

SCHOOL DISORDER AND THE CURRENT STRATEGIES UTILIZED: AN  
ANALYSIS OF TEXAS SCHOOLS

THESIS

Presented to the Graduate Council of  
Texas State University-San Marcos  
in Partial Fulfillment  
of the Requirements

for the Degree

Master of SCIENCE

by

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San Marcos, TX  
May 2013

SCHOOL DISORDER AND THE CURRENT STRATEGIES UTILIZED: AN  
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## **ACKNOWLEDGEMENTS**

I would like to thank the members of my thesis committee, Dr. Michael Supancic, Dr. Mark Stafford, Dr. Scott Bowman, and Dr. Victoria Calder for all of your guidance and dedication throughout my thesis and Master's course work. Also, I would like to acknowledge Dr. Sean Varano of Roger Williams University (Bristol, RI) who has been a mentor and friend throughout the course of my undergraduate and graduate studies. A special thanks to my fiancée, Sarah Westmoreland, who has been there for me throughout the course of my education; and instrumental in providing support throughout my thesis work. In addition, thank you to my parents, Joseph and Joan McKenna, who have loved me and encouraged me to reach for my dreams since I was young. Finally, thank you to all of the family members, friends, professors, and other individuals who have lent support, assistance, and guidance throughout my education.

This manuscript was submitted on February 5, 2013.

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## **ABSTRACT**

### **SCHOOL DISORDER AND THE CURRENT STRATEGIES UTILIZED: AN ANALYSIS OF TEXAS SCHOOLS**

by

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Texas State University-San Marcos

May 2013

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This study reports the findings of an analysis that established relationships between the strategies used by Texas schools to prevent and/or reduce disorder (SCP measures, educational-based programs for staff and students, and the use of law enforcement), characteristics of the school environment, and levels of school disorders. A stratified-random sampling method, based on community type and grade level, was utilized to ensure the sample was representative of all schools in Texas. Principals in the sample responded to an online questionnaire where information regarding the strategies

used to prevent and/or respond to disorder, the environmental characteristics of the school, and incidents of disorder were reported. Bivariate and multivariate analyses were conducted to examine the relationships between the variables. The results of this study indicate that Texas schools are using a wide variety of strategies to reduce and/or prevent incidents of disorder and certain environmental factors have a relationship with incidents of school disorder. In addition, the current research has identified several relationships that are of interest in terms of effectiveness of such strategies, and therefore has begun to strengthen the process of systematically evaluating the strategies currently being used by Texas schools.

## **CHAPTER I**

### **INTRODUCTION**

Over the past several decades, increasing attention and concern has been given to incidents of school disorder and the prevention strategies utilized by schools (Davies, 2008; Fallahi, Austad, Fallon, & Leishman, 2009; Fox, 2009; Frymer, 2009; Hong, Cho, Allen-Meares, & Espelage, 2001; Hong, Cho, & Lee, 2010; Larkin, 2009; Welsh, Greene, & Jenkins, 1999). Highly publicized incidences of disorder have caused school officials and communities across the country to realize the shortcomings of school safety and prevention measures. In addition, incidents of disorder, whether violent or non-violent in nature, have shown to negatively affect attendance rates, graduation rates, academic performance and the overall perception of safety by students (Loukas, 2007; Milam, Furr-Holden, & Leaf, 2010; Patton, Woolley, & Hong, 2011; Symons, Cinelli, James, & Groff, 1997).

The reason for the sudden increase in attention and concern regarding incidents of school disorder stems from the realization that a majority of children will attend educational institutions for a substantial part of their lives. Therefore, if incidents of disorder are not addressed through the implementation of effective prevention measures, a majority of youth will experience environments not suitable for successful human development and/or lifelong learning. By reducing the level of disorder and limiting the negative effects it has on students, parents and staff, school environments will enhance

opportunities for academic success. This in turn will lead to safer learning communities and more productive individuals later in life (Dake, Price, & Telljohann, 2003).

