R.3614, Congress, 101st Congress, 2018 (1989). <https://www.congress.gov/bill/101st-congress/house-bill/3614>
- Dwyer, K., Osher, D., & Warger, C. (1998). Early warning, timely response: A guide to safe schools (p. 33) [Guides]. American Institutes for Research, Washington, D.C.; Center for Effective Collaboration and Practice; National Association of School Psychologists.
- Edwards, R. (2018). *Tornado Preparedness Tips for School Administrators*. Storm Prediction Center, Norman, OK. <https://www.spc.noaa.gov/faq/tornado/school.html>
- Elliott, R. (2015). The real school safety debate: Why legislative responses should focus on schools and not on guns. *Arizona Law Review*, 57(2), 523–551.
- Estepa, J., & Korte, G. (2018, May 18). Texas school shooting: Trump says administration will protect students. *USA Today*, 2018(5/18/2018).

<https://www.usatoday.com/story/news/politics/2018/05/18/donald-trump-tweets-high-school-shooting-santa-fe-texas/622958002/>

Federal Emergency Management Agency. (2002). *Mitigation Case Studies: Protecting School Children From Tornadoes State of Kansas School Shelter Initiative* (Federal Emergency Management Administration (FEMA), pp. 1–15).

Federal Emergency Management Agency. (2014). School Building Fires. *Topical File Report Series, 14*(14), 1–17.

Fein, R. A., Vossekuil, B., Pollack, W. S., Borum, R., Modzeleski, W., & Reddy, M. (2004, July 31). *Threat assessment in schools: A guide to managing threatening situations and to creating safe school climates* [U.S. Department of Education]. United States Secret Service and United States Department of Education.

Feinstein Statement On Rancho Tehama Reserve Shooting. (2017). *States News Service*.  
<http://go.gale.com/ps/i.do?p=AONE&sw=w&issn=&v=2.1&it=r&id=GALE%7CA514564421&sid=googleScholar&linkaccess=abs>

Final Report of the Federal Commission on School Safety (p. 177). (2018). [Federal Commission on School Safety]. The U.S. Departments of Education, Justice, Homeland Security, & Health and Human Services.

Finley, L. L. (2014). *School Violence: A Reference Handbook*. 2nd Edition. ABC- CLIO.

Fire marshal; power and duties; rules and regulations., K.S.A. § 31-133 (2018).  
[https://www.ksrevisor.org/statutes/chapters/ch31/031\\_001\\_0033.html](https://www.ksrevisor.org/statutes/chapters/ch31/031_001_0033.html)

Fired into a group of children. (1891, April 10). *New York Times*, 2.

Fliter, L. (2019). *Oral Testimony as Proponent before the House Education Committee on SB 128*. Kansas Association of School Boards.

Florida, R., & Boone, A. (2018, March 1). Mass shootings are the problem of everytown, USA. *Bloomberg.Com*. <https://www.bloomberg.com/news/articles/2018-03-01/all-kinds-of-u-s-communities-have-suffered-mass-shootings>

Fox, A. (2017). Innocence lost: The Atlantic Shores school shooting. *WAVY-TV*.

Franco, C., & Klebe, E. R. (1995). CRS Report for Congress: The Safe and Drug-Free Schools and Communities Act. In *Congressional Research Service, The Library of Congress*, p. 6 [Congressional Research Service]. The Library of Congress.

Gainey, B. S. (2009). Crisis Management's New Role in Educational Settings. *The Clearing House*, 82(6), 267–275.

- Gaub, J. E., White, M. D., Padilla, K. E., & Katz, C. M. (2017). Implementing a Police Body-Worn Camera Program in a Small Agency. *ASU Center for Violence Prevention and Community Safety*, 18.
- Graham, J., Shirm, S., Liggin, R., Aitken, M. E., & Dick, R. (2006). Mass-casualty events at schools: A national preparedness survey. *Pediatrics*, 117(1), 193. <https://doi.org/10.1542/peds.2005-0927>
- Grant, C. (2008, September 1). The Lake View School fire: Collinwood's hard lesson. *NFPA Journal: The Magazine of the National Fire Prevention Association*.
- Gray, L., & Lewis, L. (2015). *Public School Safety and Discipline: 2013-14. First Look. NCES 2015-051* (National Center for Education Statistics). <http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED556745&site=ehost-live>
- Grinshteyn, E., & Hemenway, D. (2016). Violent death rates: The US compared with other high-income OECD countries, 2010. *The American Journal of Medicine*, 129(3), 266–274. <https://doi.org/10.1016/j.amjmed.2015.10.025>
- Groves, A. (2008). Our lady of the angels school fire: 50 years later. *Fire Engineering*, 161(12), 59-60,62-64,66.
- Gun-Free Schools Act of 1993, no. H.R.987, 103rd Congress (1994). <https://www.congress.gov/bill/103rd-congress/house-bill/987>
- Gunman in S. Carolina school kills 1 and wounds 10 others. (1988, September 27). *New York Times*. <http://www.nytimes.com/1988/09/27/us/gunman-in-s-carolina-school-kills-1-and-wounds-10-others.html>
- Gunman kills himself after firing on schoolchildren. (1993, September 18). *Los Angeles Times*, 2018(2/23/2018). [http://articles.latimes.com/1993-09-18/news/mn-36470\\_1\\_sheridan-memorial-hospital](http://articles.latimes.com/1993-09-18/news/mn-36470_1_sheridan-memorial-hospital)
- Harrison, D., & Hook, J. (2018, February 18). After Florida school shooting, GOP lawmakers under pressure to back gun control; Students who survived the shooting at Marjory Stoneman Douglas High School have blasted lawmakers for taking contributions from the NRA and called on them to enact new gun-control laws. *Wall Street Journal (Online)*. [http://searchit.lib.ksu.edu/openurl/01KSU/01KSU\\_SERVICES?url\\_ver=Z39.88-2004&rft\\_val\\_fmt=info:ofi/fmt:kev:mtx:journal&genre=unknown&sid=ProQ:ProQ%253Aabicomplete&atitle=After+Florida+School+Shooting%252C+GOP+Lawmakers+Under+Pressure+to+Back+Gun+Control%253B+Students+who+survived+the+shooting+at+Marjory+Stoneman+Douglas+High+School+have+blasted+lawmakers+for+taking+contributions+from+the+NRA+and+called+on+them+to+enact+new+gun-control+laws&title=Wall+Street+Journal+%2528Online%2529&issn=&date=2018-02-18&volume=&issue=&spage=&au=Harrison%252C+David%253BHook%252C+Janet&i](http://searchit.lib.ksu.edu/openurl/01KSU/01KSU_SERVICES?url_ver=Z39.88-2004&rft_val_fmt=info:ofi/fmt:kev:mtx:journal&genre=unknown&sid=ProQ:ProQ%253Aabicomplete&atitle=After+Florida+School+Shooting%252C+GOP+Lawmakers+Under+Pressure+to+Back+Gun+Control%253B+Students+who+survived+the+shooting+at+Marjory+Stoneman+Douglas+High+School+have+blasted+lawmakers+for+taking+contributions+from+the+NRA+and+called+on+them+to+enact+new+gun-control+laws&title=Wall+Street+Journal+%2528Online%2529&issn=&date=2018-02-18&volume=&issue=&spage=&au=Harrison%252C+David%253BHook%252C+Janet&i)

sbn=&jtitle=Wall+Street+Journal+%2528Online%2529&bttitle=&rft\_id=info:eric/&rft\_id=info:doi/