### **School Disorder: Prevalence**

In this study, “School Disorder” refers to crimes and acts of incivility either perpetrated by students while in the school, or experienced by students or teachers while at school (Gottfredson, Gottfredson, Payne, & Gottfredson, 2005). Acts of school disorder range from violent mass shootings, such as the events at Columbine High School and Virginia Tech University, to non-violent acts of insubordination and drug offenses. Both violent and non-violent acts of school disorder have been present in schools for many decades (Meraviglia, Becker, Rosenbluth, Sanchez, & Robertson, 2003). Though statistics show incidents of school disorder are decreasing, no campus or district can afford to dismiss the need for continued prevention strategies to combat the prevalence of disorder still found in U.S. schools (Robers, Zhang, & Truman, 2012; Texas Education Agency, 2011).

Robers et al. (2012) reported in the 2009-2010 school year that an estimated 828,000 non-fatal criminal victimizations involving students occurred in U.S. public schools (32 victimizations per 1,000 students). At least one criminal incident was reported by 85 percent of public schools included in the study. The most prominent criminal incidents include gang violence, drug crimes and assault. Approximately 20 percent of high school students indicated gang activity within their school and 23 percent of high school students reported drugs were offered, sold, or given to them. Also, 31 percent of high school students reported they had been in a fight within the past 12 months.



Robers et al. (2012) also indicated in the 2009-2010 school year that approximately 23 percent of public schools indicated bullying occurred between students on a weekly basis. An estimated 28 percent of students aged 12-18 indicated they had been bullied at school during the past six months, while 6 percent of students reported they had been cyber bullied in the past six months. In the same school year, four percent of students (aged 12-18) indicated they feared going to school. In the 2007-2008 school year, 34 percent of teachers agreed that student misbehavior negatively affected their teaching.

According to the Texas Education Agency (2011), during the 2010-2011 school year there were 1,747,803 violations of school code of conduct in Texas public schools. A total of 16,177 incidents were categorized as persistent and/or serious student misconduct. Also during the 2010-2011 school year, there were 1,243 incidents of school disorder that represented conduct punishable as a felony. There were 390 incidents that involved a student being caught with a weapon on school property, 6,325 assaults committed by students on other students or district employees, and 1,066 incidents associated with gang violence.

Despite the fact that incidents of disorder can be found on school campuses across the country on a daily basis, only widely published incidents of disorder, often involving grave violence and/or death, are brought to the attention of the public. These high profile incidents of disorder serve as the impetus for evaluation and change of policies and strategies responsible for protecting students and staff. Two incidents in particular have been monumental in changing how schools and campuses address incidents of disorder. The shootings that took place at Columbine High School and Virginia Tech University forever changed how school officials and communities address incidents of disorder in

schools. Although these events consisted of mass shootings and serious violence, it is the discovery and acknowledgment of the minor incidents of disorder (comparatively speaking) that led to such behavior that is intriguing.

**The Columbine High School shooting.** On April, 20, 1999, in the suburban town of Littleton, Colorado, one of the most devastating incidents of school violence occurred. Two students, Eric Harris and Dylan Klebold, entered Columbine High School armed with high-powered firearms and other explosive devices. The two gunmen killed 12 students and a teacher, and injured 21 others before killing themselves (Hong et al., 2011). The frightening aspect of this incident is that they had planned a much larger display of violence that was intended to kill everyone inside the school. Immediately following the incident, the media, parents and school officials looked for answers as to why the event occurred. Media speculation and reports attempted to link the incident to terrorism, bullying, school climate, messages of violence imbedded in music and video games, and the lack of parental supervision (Frymer, 2009). In response to this event, policy makers, government officials and the general public focused their attention on issues of school violence and the necessary prevention efforts.

In the days, months and years that followed Columbine, several plots and conspiracies were uncovered that involved student attacks on schools. Many of these incidents specifically cited Columbine as the inspiration to attempt such actions. The term “doing a Columbine” was commonly used to reference threats to a school’s safety (Fox, 2009). Several studies have examined the reasoning behind these large scale violent acts and concluded that they are often done as a means of protest (Hong et al., 2011; Larkin, 2009). Students who have endured years of bullying, social exclusion and humiliation find it necessary to retaliate against those they feel are responsible.

**Virginia Tech University shooting.** The tragedy at Virginia Tech University again brought violence in schools to the forefront. The difference this time was that it occurred on a college campus versus a secondary school. On April 16, 2007, a student of the university, Cho Seung-Hui, began a shooting spree that started in an on-campus dormitory and eventually ended three hours later in a classroom building. A total of 33 people were killed and another 25 were injured before Seung-Hui took his own life.

School officials and media outlets looked for answers as to why and how this event occurred. Issues of campus security, gun control, mental illness and mistreatment were of great concern (Davies, 2008; Fallahi et al., 2009). Several studies and investigations of the incident identified Seung-Hui as a troubled individual who exhibited signs of mental illness and perceptions of mistreatment (Hong et al., 2010). The information produced from these studies and investigations has led to significant changes in colleges and universities around the country. These changes include how colleges and universities identify and respond to perceptions of mistreatment, identify and treat mental illness and prepare for and respond to emergency situations (Fox, 2009). The incidents at Virginia Tech not only highlighted the shortcomings of universities when responding to a major act of violence, but also the lack of effective policy to identify and respond to more minor acts of disorder that Seung-Hui claimed to have endured while he was a student.

**Minor acts of school disorder.** One of the common factors between the incidents at Columbine High School and Virginia Tech University is the unidentified and/or ignored signs of minor disorder that arguably led to more violent acts of disorder. Although these two specific incidents of school disorder involved major acts of violence, the everyday issues of school disorder (e.g. fighting, drug dealing, insubordination, mistreatment, etc.) that were highlighted in each incident are equally concerning. Often,

these more minor incidents of school disorder do not receive as much media attention, but research has shown that they have significant effects on students and the overall school climate (Davies, 2008; Fallahi et al., 2009). Gottfredson et al. (2005) found that minor events of disorder are much more frequent than mass shootings and other forms of serious violence, thus, presenting an equal if not greater opportunity to affect the lives of students. As seen in many serious incidents of school disorder (e.g. mass-shootings), minor events are often the cause and motivation to carry out such an act (Hong et al., 2011; Larkin, 2009).

### **School Disorder: Policy and Prevention Strategies**

In response to these disturbing events, policies and procedures were implemented in a majority of schools across the country to address all forms (i.e. minor and major) of school disorder (Welsh et al., 1999; Welsh, 2001; O'Neill & McGloin, 2007). However, it still remains unclear what effect these policies have had on levels of school disorder. This is because policymakers and school officials have implemented prevention measures with a high degree of uncertainty. Prior research has suggested that the prevention strategies utilized lack a clear baseline measure of disorder prior to the implementation, leaving evaluators with limited capacity to ever understand the effects of the strategy or policy (Ballard & Brady, 2007). Policies and procedures are typically implemented in a quick manner in response to a specific incident, leaving no time to analyze the current school environment or state of disorder (i.e. obtain a baseline measure). Ballard and Brady (2007) concluded that many school officials believe that violence is not changing in either a positive or negative way, but simply staying constant. Therefore, a general lack of consensus has emerged in the existing literature regarding the overall effectiveness of various prevention strategies.

Three prominent types of prevention strategies have emerged in existing literature over the past decade. First, schools have utilized Situational Crime Prevention (SCP) measures aimed at preventing violence before it occurs (Ballard & Brady, 2007; O'Neill & McGloin, 2007). Second, schools have adopted classroom-based education aimed at facilitating better attitudes and problem solving strategies (Farrell, 2009; Hahn, et al., 2007; Hall & Bacon, 2005). Finally, schools have employed law enforcement officers to prevent, respond to and resolve incidents of school disorder (Brady, Balmer, & Phenix, 2007; Coon & Travis, 2012; Patterson, 2007; Weiler & Cray, 2012). Schools often utilize a multitude of strategies at any given time that derive from each of these three types. Strategies also have some overlap between the three types presented. For instance, law enforcement officers have been used to deliver educational content to students (Coon & Travis, 2012). While all policies and procedures are aimed at creating a safe and effective learning environment, research has suggested that a wide range of strategies are being used in an attempt to reach the common goal of safety in U.S. schools (Ballard & Brady 2007; Cheurprakobkit & Bartsch, 2005; Coon & Travis, 2012; Gottfredson & Gottfredson, 2005; Hall & Bacon, 2005; O'Neil & McGloin, 2007; Patterson, 2007; Time & Payne, 2008).