- Hassan, C., Aarthun, S., & Sanchez, R. (2018, May 25). Indiana school shooting: Suspect in custody after shots reported in Noblesville. *CNN.Com*.  
<https://www.cnn.com/2018/05/25/us/indiana-school-shots-fired/index.html>
- Hassenpflug, A. (2004). Murder in the classroom: Privelege, honor, and cultural violence in Antebellum Louisville. *Ohio Valley History*, 4(2).  
[http://www.filsonhistorical.org/archive/ovhpdfs/OVH\\_V4N2\\_Hassenpflug.pdf](http://www.filsonhistorical.org/archive/ovhpdfs/OVH_V4N2_Hassenpflug.pdf)
- Hayhoe, G. F. (2004). Why we do the things we do. *Technical Communication*, 51(2), 181–183.
- He wanted to kill her. (1887, June 12). *Chicago Tribune Archive*.  
<http://archives.chicagotribune.com/1887/06/12/page/9/article/he-wanted-to-kill-her>
- Hemphill, R. S. (2008). Have teacher perceptions toward school violence impacted their work? A phenomenological study [The University of Oklahoma]. In *ProQuest Dissertations and Theses: Vol. Ph.D.* [http://searchit.lib.ksu.edu/openurl/01KSU/01KSU\\_SERVICES?url\\_ver=Z39.88-2004&rft\\_val\\_fmt=info:ofi/fmt:kev:mtx:dissertation&genre=dissertations+%2526+theses&sid=ProQ:ProQuest+Dissertations+%2526+Theses+Global&atitle=&title=Have+teacher+perceptions+toward+school+violence+impacted+their+work%253F+A+phenomenological+study&issn=&date=2008-01-01&volume=&issue=&spage=&au=Hemphill%252C+Randy+S.&isbn=9780549715122&jtitle=&bttitle=&rft\\_id=info:eric/&rft\\_id=info:doi/](http://searchit.lib.ksu.edu/openurl/01KSU/01KSU_SERVICES?url_ver=Z39.88-2004&rft_val_fmt=info:ofi/fmt:kev:mtx:dissertation&genre=dissertations+%2526+theses&sid=ProQ:ProQuest+Dissertations+%2526+Theses+Global&atitle=&title=Have+teacher+perceptions+toward+school+violence+impacted+their+work%253F+A+phenomenological+study&issn=&date=2008-01-01&volume=&issue=&spage=&au=Hemphill%252C+Randy+S.&isbn=9780549715122&jtitle=&bttitle=&rft_id=info:eric/&rft_id=info:doi/)
- Hersh, P. (1991, November 2). Student goes on killing spree at Iowa campus. *Chicago Tribune*.
- Hill, P., & Porter, J. (2018). *Kansas State Board of Education Meeting Minutes*. Kansas State Department of Education.  
<https://www.ksde.org/Portals/0/Board/Minutes/December%202018%20Minutes%20Approved.pdf>
- History of most remarkable crime known to Ohio is closed through self destruction of wanton murder. (1906, October 11). *The Morning Astorian*. (Astoria, Or).  
[http://chroniclingamerica.loc.gov/lccn/sn85042400/1906-10-11/ed-1/seq-1/print/image\\_681x670\\_from\\_0%2C2812\\_to\\_1864%2C4648/](http://chroniclingamerica.loc.gov/lccn/sn85042400/1906-10-11/ed-1/seq-1/print/image_681x670_from_0%2C2812_to_1864%2C4648/)
- Hoermann, S., Zupanick, C. E., & Dombeck, M. (2008). Cognitive-behavioral therapy for personality disorders (CBT). *Personality Disorders*.  
<https://www.gracepointwellness.org/8-personality-disorders/article/41578-cognitive-behavioral-therapy-for-personality-disorders-cbt>

- Hwang, K., Lanich, C., Alesia, M., Martin, R., Ryckaert, V., & Fittes, E. K. (2018, November 5). Noblesville school shooting: New details about the day of the shooting. *Indianapolis Star*.
- Illescas, C., Rouse, K., & Bunch, J. (2006, June 6). Hostage horror. *The Denver Post*.
- International Association of Chiefs of Police. (2018). *Practices in Modern Policing: Policing in Small, Rural, and Tribal Communities*. [https://www.theiacp.org/sites/default/files/2018-11/IACP\\_PMP\\_SmallTribal.pdf](https://www.theiacp.org/sites/default/files/2018-11/IACP_PMP_SmallTribal.pdf)
- Johnson, R. S. (2012). Monster tornado. *Cobblestone*, 33(3).
- Juvenile justice and delinquency prevention act of 1974, (1974). *Pub. L. No. 415- 93*. <https://ojjdp.ojp.gov/sites/g/files/xyckuh176/files/media/document/JJDPA-of-1974-as-Amended-12-21-18.pdf>
- K12 Academics. (2013). *History of School Shootings in the United States*.
- Kansas Association of School Boards. (2018). Committee advances amended school security bill – Kansas Association of School Boards (Vol. 2018, Issue 3/21/2018). [https://kasb.org/0320-2/?utm\\_source=1KASB+Members+-+December+2012&utm\\_campaign=7f68b41fd9-News\\_Briefs\\_030918&utm\\_medium=email&utm\\_term=0\\_0e36d3bc0d-7f68b41fd9-216090453](https://kasb.org/0320-2/?utm_source=1KASB+Members+-+December+2012&utm_campaign=7f68b41fd9-News_Briefs_030918&utm_medium=email&utm_term=0_0e36d3bc0d-7f68b41fd9-216090453)
- Kansas Personal and Family Protection Act, no. K.S.A. 75-7c01 et seq. (2018).
- Kansas Safe and Secure Schools Act, no. HB 2773, Kansas State Legislature (2018). [http://www.kslegislature.org/li\\_2018/b2017\\_18/measures/hb2773/](http://www.kslegislature.org/li_2018/b2017_18/measures/hb2773/)
- Kansas Fire Prevention Code, (2001). <https://www.firemarshal.ks.gov/158/Statutes-Regulations>
- Kansas Fire Prevention Code, (2018). <https://www.firemarshal.ks.gov/158/Statutes-Regulations>
- Kasdorf, J. S. (2007). To Pasture: “Amish Forgiveness,” Silence, and the West Nickel Mines School Shooting. *Cross Currents*, 57(3), 328–347.
- Kaufman, M. T. (1975, December 31). Sniper’s classmate says guns were “whole life.” *New York Times*, 1.
- Kaufman, Philip, Chandler, K. A., Rand, M. R., Miller, A. K., & Ruddy, S. A. (1999). *Indicators of school crime and safety, 1999* (Statistical Analysis Report NCES 1999057). Washington, DC : U.S. Dept. of Education, Office of Educational Research and Improvement, National Center for Education Statistics : U.S. Dept. of Justice, Office of Justice Programs, Bureau of Justice Statistics. <https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=1999057>



- Kennedy, M. (2004). Preparing for disaster. *American School & University*, 76(11), 16–22.
- Kifner, J., Bragg, R., Johnson, D., & Howe Verhovek, S. (1998, March 29). From wildtalk and friendships to five deaths in a school yard. *New York Times*, 1.
- Klein, J. (2012). *The Bully Society: School Shootings and the Crisis of Bullying in America's Schools*. New York University Press.
- Klotz, M. B. (2011). Supportive school discipline initiative.(IDEA IN PRACTICE)(Brief article). *Communique*, 40(2), 30.
- Knapp, A. (2012, December 19). S.C. mom recalls the horror, guilt 24 years ago, her son shot and killed 2 young girls at school. *Post*. [https://www.postandcourier.com/archives/s-c-mom-recalls-the-horror-guilt-years-ago-her/article\\_f5ab6083-392a-5878-b084-fb4b6db08cda.html](https://www.postandcourier.com/archives/s-c-mom-recalls-the-horror-guilt-years-ago-her/article_f5ab6083-392a-5878-b084-fb4b6db08cda.html)
- Kormann, C. (2018, May 23). Texas gun country confronts the Santa Fe High-School shooting. *New Yorker*. <https://www.newyorker.com/news/news-desk/a-high-school-shooting-in-gun-country>
- Langman, P. F. (2015). *School shooters: Understanding high school, college, and adult perpetrators*. Rowman & Littlefield.
- Library killer may be released. (2001). *American Libraries*, 32(4), 29–30.
- Liggin, R., Graham, C. J., & Dick, R. M. (2004). School preparedness for mass casualty events: 310. *Journal of Investigative Medicine*, 52, S312. <https://doi.org/10.1097/00042871-200401001-00863>
- Logue, J. N. (2008). Violent death in American schools in the 21st century: Reflections following the 2006 Amish School shootings. *Journal of School Health*, 78.
- Lundy, J. (2011, 1105). Mysteries of Everett: Hidden doors, unfinished art – The Viking Voice. [Http://Myvikingvoice.Com/2011/05/12/Mysteries-of-Everett-Hidden-Doors-Unfinished-Art/](http://Myvikingvoice.Com/2011/05/12/Mysteries-of-Everett-Hidden-Doors-Unfinished-Art/).
- Luppi, K. (2016). 40 years since a 5-minute shooting spree caused a lifetime of devastation, Cal State Fullerton remembers 7 lives lost. *Knight-Ridder/Tribune Business News*, pp. Knight-Ridder/Tribune Business News, 2016-07-01.
- Madden, R. L. (1985, December 13). At junior high, attempt to deal with shootings.. *The New York Times*.
- Malafrente, K. (2018). 9 New safety standards implemented by Kansas schools. *Campus Safety Magazine*. <https://www.campussafetymagazine.com/>

- Maniac blows up school, kills 42, mostly children; had protested high taxes. (1927, May 19). *New York Times*, 1.
- Marshal, E. (2000). The shots heard 'round the world. *Science*, 289, 570.
- Maslow, A. H. (1948). Some theoretical consequences of basic need-gratification. *Journal of Personality*, 16(4), 402–416. <https://doi.org/10.1111/1467-6494.ep11573146>
- Maslow, A. H. (1954). The instinctoid nature of basic needs. *Journal of Personality*, 22(3), 326. <https://doi.org/10.1111/1467-6494.ep8930323>
- Masoomi, H., & van de Lindt, J. W. (2016). Tornado fragility and risk assessment of an archetype masonry school building. *Engineering Structures*, 128, 26–44. <https://doi.org/10.1016/j.engstruct.2016.09.030>
- McFadden, R. D. (1974, December 31). 3 killed and 9 wounded by an upstate sniper, 18. *New York Times*, 1.
- McGee, M., & Platt, R. E. (2015). The forgotten slayings: Memory, history, and institutional response to the Jackson State University shootings of 1970. *American Educational History Journal*, 42(1/2), 15–33.
- McGirk, T. (1986, May 18). Trauma of blast in school siege; Cokeville, Wyoming. *Sunday Times (London, England)*.
- Meintrup, D., & Goos, P. (2016). *Statistics with JMP: Hypothesis tests, ANOVA and regression*. Wiley-Blackwell.
- Merriam-Webster. (2019). preparedness. <https://www.MerriamWebster.Com/Dictionary/Preparedness>.
- Mitchell, M., Longhurst, J., & Jacob, D. (2008). It starts with us. *Reclaiming Children and Youth*, 17(1), 14-16,18-22.
- Moskovitz, M. (1999). Thurston High School shooting tragedy: The media downpour. *Public Relations Tactics*, 6(1), 20.
- Murray, R. D., Gereige, R., Grant, L., Lamont, J., Magalnick, H., Monteverdi, G., Pattishall, E., Roland, M. M., Wheeler, L., Devore, C. D., & Barnett, S. (2008). Disaster planning for schools—Council on school health. *Pediatrics; Pediatrics*, 122(4), 895–902. <https://doi.org/10.1542/peds.2008-2170>
- Muschert, G. W. (2007). Research in school shootings. *Sociology Compass*, 1(1), 60–80. <https://doi.org/10.1111/j.1751-9020.2007.00008.x>

- National Center for Education Statistics. (2017). *NCES Fast Facts*.  
<https://nces.ed.gov/fastfacts/display.asp?id=49>.
- National Center for Educational Statistics. (2013). *Public Elementary/Secondary School Universe Survey* (U.S. Department of Education).  
[https://nces.ed.gov/surveys/ruraled/tables/A.1.a.-1\\_2.asp?refer=](https://nces.ed.gov/surveys/ruraled/tables/A.1.a.-1_2.asp?refer=)
- National Fire Protection Association. (2016). *Fire Prevention Week—About Fire Prevention Week*. About Fire Prevention Week. <https://www.nfpa.org/Public-Education/ARCHIVED/Fire-Prevention-Week-old/About-Fire-Prevention-Week>
- Nebraska: School shooting ends in two deaths. (2011, January 6). *The New York Times*, A18(L).
- NIJ surveys school safety technologies nationwide to prevent and respond to violence. (2017).  
*Politics & Government Business*, 31.
- O’Donohue, W. T., & Fisher, J. E. (2012). *Cognitive Behavior Therapy: Core Principles for Practice* (1). Hoboken: Wiley.
- O’Hara, J. F. (2006). Kent State/May 4 and Postwar Memory. *American Quarterly*, 58(2), 301–329.
- Oklahoma Department of Emergency Management—Safe schools 101. (2013). *Oklahoma’s Official Website*.  
[https://www.ok.gov/OEM/Programs\\_&\\_Services/Safe\\_Schools\\_101/index.html](https://www.ok.gov/OEM/Programs_&_Services/Safe_Schools_101/index.html)
- Parents order Russian from their home and precipitate double tragedy. (1909, February 13). *Los Angeles Herald*, Page 2, Image 2.
- Paul, B. K., & Stimers, M. (2015a). Safety measures after the 2011 Joplin, Missouri, tornado. *Geographical Review*, 105(2), 199–216. <https://doi.org/10.1111/j.1931-0846.2014.12065.x>
- Pearle, L. (2016, February 12). School shootings since Columbine: By the numbers. *ABC News*.  
<https://abcnews.go.com/US/school-shootings-columbine-numbers/story?id=36833245>
- Perez-Pena, R., & Fuller, T. (2017, November 14). At least four are killed in a wide-ranging shooting in Northern California. *The New York Times*.
- Police still unraveling trail left by woman in rampage. (1988, May 22). *New York Times*.  
<http://www.nytimes.com/1988/05/22/us/police-still-unraveling-trail-left-by-woman-in-rampage.html>
- Portner, J. (1998). President seeks to boost federal role in school safety. *Education Week*, 18(8), 6.

- President and first lady call for a united effort to address bullying. (2011, March 10). U.S. Department of Education. <https://www.ed.gov/news/press-releases/president-and-first-lady-call-united-effort-address-bullying>
- Pro, J. A. (2003, March 3). York County 14-year-old shoots principal, turns gun on himself. *Pittsburgh Post-Gazette*.
- Ribbing, M. (1999, May 2). David Lawler shooting | Fatal junior high shooting still haunts 16 years later. *Tribunedigital-baltimoresun*. [http://articles.baltimoresun.com/1999-05-02/topic/9905040373\\_1\\_senti-firecracker-beneath](http://articles.baltimoresun.com/1999-05-02/topic/9905040373_1_senti-firecracker-beneath)
- Ricketts, M. L. (2007). K-12 Teachers' perceptions of school policy and fear of school violence. *Journal of School Violence*, 6(3), 45–68. [https://doi.org/10.1300/J202v06n03\\_04](https://doi.org/10.1300/J202v06n03_04)
- Robers, S., Kemp, J., Rathbun, A., Morgan, R. E., National Center for, E. S., & US Department of Justice, B. of, Justice Statistics. (2014). Indicators of School Crime and Safety: 2013. NCES 2014-042/NCJ 243299. In *National Center for Education Statistics* (National Center for Education Statistics. Available from: ED Pubs. P.O. Box 1398, Jessup, MD 20794-1398. Tel: 877-433-7827; Web site: <http://nces.ed.gov/>). National Center for Education Statistics. <http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED545223&site=ehost-live>
- Ryst, E., Rock, S. L., Albers, E. C., & Everheart, C. A. (2016). Implementation of project aware (advancing wellness and resilience education) in three rural Nevada school districts to increase mental health awareness, early identification with school-aged youth.. *Journal of the American Academy of Child & Adolescent Psychiatry*, 55(10, Supplement). <https://doi.org/10.1016/j.jaac.2016.09.249>
- Schildkraut, J., & Hernandez, T. C. (2014). Laws that bit the bullet: A review of legislative responses to school shootings. *American Journal of Criminal Justice*. 39(2), 358–375. <https://doi.org/10.1007/s12103-013-9214-6>
- Schildkraut, J., & Muschert, G. W. (2014). Media salience and the framing of mass murder in schools: A comparison of the Columbine and Sandy Hook massacres. *Homicide Studies*, 18(1), 23–44. <https://doi.org/10.1177/1088767913511458>
- Schweit, K. W. (2016). *Active Shooter Incidents in the United States in 2014 and 2015* [Federal Bureau of Investigation, U.S. Department of Justice, Washington D.C.]. Active Shooter Incidents in the United States in 2014 and 2015. <https://www.google.com/search?q=schweit+2016&oq=schweit+2016&aqs=chrome..69i57j0.2203j0j4&sourceid=chrome&ie=UTF-8&safe=active&ssui=on>
- Secure Our Schools Act, H. Rept. 106-718, The United States Congress, 106th Congress (2000). <https://www.congress.gov/congressional-report/106th-congress/house-report/718/1>