## **CHAPTER II**

### **LITERATURE REVIEW**

#### **Situational Crime Prevention Strategies to Reduce School Disorder**

Situational Crime Prevention (SCP) was widely adopted in the 1970's as policy and theory began to reflect the role of environmental factors on crime (O'Neil & McGloin, 2007). The premise of SCP is to reduce the opportunity for crime in a specific environment using measures that are highly targeted at one specific type of crime or issue (Clarke, 1983). These tactics are based theoretically on routine activities and rational choice theories (Cohen & Felson, 1979). For instance, if a campus has an influx of weapons, the use of metal detectors could be utilized to make it more difficult for students to get weapons into the building. SCP measures are aimed at managing and manipulating the environment in order to reduce the likelihood crime and/or disorder will occur (Clarke, 1983; O'Neil & McGloin, 2007).

School strategies such as metal detectors, closed circuit cameras, preventative locker or student searches, fencing around the perimeter and/or other measures aimed at reducing disorder before it can occur are grounded in SCP. Conceptually, these measures are expected to have a deterrent effect on the choice to commit an act of disorder on school grounds (Cheurprakobkit & Bartsch, 2005). For example, fencing and metal detectors represent an attempt to keep disorder from ever entering the school (e.g. bringing weapons or drugs to schools). Campuses that implement these strategies believe

that if they make it harder for students to engage in acts of disorder, they will rationally choose not to. The idea is not to directly prevent student behavior, but rather limit the opportunity a student has to engage in such an act (O'Neil & McGloin, 2007).

**The use of SCP strategies.** Several studies have concluded that the use of SCP tactics is one of the most common strategies used by schools to prevent disorder (Ballard & Brady 2007; Cheurprakobkit & Bartsch, 2005; O'Neil & McGloin, 2007; Welsh, 2001; Welsh et al., 1999). Several superintendents from Georgia public schools were asked in 2005 what they do to prevent disorder; the majority highlighted measures that fall within the scope of SCP. Measures such as metal detectors, closed circuit cameras and random locker searches were among the most cited tactics (Ballard & Brady 2007). In 2005, a study of Texas middle and high schools again uncovered SCP measures among the most common tactics used to prevent disorder. School principals emphasized the use of a closed campus with increased supervision and the use of metal detectors to reduce drugs and violent crime (Cheurprakobkit & Bartsch, 2005). Several studies done by Welsh and colleagues (1999; 2001) introduced similar findings on a national level. Welsh et al. (1999) and Welsh (2001) concluded that 39% of U.S schools utilized metal detectors and 64% conducted random locker searches.

**The effectiveness of SCP strategies.** In their examination of nine SCP techniques, O'Neil and McGloin (2007) found that only three had a relationship to property crime, and one had a relationship to violent crime in schools. Specifically, schools that required students to stay on campus during lunch (i.e. a closed campus) witnessed an increase in property crime. Logically, this makes sense because containing students in an environment with little supervision creates the opportunity for disorder to

occur. The staff to student ratio is significantly decreased when students are not assigned to a specific classroom that is more manageable. Ironically, Cheurprakobkit and Bartsch (2005), concluded that a number of Texas middle and high schools utilize a closed campus in an effort to reduce disorder, when in fact it may increase the opportunity for disorder.

O'Neil and McGloin (2007) also indicated that fewer classroom changes resulted in less property crime and violent crime on school property. The fact that classroom changes allow a large number of students to be in the hallways at one time creates a situation where disorder is more likely to occur. Therefore, the authors suggest that reducing the number of classroom changes would also reduce the opportunity for acts of disorder to occur. This is because keeping students in classrooms with better supervision alters their opportunity structure. Overall, O'Neil and McGloin (2007) concluded that a majority of SCP tactics, as currently applied, do not work, and suggest that schools limit their use of these tactics.

Ballard and Brady (2007) uncovered that the use of metal detectors and security fencing, did not reduce crime in schools. The researchers established a baseline measure of crime in the schools before they implemented several SCP tactics. It was found that SCP tactics prevented crime levels from rising, but did not reduce the level of crime in the school that was present before the tactics were implemented. Although the majority of the schools in their sample used SCP tactics, superintendents generally believed that these strategies had little effect on crime levels (Ballard & Brady, 2007). Holding disorder constant, rather than allowing it to increase, is a start in making a campus safer.



Depending on the amount of disorder, some schools may need to decrease the level and not simply hold it constant.