- Security tightens after 11 Detroit students are shot. (1992, November 26). *Ludington Daily News*, 2018(2/23/2018), 2.
- Shah, N. (2013, January 10). Discipline Policies Shift With Views on What Works. *Education Week*, 32(16), 4–5, 7, 9–11.
- Shorman, J. (2019, February 26). Kansas schools must hold 16 drills a year. Is that too many? *The Wichita Eagle*. <https://www.kansas.com/news/politics-government/article226327335.html>
- Shot School Teacher. (1906, October 10). *Daily Capital Journal*, 8.
- Shultz, J. M., Muschert, G. W., Dingwall, A., & Cohen A.M. (2013). The Sandy Hook Elementary School shooting as tipping point: “This time Is different.” *Disaster Health*, 1(2), 65–73. <https://doi.org/10.4161/dish.27113>
- Simmons, K. M., & Sutter, D. (2012). The 2011 tornadoes and the future of tornado research. *Bulletin of the American Meteorological Society*, 93(7), 959–962.
- Simmons, K. M., & Sutter, D. (2014). Fatality prediction for the 2011 tornado season based on historical extreme weather data. *Natural Hazards Review*, 15(3), 04014005. [https://doi.org/10.1061/\(ASCE\)NH.1527-6996.0000144](https://doi.org/10.1061/(ASCE)NH.1527-6996.0000144)
- Sirianni, J. (2015). Fire education K-12: Lowering fire deaths. *Fire Engineering*, 168(12), 80–83.
- Six students wounded. (1985, October 18). *The Albany Herald*. <http://google.com/newspapers/murray-wright-high-school>
- Smith, L. (2014, January 17). *H.R.3547 - 113th Congress (2013-2014): Consolidated Appropriations Act, 2014* [Webpage]. <https://www.congress.gov/bill/113th-congress/house-bill/3547>
- Speculation arises following Red Lake High School shooting on role of antidepressant medication. (2005). *Developments in Mental Health Law*, 24(2), 67.
- Statistical Briefing Book:OJJDP. (2018). Office of Juvenile Justice and Delinquency Prevention. <https://www.ojjdp.gov/ojstatbb>
- Stearns, P. N. (2008). Texas and Virginia: A bloodied window into changes in American public life. *Journal of Social History*, 42(2).
- Suicide of a student. (1887, November 13). *New York Times (1857-1922)*, 10.
- Suspension or revocation of driver’s license or privilege upon certain school safety violations, K.S.A. § 72-6136 (1996). [https://www.ksrevisor.org/statutes/chapters/ch72/072\\_061\\_0036.html](https://www.ksrevisor.org/statutes/chapters/ch72/072_061_0036.html)

- The madman in the tower. (1966). *Time*, 88(7), 20.
- THE recent murders. (1873, March 10). *New York Times (1857-1922)*, 1.
- Thompson, A. (2013, 1305). Moore, Okla. Tornado – FAQ. <https://www.Livescience.Com/34538-Moore-Oklahoma-Tornado-Facts.Html>.
- Thurston, L. P., & Berkeley, T. R. (2010). Morality and the Ethic of Care: Peaceable Rural Schools, Caring Rural Communities. *Rural Special Education Quarterly*, 29(2), 25–32.
- Thyer, B. A., Dulmus, C. N., & Sowers, K. M. (2012). *Human Behavior in the Social Environment: Theories for Social Work Practice*. John Wiley & Sons, Incorporated. <http://ebookcentral.proquest.com/lib/ksu/detail.action?docID=980956>
- Timeline of high-profile school violence. (2008). *Reclaiming Children and Youth*, 17(1), 17.
- Tragic shooting affair near Chattanooga. (1868, December 26). *New York Times (1857-1922)*, 4.
- U.S. Census Bureau. (2016). Urban and rural. <https://www.Census.Gov/Geo/Reference/Urban-Rural.Html>.
- USFA releases school fires report. (2007). *Fire Engineering*, 160(11), 61–61.
- Van Meter, J. A., & Dixon, P. G. (2014). Early dismissals in public schools on potential severe weather days. *Nat Hazards*, (73) 1609–1624.
- Vernon, A. (2010). Mass-shooting incidents: Planning and response. *Fire Engineering*, 163(9).
- Vossekuil, B., Reddy, M., & Fein, R. (2001). The secret service’s safe school initiative. *Education Digest*, 66(6), 4.
- Walker, A. (2018). Marjory Stoneman Douglas High School mass shooting leaves several dead. *UWIRE Text*, 1.
- Wilson, A. (2006). The bully problem. *World and I*, 21(9). <http://link.galegroup.com.er.lib.k-state.edu /apps/doc/A186998666/AONE?u=ksu&sid=AONE&xid=fbb9b1bf>
- Winegard, B., & Ferguson, C. J. (2017). The development of rampage shooters: Myths and uncertainty in the search for causes. In *The Wiley Handbook of the Psychology of Mass Shootings* (Vol. 2017, p. 59).
- Winerman, L. (2009). Crisis communication: Messages appear on Internet-based social networks within minutes of disasters occurring. Lea Winerman investigates how to harness this trend to create official community-response grids. *Nature*, 457.

Wong, M., Jang, L., & Cacas, S. (1989, January 7). Don't deny racial motivation For massacre In Stockton. *Asian Week (1983-1989)*, 6.

Woodall, H. (2017, February 1). Bill exempting campuses from concealed carry law gets hearing in Kansas House. *The Kansas City Star*.

# Appendix A - Kansas Safe and Secure School Standards

## SAFE AND SECURE SCHOOL STANDARDS SENATE BILL 109 SEC.76

### (Final Standards)

[http://www.kslegislature.org/li/b2017\\_18/asures/documents/sb109\\_enrolled.pdf](http://www.kslegislature.org/li/b2017_18/asures/documents/sb109_enrolled.pdf)

Below you will find a section 76 of Senate Bill 109 that stipulates the standards as outlined in the law passed on May 31, 2018.

- (d) During the fiscal year ending June 30, 2019, in addition to the other purposes for which expenditures may be made by the above agency from monies appropriated from the state general fund or from any special revenue fund or funds for fiscal year 2019 for such agency as authorized by chapter 95 or 104 of the 2017 Session Laws of Kansas, this or other appropriation act of the 2018 regular session of the legislature, expenditures shall be made by the above agency from such moneys for the State Board of Education to develop and adopt statewide standards for making all public schools and attendance centers operated by school districts in this state safe and secure: *Provided*, That in developing such standards, the State Board of Education:
- (1) Shall consult with the office of the adjutant general, the Kansas Bureau of Investigation, the Department of Health and Environment, the State Fire Marshal and any other state agencies as deemed necessary by the State Board of Education; and
  - (2) May consult with any local agencies and school boards as deemed necessary by the State Board of Education: *Provided further*, that the standards developed by the State Board of Education under this subsection shall include, but are not limited to:
    - (1) The infrastructure of school buildings and attendance centers operated by school districts in this state, including secured entrances, windows and other facets of the structural integrity of such buildings;
    - (2) security technology to be utilized in such buildings, including, but not limited to, intrusion detection systems and security cameras;
    - (3) communications systems, including, but not limited to, systems for interoperability between the school district and law enforcement agencies;and



- (1) any other systems or facilities the State Board of Education deems necessary for the safety and security of such buildings: *And provided further*, that the State Board of Education shall notify all school districts of the standards adopted under this subsection on or before January 1, 2019:

Standard 1. School districts shall safeguard that the infrastructure of school buildings and/or attendance centers operated by the district; are safe and secure, which includes creating secured doors (interior and exterior), enhancing the safety of windows, and improving any facet of structural building integrity. School districts shall consult with local law enforcement officials as well as local emergency management agencies to review and evaluate the existing infrastructure of school buildings.

Standard 2. School districts shall create or enhance security technology systems to be used in the buildings, including but not limited to, security cameras, integrated exterior door locks, fire alarms, panic buttons or other intrusion detection systems. Appropriate staff shall receive annual training involving security technology systems.

Standard 3. School districts shall provide a communication system that allows information sharing between the school district, law enforcement and other first responders. A process should be determined for district employees to follow to contact law enforcement. This system should be tested with staff twice a year during school hours. A matrix shall be included illustrating the interoperable communications with all first responders in the district.

Standard 4. School districts shall create a procedure for notifying individuals not on school grounds during emergency situations (i.e. parents/community members).

Standard 5. School districts shall have in place an up-to-date school safety and security plan (crisis plan) that is approved by

the local board of education. The plan shall include a procedure for outside individuals entering district facilities when they have business to discuss with school officials. The plan shall also include procedures for securing school buildings during an emergency, and evacuation plans, reunification plans, routes, and sites in case of emergency. The plan should discuss how to recover from an emergency situation, and any other policies or procedures the local board of education deems necessary.

Standard 6. School districts shall provide annual training for staff and students on how they should react in cases of emergency and specifically review the public portions of their school's crisis plan.