**Implementation of SCP strategies.** Research has highlighted several concerns with the implementation of SCP measures in schools (Cheurprakobkit & Bartsch, 2005; O'Neill & McGloin, 2007). First, SCP measures can be a financial burden, and with little empirical support for their effectiveness, a low return on investment is likely (O'Neill & McGloin, 2007). Also, offenders have been known to adapt to environmental changes (i.e. SCP measures) that can lead to additional costs in order to keep measures in place (O'Neill & McGloin, 2007). Second, a student's right to privacy is often compromised when SCP measures are utilized (Cheurprakobkit & Bartsch, 2005). For example, random locker or person searches allow administrators to enter a student's personal space with minimal consent. Though the school has a right to search students and lockers in many cases, parents are often against such intrusive tactics against their children. Lastly, research has indicated the potential for crime to be displaced in other areas of the community that allow a greater opportunity for crime to occur (O'Neill & McGloin, 2007). This claim would suggest that school disorder is not reduced; it is simply shifted to another area of the community.

**Limitations to the use of SCP strategies.** Ballard and Brady (2007) and O'Neill and McGloin (2007) concluded that SCP measures continue to be implemented, often because of pressure from the media, but show little impact on reducing school disorder. Cheurprakobkit and Bartsch (2005) urged administrators to use SCP measures with caution because their use lacks systematic evaluation. With schools continuing to implement SCP tactics and very little empirical support, researchers have called for

studies that establish a baseline measure of disorder prior to implementation, and those that have the ability to isolate the direct relationship between SCP measures and disorder.

### **Educational-based Strategies to Reduce School Disorder**

Educational programs are delivered in an educational setting, such as a classroom, to convey pro-social behaviors to students (Farrell, Meyer, Kung, & Sullivan, 2001; Hahn, et al., 2007; Hall & Bacon, 2005; Time & Payne, 2008). Educational programs are aimed at teaching students the attitudes, knowledge and skills to reduce their involvement in disorder, whether as a victim, perpetrator or bystander (Farrell et al., 2001). Therefore, when students are confronted with situations that may lead to violence or other acts of disorder, they can respond in an appropriate fashion. For practical reasons, educational-based programs are typically delivered to a group of children in a classroom during the school day and use games, books, role playing and guest speakers to demonstrate alternatives to using violence and unacceptable forms of behavior. Educational-based programs are flexible and can be implemented in a number of ways, as well as to different groups of school-age youth.

**The use of educational-based strategies.** Educational-based programs are a common strategy because schools are a medium where social development and learning already occur (Astor, Meyer, Marachi, & Rosemond, 2005; Farrell et al., 2001; Gottfredson & Gottfredson, 2005; Hahn, et al., 2007; Hall & Bacon, 2005; Time & Payne, 2008). This makes educational programs a practical means for reducing incidents of disorder in schools. Farrell et al. (2001) noted that in the early 2000's, President Clinton and the United States Department of Health and Human Services called for the implementation of prevention curricula in 80% of U.S. schools. This declaration was, in

part, due to the events and follow-up investigations of the shootings at Columbine High School and may explain some of the increased popularity of educational-based programs within and among schools nationwide.

Gottfredson and Gottfredson (2005) found that prevention curricula are a common feature in schools and are introduced to address a variety of disorder incidents. In addition, different schools have been found to use different curricula aimed at reducing the same problem behavior. Astor et al. (2005) indicated that this diversity in educational programs among schools may be appropriate, since campuses are unique and often require customized programs. Other studies have compared the use of various techniques (i.e. SCP, legal, and educational) used by schools to reduce disorder and have found many schools are selecting educational programs over SCP measures (Hall & Bacon, 2005; Time & Payne, 2008). Time and Payne (2008) suggested this may be in response to the practical application that most educational-based programs provide in schools.

**The effectiveness of educational-based strategies.** Time and Payne (2008) found programs that included interaction between students and school staff members were the most effective at reducing disorder. Specifically, strategies that increased student communication skills and teacher-student relationships were most effective. The researchers hypothesized that the effectiveness was due to the students' development of trust in teachers. Once trust was established, students felt more comfortable contacting staff about problems they were engaged in or witnessed during school (Time & Payne, 2008). A similar study of third grade students in Florida concluded that those students who participated in a program that stressed conflict resolution, student communication and anger management skills were more likely to use pro-social behaviors when in a

confrontation with another student at school (Hall & Bacon, 2005). Gottfredson and Gottfredson (2005) indicated that schools with educational-based programs aimed at creating a stronger sense of discipline and a positive school climate are more likely to reduce disorder. In addition, Botvin and Griffin (2006) concluded that each problem behavior within a school does not require a separate or unique educational program. The root cause of many problem behaviors is poor school climate. Therefore, implementing an effective educational-based program aimed at improving school climate will have a positive effect on all problem behaviors.