Standard 7. Crisis drills shall be conducted to ensure procedures are working effectively. School districts shall establish procedures to ensure accountability for implementing crisis plans.

Standard 8. School districts shall consult local law enforcement officials and other emergency management agencies to contribute, review and evaluate the current crisis plans and identify the different roles and responsibilities of those involved during an emergency event prior to local board of education approval. Once the plan is approved by the local board of education, the plan shall then be sent to the State Board of Education.

School districts shall be responsible to make the crisis plan available to local law enforcement, emergency management, and other first responder agencies and internally on a need-to-know basis after approval by the local school board.

Standard 9. If school districts choose to implement a firearm safety program, the program curriculum must meet the following criteria; kindergarten through fifth grade, the

program must be Eddie Eagle, or other evidence-based youth firearm safety program. For grades sixth through eighth, Eddie Eagle, or other evidence-based youth firearm safety program, OR “Hunters Education in our Schools Program” offered by the Kansas Department of Wildlife, Parks, and Tourism, or any other evidence-based program. For students enrolled in grades nine through 12, “Hunters Education in our Schools Program” offered by the Kansas Department of Wildlife, Parks and Tourism or any other evidence-based program shall be taught.

## Appendix B - Research Standards and Survey Crosswalk

Kansas Safe and Secure Schools Standards	Kansas Public Schools Principal Survey *Survey questions in bold were designed to align to the Kansas Safe and Secure School Standards.
<p><b>Standard 1.</b> School districts shall safeguard that the infrastructure of school buildings and/or attendance centers operated by the district; are safe and secure which includes creating secured doors (interior and exterior), enhancing the safety of windows, and improving any facet of structural building integrity. School districts shall consult with local law enforcement officials as well as local emergency management agencies to review and evaluate the existing infrastructure of school buildings.</p>	<p><b>Q30</b> My school building's infrastructure is safe and secure, including secured doors (interior and exterior) and windows.</p>
<p><b>Standard 2.</b> School districts shall create or enhance security technology systems to be used in the buildings, including but not limited to, security cameras, integrated exterior door locks, fire alarms, panic buttons or other intrusion detection systems. Appropriate staff shall receive annual training involving security technology systems.</p>	<p><b>Q9</b> My school utilizes technology to enhance school safety (e.g. security cameras, panic buttons, fire alarms)  <b>10</b> My school utilizes the following safety features (check all that apply)</p>
<p><b>Standard 3.</b> School districts shall provide a communication system that allows information sharing between the school district, law enforcement and other first responders. A process should be determined for district employees to follow to contact law enforcement. This system should be tested with staff twice a year during school hours. A matrix shall be included illustrating the interoperable communications with all first responders in the district.</p>	<p><b>Q15</b> An updated master list of students is kept in my school office or classrooms.  <b>Q27</b> My school utilizes a system of communication that allows information sharing and access to the school's security/crisis plan between the school, law enforcement, and other first responders.  <b>Q28</b> My school's communication system is tested with staff at least two times a year during school hours.  <b>Q29</b> My school has a matrix outlining the school's communication system with first responders.</p>
<p><b>Standard 4.</b> School districts shall create a procedure for notifying individuals not on school grounds during emergency situations (i.e. parents/community members).</p>	<p><b>Q17</b> Parents of students in my school know where students would be evacuated in the event of a school violence incident.</p>

<p><b>Standard 5.</b> School districts shall have in place an up-to-date school safety and security plan (Crisis Plan) that is approved by the local board of education. The plan shall include a procedure for outside individuals entering district facilities when they have business to discuss with school officials. The plan shall also include procedures for securing school buildings during an emergency, and evacuation plans, reunification plans, routes, and sites in case of emergency. The plan should discuss how to recover from an emergency situation, and any other policies or procedures the local board of education deems necessary.</p>	<p><b>Q3</b> My school district has a written plan for the prevention of mass casualty incidents at my school (e.g. a terrorist incident, a bombing, a shooting, or a biological organism release).</p> <p><b>Q4</b> My school district has an up-to-date school safety and security (crisis) plan approved by the local board of education.</p> <p><b>Q5</b> My school practices drills and other elements of the security (crisis) plan in accordance with the district's security (crisis) plan.</p> <p><b>Q6</b> My school has restricted vehicular access to school grounds (e.g. limited entrances and exits, specified parking requirements).</p> <p><b>Q7</b> My school has a parent reunification form or a student release form (in the event of emergency pick-up).</p> <p><b>Q8A</b> My School utilizes some form of student identification card or badge.</p> <p><b>Q8B</b> My school utilizes some form of staff identification card or badge.</p> <p><b>Q11</b> There are written plans for the evacuation (off campus site) of students and staff in my school if it were necessary.</p> <p><b>Q13</b> If you have an evacuation plan for your school, the plan contains provisions for children with health care needs (e.g. children in wheelchairs or with other mobility restrictions)</p> <p><b>Q14</b> My school has a written plan for conducting a "lockdown" (e.g. closing all entrances, preventing entrance or exit from the school) in the event of an emergency.</p>
<p><b>Standard 6.</b> School districts shall provide annual training for staff and students on how they should react in cases of emergency and specifically review the public portions of their school's crisis plan.</p>	<p><b>Q20</b> I, the school principal, have received training in implementing a safety plan.</p> <p><b>Q21</b> I feel the training I have received in implementing a safety plan has adequately prepared me for a crisis event?</p> <p><b>Q22A</b> I have received training in a specific response tactic (e.g. ALICE; Run, Hide Fight; Local Law Enforcement training)</p> <p><b>Q22B</b> Please provide a response with what training you have received (e.g. ALICE; Run, Hide, Fight; Local Law Enforcement Training)</p> <p><b>Q23</b> Designated staff in my school receive annual training on the school's security technology <u>system</u>.</p> <p><b>Q24</b> All Staff and Students in my school receive annual training on the school's security/crisis plan.</p>

<p><b>Standard 7.</b> Crisis drills shall be conducted to ensure procedures are working effectively. School districts shall establish procedures to ensure accountability for implementing crisis plans.</p>	<p><b>Q12A</b> I have conducted _____ number of drills at my school utilizing an evacuation plan.  <b>Q12B</b> I feel the off campus/off site evacuation drills have adequately prepared me for a school crisis event?  <b>Q26</b> Outside agencies, as identified in question 24, participate in my school's emergency preparedness drills</p>
<p><b>Standard 8.</b> School districts shall consult local law enforcement officials and other emergency management agencies to contribute, review and evaluate the current crisis plans and identify the different roles and responsibilities of those involved during an emergency event prior to local Board of Education approval. Once the plan is approved by the local Board of Education, the plan shall then be sent to the State Board of Education. School districts shall be responsible to make the crisis plan available to local law enforcement, emergency management, and other first responder agencies and internally on a need to know basis after approval by the local school board.</p>	<p><b>Q25</b> The following local and state agencies are included in my school's written plan (choose all that apply)</p>
<p><b>Standard 9:</b> If a school district chooses to implement a firearm safety program, the program curriculum must meet the following criteria:</p> <ul style="list-style-type: none"> <li>• Grades K-5 must be an evidence-based youth firearms safety program</li> <li>• Grades 6-12 must be an evidence-based youth firearms safety program, OR “hunters Education in our Schools Program” offered by the Kansas Department of Wildlife, Parks, and Tourism (Katie Malafrente, 2018)</li> </ul>	<p><b>This standard is not applicable to the study.</b></p>

## Appendix C - Author Permission of Survey

On Sun, Aug 25, 2019 at 1:41 PM Graham, James <[GrahamJames@uams.edu](mailto:GrahamJames@uams.edu)> wrote:

It is fine with me if you use the survey. I don't believe that I still have copies of the original survey document. Too many computer changes over the years!!!

---

James Graham, M.D.  
Associate Dean, Undergraduate Medical Education  
University of Arkansas for Medical Sciences  
College of Medicine Academic Affairs, Slot 603  
4301 W. Markham Street  
Little Rock, AR 72205  
501-686-8499

**From:** Renee Scott <[renee.scott@usd409.net](mailto:renee.scott@usd409.net)>

**Sent:** Friday, August 23, 2019 3:08 PM

**To:** Graham, James <[GrahamJames@uams.edu](mailto:GrahamJames@uams.edu)>; Liggins, Rebecca L <[LigginsRebeccaL@uams.edu](mailto:LigginsRebeccaL@uams.edu)>; Shirm, Steven W <[ShirmStevenW@uams.edu](mailto:ShirmStevenW@uams.edu)>; [dickrhondam@uams.edu](mailto:dickrhondam@uams.edu)

**Cc:** Donna Augustine-Shaw <[donna5@ksu.edu](mailto:donna5@ksu.edu)>; Haijun Kang <[hjkang@ksu.edu](mailto:hjkang@ksu.edu)>

**Subject:** article permissions

To Whom it May Concern,

I am writing to seek permission to utilize a survey that you published in the article "Planning for a mass casualty incident in Arkansas schools" in 2005. I would like to convert your survey into a Likert scale in order to measure perceptions of preparedness of public school principals in the state of Kansas. I have tried to utilize the online tool, in which I have permission to reference the article and use portions of the article exactly as printed, but I am actually requesting to utilize your survey as a basis for my study. Any help you can provide on how to proceed or obtain permission would be greatly appreciated.

Sincerely,

Renee L. Scott

Doctoral Student, Kansas State University

--

## Appendix D - Survey

This survey is being conducted as part of a dissertation research study designed to examine the perceived safety preparedness of principals outlined in the safe and secure school standards as well as the increased number of school crisis drills as per legislative changes over the past two years. Participants in this survey are limited to principals of K-12 public schools. This survey should take no more than ten minutes and may be taken from a mobile device.

Your participation is voluntary, and your responses will be kept confidential. No personally identifiable information will be associated with your responses in any reports of the data. Only aggregate data will be used for analysis. If you should have any questions about your rights as a research participant, please contact the Kansas State University of Research Compliance Office at 203 Fairchild Hall, Manhattan, KS 66502; at 785-532-3224; fax 785-532-3278; or [comply@k-state.edu](mailto:comply@k-state.edu). If you have any questions or comments about the survey, please feel free to contact me using the information below:

**Project Title:** School Safety Preparedness: A survey study of K-12 principals' perceptions relative to safe and secure Kansas public schools

Approval Date of Project: [TBD pending defense of proposal]

Expiration Date of Project: [TBD pending defense of proposal]

**Co-Major Professors of Project:**

Dr. Donna Augustine-Shaw, [donna5@ksu.edu](mailto:donna5@ksu.edu)

Dr. Haijun Kang, [hjkang@ksu.edu](mailto:hjkang@ksu.edu)

**Corresponding graduate Student:**

Renee L. Scott, [renees@ksu.edu](mailto:renees@ksu.edu), (620) 260-5000

**Purpose of the Research:** This research study is designed to examine the perceived safety preparedness of Kansas Public School Principals as outlined in the safe and secure school standards, including the perceived effectiveness of increasing the required number of emergency preparedness drills during the 2018-2019 school year. This study has the potential to inform current practice and policy around school safety.

**Procedures or Methods to be Used:** Online survey study of school principals of all Kansas Public Schools. No financial incentives will be afforded.

**Length of Study:** It is estimated that the length of the study will be 2 – 3 months.

**Risks or Discomforts Anticipated:** There are no known risks in participating in this voluntary research study.

**Confidentiality:** All responses to survey items are maintained under KSU password protected software. Only aggregate data will be used for reporting purposes.



Terms of Participation: I understand this project is research, and that my participation is completely voluntary. I also understand that if I decide to participate in this study, I may withdraw my consent at any time, and stop participating at any time without explanation, penalty, or loss of benefits to which I may otherwise be entitled.

**I verify that my completion of this survey indicates that I have read and understand this consent form and willingly agree to participate in this study under the terms described, and that my submission of this survey acknowledges receipt of this consent form.**

# Survey

Q1 What is the community population in which your school campus resides?

- Urban (50,000 or more people)
  - Urban Cluster (At least 2,500 and less than 50,000 people)
  - Rural (Less than 2,500 people)
- 

Q2 What are the grade levels of your campus (excluding Pre-Kindergarten)

- K-12
  - Elementary (K-2, K-3, K-4, K-5, K-6, 5-6)
  - Secondary (5-8, 5-12, 6-8, 6-12, 7-8, 7-12, 9-12)
  - Other \_\_\_\_\_
- 

Q3 My school district has a written plan for the prevention of mass casualty incidents at my school (e.g. a terrorist incident, a bombing, a shooting, or a biological organism release).

- Disagree
  - Unsure
  - Agree
-

Q4 My school district has an up-to-date school safety and security (crisis) plan approved by the local board of education.

Disagree

Unsure

Agree

---

Q5 My school practices drills and other elements of the security (crisis) plan in accordance with the district's security (crisis) plan.

Strongly Disagree

Disagree

Unsure

Agree

Strongly Agree

---

Q6 My school has restricted vehicular access to school grounds (e.g. limited entrances and exits, specified parking requirements).

Strongly Disagree

Disagree

Unsure

Agree

Strongly Agree

---

Q7 My school has a parent reunification form or a student release form (in the event of emergency pick-up).

Strongly Disagree

Disagree

Unsure

Agree

Strongly Agree

---

Q8A My School utilizes some form of student identification card or badge.

- Strongly Disagree
  - Disagree
  - Unsure
  - Agree
  - Strongly Agree
- 

Q8B My school utilizes some form of staff identification card or badge.

- Strongly Disagree
  - Disagree
  - Unsure
  - Agree
  - Strongly agree
-

Q9 My school utilizes technology to enhance school safety (e.g. security cameras, panic buttons, fire alarms)

Strongly disagree

Disagree

Unsure

Agree

Strongly Agree

---

Q10 My school utilizes the following technology safety features (check all that apply)

Automatic Door Locks

Visitor Identification System

Panic Button

Security Cameras

Fire Alarms

Other \_\_\_\_\_

My school does not utilize any technology safety features

---

Q11 There are written plans for the evacuation (off campus site) of students and staff in my school if it were necessary.

Disagree

Unsure

Agree

---

Q12A I have conducted \_\_\_\_\_ number of drills at my school utilizing an off-campus/site evacuation plan in the last six months. .

0

1

2

3

4+

---

Q12B I feel the off-campus/site evacuation drills have adequately prepared me for a school crisis event? (this will only be an option if they answered 1 or 2+ on previous question)

Strongly disagree

Disagree

Unsure

Agree

Strongly agree

---

Q13 If you have an evacuation plan for your school, the plan contains provisions for children with health care needs (e.g. children in wheelchairs or with other mobility restrictions)

Strongly Disagree

Disagree

Unsure

Agree

Strongly agree

---



Q14 My school has a written plan for conducting a "lockdown" (e.g. closing all entrances, preventing entrance or exit from the school) in the event of an emergency.

Disagree

Unsure

Agree

---

Q15 An updated master list of students is kept in my school office or classrooms.

Strongly Disagree

Disagree

Unsure

Agree

Strongly agree

---

Q16 My school has planned for back-up buildings to serve as emergency shelters in the event a school has to be evacuated.

Strongly Disagree

Disagree

Unsure

Agree

Strongly agree

---

Q17 Parents of students in my school know where students would be evacuated in the event of a school violence incident.

Strongly Disagree

Disagree

Unsure

Agree

Strongly agree

---

Q18 A plan to provide in-school counseling or access to available resources for students, including mental health professionals, is included in my school's written plan for a mass-casualty or school violence incident.

- Strongly Disagree
  - Disagree
  - Unsure
  - Agree
  - Strongly agree
- 

Q19 In my school's written plan for evacuation or lockdown, the following individuals would decide when such a procedure would be implemented: (choose all that apply)

- Superintendent of Schools
  - Principal of School
  - Local Law Enforcement
  - Teachers or Staff
  - Students
  - Other person or Agency
  - Other \_\_\_\_\_
-

Q20 I, the school principal, have received training in implementing a safety plan.

- Strongly Disagree
  - Disagree
  - Unsure
  - Agree
  - Strongly Agree
- 

Q21 I feel the training I have received in implementing a safety plan has adequately prepared me for a crisis event?

- Strongly disagree
  - Disagree
  - Unsure
  - Agree
  - Strongly Agree
-

Q22A I have received training in a specific response tactic (e.g. ALICE; Run, Hide Fight; Local Law Enforcement training)

Strongly Disagree

Disagree

Unsure

Agree

Strongly agree

---

Q22B Please provide a response with what training you have received. [this question will only be option to those who answered agree or strongly agree to 22A

- ALICE
- Run, Hide, Fight
- Local Law Enforcement Training
- Other \_\_\_\_\_

---

Q23 Designated staff in my school receive annual training on the school's security technology system.