Though the research conducted by Hall and Bacon (2005) and Time and Payne (2008) highlighted specific program components (i.e. communication skills and conflict resolution) as being instrumental in establishing an effective educational program, it is entirely possible that these components are constructs that contribute to overall school climate. Communication between staff and students, clarity of policies and procedures and parental involvement all have a role in school climate (National School Climate Center, 2012). Therefore, the findings of the researchers complement one another because the findings tie back to improving the school's overall climate. Although some educational-based programs have been shown to be effective in reducing school disorder, the research is inconclusive as to the specific components that make a program effective. It is hypothesized that the varying conclusions are due to the differences among campuses, and therefore each campus requires a customized program to suit their needs (Astor et al., 2005).

**Implementation of educational-based strategies.** Educational programs can be implemented on a universal or selective basis. Universal implementation occurs when all

students who attend a specific school receive the instruction, skills and/or information that pertain to the program. For example, every fifth grade class in the school district receives conflict resolution skills training. Selective implementation is when only a certain high-risk group of students receives the program, such as only providing the program to students who have been referred for disciplinary reasons three or more times in a six-month period. Farrell (2009) concluded that universal prevention programs showed only a small correlation in reducing disorder and the reduction only lasted a short period of time.

An unanticipated finding by Farrell (2009) was that over a longer period of time, levels of aggression in low-risk students tended to rise when a universal program was used. It was hypothesized that this may be due to the fact that universal intervention programs may produce a movement toward a group mean. This would suggest that students who have a low tendency to commit violent acts of disorder will increase violent behavior, and those who are highly likely to commit violent acts will see a decrease in violent behavior, thus bringing the two extremes closer together. This movement toward the mean is likely the result of exposing students to a program that addresses both acceptable and unacceptable behaviors. Given the findings, universal programs would work to benefit high-risk students by decreasing aggression, but would elevate levels of aggression in lower-risk students.

Farrell (2009) also examined selective prevention programs that targeted students who were at high-risk for engaging in violence. Results indicated that high-risk students who were socially influential and had completed the program witnessed reductions in their level of aggression. Additionally, an overall reduction in disorder among all

students occurred. Farrell (2009) suggested that selective prevention programs may have greater outcomes than universal programs. Simon et al. (2008) came to a similar conclusion and stated that selective programs were more effective than universal programs. Selective programs were found to have a greater effect on school climate and overall student disorder.

**Limitations to educational-based strategies.** Research has indicated that schools are in favor of using educational-based prevention programs to reduce disorder (Astor et al., 2005; Farrell et al., 2001; Gottfredson & Gottfredson, 2005; Hahn, et al., 2007; Hall & Bacon, 2005; Time & Payne, 2008). However, a majority of programs are being implemented without prior evaluation in terms of their effectiveness (Gottfredson & Gottfredson, 2005). Wilson, Gottfredson, and Najaka (2001) stated that even educational-based programs that have been subject to empirical review lack the degree of scientific rigor needed to ensure their effectiveness. Therefore, there is no way to conclude that many educational-based programs are effective at reducing disorder. The research reviewed in this paper represents a small portion of programs that have received rigorous empirical review. Due to the popularity and potential of educational-based programs in schools, more rigorous evaluation of these programs is needed (Hahn, et al., 2007).

### **Law Enforcement to Reduce School Disorder**

The first documented occurrence of a law enforcement officer assigned to an American school was in the late 1950's in Flint, Michigan (Coon & Travis, 2012; Cray & Weiler, 2011; Patterson, 2007; Weiler & Cray, 2011). The program was titled the "Police-School Liaison Program" and resulted from a shift in policing philosophy that

was centered on proactive crime prevention. At first, law enforcement officers were placed in only junior high schools, but after immediate success, officers were placed in senior high schools. Several states including Florida, Arizona, Minnesota and North Carolina, followed a similar shift in policing philosophy and began placing law enforcement officers in schools (Patterson, 2007).