Strongly Disagree

Disagree

Unsure

Agree

Strongly Agree

---

Q24 All Staff and Students in my school receive annual training on the school's security/crisis plan.

Strongly Disagree

Disagree

Unsure

Agree

Strongly Agree

---

Q25 The following local and state agencies are included in my school's written plan (choose all that apply)

- No local or state agencies are included
  - Local Police Department
  - Local Fire Department
  - Local Hospital(s)
  - Local EMS
  - State Emergency Management Agency
  - Local Mental Health Agencies
  - Other \_\_\_\_\_
- 

Q26 Outside agencies participate in my school's emergency preparedness drills

- Strongly Disagree
  - Disagree
  - Unsure
  - Agree
  - Strongly Agree
-

Q27 My school utilizes a system of communication that allows information sharing and access to the school's security/crisis plan between the school, law enforcement, and other first responders.

Strongly Disagree

Disagree

Unsure

Agree

Strongly agree

---

Q28 My school's communication system is tested with staff at least two times a year during school hours.

Strongly Disagree

Disagree

Unsure

Agree

Strongly agree

---



Q29 My school has a matrix outlining the school's communication system with first responders.

- Strongly Disagree
  - Disagree
  - Unsure
  - Agree
  - Strongly agree
- 

Q30 My school building's infrastructure is safe and secure, including secured doors (interior and exterior) and windows.

- Strongly Disagree
  - Disagree
  - Unsure
  - Agree
  - Strongly agree
-

Q31 I, the building principal, consult with local law enforcement officials and local emergency management agencies to review and evaluate the existing infrastructure of my school.

Strongly Disagree

Disagree

Unsure

Agree

Strongly agree

---

Q32 The increased required amount of emergency preparedness drills in 2018-19 increased the preparedness of my school in the event of an active shooter or school violence incident.

Strongly disagree

Disagree

Unsure

Agree

Strongly agree

---

Q33 The change in the required amount of drills for schools in 2019-20 specific to fire safety (decreased amount from 2018-19), tornadoes (decreased amount from 2018-19), and other crisis incidents changed the preparedness of my school.

- Strongly Disagree
  - Disagree
  - Unsure
  - Agree
  - Strongly agree
- 

Q34 I, the school principal, am familiar with the safe and secure school standards adopted in 2019.

- Strongly Disagree
  - Disagree
  - Unsure
  - Agree
  - Strongly agree
- 

Q35 Is there anything you would like to share regarding the factors contributing to the preparedness of safe and secure schools not addressed in this survey?

---

---

Q35 Is there anything you would like to share regarding the changes to required emergency preparedness drills prior to 2018-19, during 2018-19, or in the current 2019-20 school year?

---

## **Appendix E - Survey Introduction Letter**

Principals:

My name is Renee Scott, a doctoral student in the Department of Educational Leadership at Kansas State University. I am seeking Kansas public school principals to volunteer to participate in a study that has the potential to inform current policy and practice around school safety.

As a current superintendent and formal principal, I know first-hand the immense responsibility of being charged with the safety and security of staff and students. This research study seeks to determine the perceptions of school principals in relation to the increased required amount of drills in 2018 and 2019.

As a voluntary participant, you will be asked to complete a survey which should take no longer than ten minutes. This data can provide meaningful information that has the potential to inform future legislation. Your replies will be kept confidential. Only aggregated data will be used.

If you have any questions do not hesitate to contact me. Below is more explanation of the survey as well as a link to begin. I appreciate your willingness to participate.

Sincerely,  
Renee L. Scott  
Doctoral Student  
[renees@ksu.edu](mailto:renees@ksu.edu)  
620-260-5000

## Appendix F - Complete Survey Table Showing Statistical Differences between Elementary and Secondary Principals

*Gray cell signals statistically significant difference – ALPHA of 0.05					
Preparedness Measure	Elementary (K-2, K-3, K-4, K-5, K-6, 5-6)	Secondary (5-8, 5-12, 6-8, 6-12, 7-8, 7-12, 9-12)	MIN.	MAX.	P-Value
My school has a written plan for the prevention of mass casualty incidents at my school (e.g. a terrorist incident, a bombing, and shooting, or a biological organism release)	0.87	0.81	0.0	1.0	0.098
My school district has an up-to-date school safety and security (crisis) plan approved by the local board of education.	0.92	0.90	0.0	1.0	0.411
My school practices drills and other elements of the security (crisis) plan in accordance with the district's security (crisis) plan.	0.95	0.96	0.0	1.0	0.626
My school has restricted vehicular access to school grounds (e.g. limited entrances and exits, specified parking requirements).	0.47	0.45	0.0	1.0	0.721
My school has a parent reunification form or a student release form (in the event of emergency pick-up)	0.48	0.40	0.0	1.0	0.121
My school utilizes some form of student identification card or badge	0.13	0.45	0.00	1.0	0.000
My school utilizes some form of staff identification card or badge	0.83	0.78	0.0	1.0	0.184

My school utilizes technology to enhance school safety (e.g. security cameras, panic buttons, fire alarms).	0.93	0.97	0.00	1.0	0.107
There are written plans for the evacuation (off campus site) of students and staff in my school if it were necessary)	0.85	0.85	0.0	1.0	0.899
I feel the off campus/site evacuation drills have adequately prepared me for a school crisis event.	0.37	0.24	0.0	1.0	0.008
If you have an evacuation plan for your school, the plan contains provisions for children with health care needs (e.g. children in wheelchairs or with other mobility restrictions)	0.72	0.66	0.0	1.0	0.166
My school has a written plan for conducting a “lockdown” (e.g. closing all entrances, preventing entrances or exit from the school) in the event of an emergency.	0.92	0.94	0.0	1.0	0.429
An updated master list of students is kept in my school office or classrooms.	0.91	0.89	0.0	1.0	0.552
My school has made arrangements for back-up buildings to serve as emergency shelters in the event a school has to be evacuated.	0.86	0.84	0.0	1.0	0.592
Parents of students in my school know where students would be evacuated in the event of a school violence incident.	0.30	0.24	0.0	1.0	0.158
A plan to provide in-school counseling or access to available resources for students, including mental health professionals, is included in my school's written plan for a mass-casualty or school violence incident.	0.74	0.71	0.0	1.0	0.435

I, the school principal, have received training in implementing a safety plan.	0.82	0.82	0.0	1.0	0.906
I feel the training I have received in implementing a safety plan has adequately prepared me for a crisis event.	0.62	0.59	0.0	1.0	0.491
I have received training in a specific response tactic (e.g. ALICE; Run, Hide Fight; Local Law Enforcement training)	0.82	0.83	0.0	1.0	0.776
Designated staff in my school receive annual training on the school's security technology system.	0.43	0.51	0.0	1.0	0.120
All Staff and Students in my school receive annual training on the school's security/crisis plan.	0.76	0.78	0.0	1.0	0.512
Outside agencies participate in my school's emergency preparedness drills.	0.52	0.62	0.0	1.0	0.058
My school utilizes a system of communication that allows information sharing and access to the school's security/crisis plan between the school, law enforcement, and other first responders.	0.63	0.72	0.0	1.0	0.050
My school's communication system is tested with staff at least two times a year during school hours.	0.67	0.73	0.0	1.0	0.241
My school has a matrix outlining the school's communication system with first responders.	0.67	0.73	0.0	1.0	0.241
My school building's infrastructure is safe and secure, including secured doors (interior and exterior) and windows.	0.80	0.74	0.0	1.0	0.107
I, the building principal, consult with local law enforcement officials and local emergency	0.63	0.69	0.0	1.0	0.143



management agencies to review and evaluate the existing infrastructure of my school.					
The increased required amount of emergency preparedness drills in 2018-19 increased the preparedness of my school in the event of an active shooter or school violence incident.	0.41	0.41	0.0	1.0	0.942
The change in the required amount of drills for schools in 2019-20 specific to fire safety (decreased amount from 2018-19), tornadoes (decreased amount from 2018-19), and other crisis incidents changed the preparedness of my school.	0.25	0.20	0.0	1.0	0.245
I, the school principal, am familiar with the safe and secure school standards adopted in 2019.	0.68	0.68	0.0	1.0	0.993
Count	237	168			

## Appendix G - Complete Survey Table Showing Statistical Differences Between Urban and Rural Principals

Preparedness Measure	Rural	Urban	MIN.	MAX.	P-Value
My school has a written plan for the prevention of mass casualty incidents at my school (e.g. a terrorist incident, a bombing, and shooting, or a biological organism release)	0.77	0.84	0.0	1.0	0.025
My school district has an up-to-date school safety and security (crisis) plan approved by the local board of education.	0.86	0.93	0.0	1.0	0.009
My school practices drills and other elements of the security (crisis) plan in accordance with the district's security (crisis) plan.	0.92	0.94	0.0	1.0	0.303
My school has restricted vehicular access to school grounds (e.g. limited entrances and exits, specified parking requirements).	0.38	0.48	0.0	1.0	0.0024
My school has a parent reunification form or a student release form (in the event of emergency pick-up)	0.35	0.49	0.0	1.0	0.001
My school utilizes some form of student identification card or badge	0.14	0.31	0.0	1.0	0.000
My school utilizes some form of staff identification card or badge	0.58	0.90	0.0	1.0	0.000
My school utilizes technology to enhance school safety (e.g. security cameras, panic buttons, fire alarms).	0.94	0.93	0.00	1.0	0.766

\*Gray cell signals statistically significant difference – ALPHA of 0.05

There are written plans for the evacuation (off campus site) of students and staff in my school if it were necessary)	0.83	0.84	0.0	1.0	0.751
I feel the off-campus/site evacuation drills have adequately prepared me for a school crisis event.	0.28	0.35	0.0	1.0	0.083
If you have an evacuation plan for your school, the plan contains provisions for children with health care needs (e.g. children in wheelchairs or with other mobility restrictions)	0.63	0.71	0.0	1.0	0.055
My school has a written plan for conducting a “lockdown” (e.g. closing all entrances, preventing entrances or exit from the school) in the event of an emergency.	0.91	0.93	0.0	1.0	0.373
An updated master list of students is kept in my school office or classrooms.	0.90	0.90	0.0	1.0	0.984
My school has made arrangements for back-up buildings to serve as emergency shelters in the event a school has to be evacuated.	0.87	0.84	0.0	1.0	0.402
Parents of students in my school know where students would be evacuated in the event of a school violence incident.	0.31	0.26	0.0	1.0	0.215
A plan to provide in-school counseling or access to available resources for students, including mental health professionals, is included in my school's written plan for a mass-casualty or school violence incident.	0.67	0.75	0.0	1.0	0.037
I, the school principal, have received training in implementing a safety plan.	0.79	0.82	0.0	1.0	0.453

I feel the training I have received in implementing a safety plan has adequately prepared me for a crisis event?	0.57	0.61	0.0	1.0	0.305
I have received training in a specific response tactic (e.g. ALICE; Run, Hide Fight; Local Law Enforcement training)	0.84	0.80	0.0	1.0	0.181
Designated staff in my school receive annual training on the school's security technology system.	0.42	0.50	0.0	1.0	0.051
All Staff and Students in my school receive annual training on the school's security/crisis plan.	0.74	0.78	0.0	1.0	0.275
Outside agencies participate in my school's emergency preparedness drills.	0.55	0.54	0.0	1.0	0.816
My school utilizes a system of communication that allows information sharing and access to the school's security/crisis plan between the school, law enforcement, and other first responders.	0.63	0.67	0.0	1.0	0.279
My school's communication system is tested with staff at least two times a year during school hours.	0.69	0.71	0.0	1.0	0.778
My school has a matrix outlining the school's communication system with first responders.	0.28	0.35	0.0	1.0	0.103
My school building's infrastructure is safe and secure, including secured doors (interior and exterior) and windows.	0.71	0.79	0.0	1.0	0.035
I, the building principal, consult with local law enforcement officials and local emergency management agencies to review and evaluate the existing infrastructure of my school.	0.64	0.65	0.0	1.0	0.818

The increased required amount of emergency preparedness drills in 2018-19 increased the preparedness of my school in the event of an active shooter or school violence incident.	0.40	0.40	0.0	1.0	0.990
The change in the required amount of drills for schools in 2019-20 specific to fire safety (decreased amount from 2018-19), tornadoes (decreased amount from 2018-19), and other crisis incidents changed the preparedness of my school.	0.22	0.22	0.0	1.0	0.869
I, the school principal, am familiar with the safe and secure school standards adopted in 2019.	0.70	0.68	0.0	1.0	0.688
Count	241	288			

## Appendix H - Complete Survey Table Showing Statistical Difference Between Number of Drills

Preparedness Measure	1 or more drills	Zero Drills	MIN.	MAX.	P-Value
My school has a written plan for the prevention of mass casualty incidents at my school (e.g. a terrorist incident, a bombing, and shooting, or a biological organism release)	0.87	0.75	0.0	1.0	0.000
My school district has an up-to-date school safety and security (crisis) plan approved by the local board of education.	0.92	0.86	0.0	1.0	0.026
My school practices drills and other elements of the security (crisis) plan in accordance with the district's security (crisis) plan.	0.97	0.90	0.0	1.0	0.000
My school has restricted vehicular access to school grounds (e.g. limited entrances and exits, specified parking requirements).	0.48	0.39	0.0	1.0	0.021
My school has a parent reunification form or a student release form (in the event of emergency pick-up)	0.49	0.35	0.0	1.0	0.001
My school utilizes some form of student identification card or badge	0.23	0.24	0.00	1.0	0.762
My school utilizes some form of staff identification card or badge	0.80	0.71	0.0	1.0	0.011
My school utilizes technology to enhance school safety (e.g. security cameras, panic buttons, fire alarms).	0.96	0.90	0.00	1.0	0.003
There are written plans for the evacuation (off campus site) of students and staff in my school if it were necessary)	0.93	0.73	0.0	1.0	0.000

\*Gray cell signals statistically significant difference – ALPHA of 0.05

I feel the off campus/site evacuation drills have adequately prepared me for a school crisis event.	0.62	0.000	0.0	1.0	0.000
If you have an evacuation plan for your school, the plan contains provisions for children with health care needs (e.g. children in wheelchairs or with other mobility restrictions)	0.79	0.55	0.0	1.0	0.000
My school has a written plan for conducting a “lockdown” (e.g. closing all entrances, preventing entrances or exit from the school) in the event of an emergency.	0.95	0.89	0.0	1.0	0.003
An updated master list of students is kept in my school office or classrooms.	0.96	0.83	0.0	1.0	0.000
My school has made arrangements for back-up buildings to serve as emergency shelters in the event a school has to be evacuated.	0.91	0.80	0.0	1.0	0.000
Parents of students in my school know where students would be evacuated in the event of a school violence incident.	0.40	0.16	0.0	1.0	0.000
A plan to provide in-school counseling or access to available resources for students, including mental health professionals, is included in my school's written plan for a mass-casualty or school violence incident.	0.80	0.63	0.0	1.0	0.000
I, the school principal, have received training in implementing a safety plan.	0.88	0.77	0.0	1.0	0.466
I feel the training I have received in implementing a safety plan has adequately prepared me for a crisis event.	9.68	0.51	0.0	1.0	0.000
I have received training in a specific response tactic (e.g. ALICE; Run, Hide Fight; Local Law Enforcement training)	0.86	0.77	0.0	1.0	0.003
Designated staff in my school receive annual training on the school's security technology system.	0.52	0.41	0.0	1.0	0.006
All Staff and Students in my school receive annual training on the school's security/crisis plan.	0.83	0.70	0.0	1.0	0.000
Outside agencies participate in my school's emergency preparedness drills.	0.60	0.49	0.0	1.0	0.009

My school utilizes a system of communication that allows information sharing and access to the school's security/crisis plan between the school, law enforcement, and other first responders.	0.71	0.60	0.0	1.0	0.004
My school's communication system is tested with staff at least two times a year during school hours.	0.75	0.65	0.0	1.0	0.008
My school has a matrix outlining the school's communication system with first responders.	0.37	0.26	0.0	1.0	0.006
My school building's infrastructure is safe and secure, including secured doors (interior and exterior) and windows.	0.82	0.69	0.0	1.0	0.000
I, the building principal, consult with local law enforcement officials and local emergency management agencies to review and evaluate the existing infrastructure of my school.	0.72	0.57	0.0	1.0	0.000
The increased required amount of emergency preparedness drills in 2018-19 increased the preparedness of my school in the event of an active shooter or school violence incident.	0.45	0.35	0.0	1.0	0.009
The change in the required amount of drills for schools in 2019-20 specific to fire safety (decreased amount from 2018-19), tornadoes (decreased amount from 2018-19), and other crisis incidents changed the preparedness of my school.	0.25	0.19	0.0	1.0	0.054
I, the school principal, am familiar with the safe and secure school standards adopted in 2019.	0.75	0.63	0.0	1.0	0.001
Count	289	257			