In the 1960's, a police chief in Miami, Florida was credited with titling officers placed in schools as School Resource Officers (SROs). A SRO can be defined as a certified peace officer that is employed by the local law enforcement agency, county law enforcement agency, or school district with the goal of increasing safety and security for the school (Coon & Travis, 2012; Weiler & Cray, 2012). Though definitions of a SRO vary, almost all identify their main purpose as increasing safety and order in schools (Coon & Travis, 2012). By the late 1970's, there were approximately twenty school districts that utilized SROs, totaling an estimated 200 law enforcement officers in schools (Coon & Travis, 2012; Patterson, 2007).

**The use of law enforcement.** SRO programs in America did not gain prominence until the mid-to-late 1990's. The increase of youth violence and disorder accompanied by the tragic events that occurred at Columbine High School led to the increased use of law enforcement officers in schools (Coon & Travis, 2012; Kennedy, 2001; Patterson, 2007). The use of law enforcement is partly based on broken windows theory and zero tolerance with the idea of crime prevention and the minimization of minor incidents of disorder that could eventually escalate into major incidents of disorder. It was also thought that placing uniformed officers in schools would create a better relationship between youth and local police (Coon & Travis, 2012).

By the late 1990's, there were an estimated 2,000 SROs in American schools (Coon & Travis, 2012). Kim and Geronimo (2010) concluded that in 2005, approximately 70% of students surveyed indicated the presence of law enforcement officers in their school. Similarly, Na and Gottfredson (2011) examined data from the *2007 National Crime Victimization Survey: School Safety Supplement*, and concluded that 69% of students (aged 12- 18) indicated a law enforcement officer was assigned to their school. In addition, 67% of teachers reported the presence of assigned law enforcement officers in the schools in which they work. Recent studies have estimated that over 17,000 officers across the nation are assigned to schools (Coon & Travis, 2012; Na & Gottfredson, 2011).

The increased use of SROs can partially be attributed to the funding made available for such programs by the federal government. Two major events occurred in 1994 that initiated the funding for SROs. First, the establishment of the Office of Community Oriented Policing Services (COPS), by then Attorney General Janet Reno, was monumental in establishing funding for SROs. Under the Public Safety Partnership and Community Policing Act, Reno created the office that would oversee the implementation, sustainability and evaluation of all community oriented policing efforts (Patterson, 2007). In 1999, the COPS office created the "COPS for Schools" grant program to specifically increase the number of law enforcement officers in schools. The second major event was the passing of the Safe Schools Act of 1994, which allowed school officials to use a portion of federal grants for school security related measures, including police and surveillance (Brady et al., 2007).



By 2005, the COPS office had funded the addition of over 6,500 law enforcement officers to American schools (Coon & Travis, 2012). The office awarded over \$753 million to more than 3,000 grantees to hire, train and sustain law enforcement officers in schools for a three-year period under the “COPS in School” program (Patterson, 2007). The COPS office notion was to support the implementation of SRO programs, and after three years the school district and/or local law enforcement departments would be able to continue the program. The office awarded another \$10 million to hire SROs under the “Safe Schools Healthy Students” program (Na & Gottfredson, 2011). The office continued to support the hiring and training of SROs under various federal initiatives for much of the early 2000’s.

**The effectiveness of law enforcement.** Research has indicated that the use of law enforcement officers by schools to reduce disorder has increased since its inception (Coon & Travis, 2012; Kennedy, 2001; Patterson, 2007). Therefore, an examination of the empirical research regarding the effectiveness of using law enforcement officers in schools for the purpose of reducing school disorder is warranted. Johnson (1999) published the first evaluation of an SRO program and attempted to answer the question, “Are SRO programs successful in reducing school disorder and increasing school safety?” Johnson (1999) compared the number of discipline referrals prior to the implementation of an SRO program to the number of discipline referrals after the implementation of the program in several schools. Every school included in the study witnessed a decrease in serious acts of disorder. Na and Gottfredson (2011) discredited the conclusions due to a lack of a non-SRO comparison group.

Only two studies to date have examined the effectiveness of SROs while utilizing a non-SRO comparison group (Jackson, 2002; Theriot, 2009). Theriot (2009) concluded that the use of SROs increased the likelihood of arrest for minor offenses, but decreased the likelihood of arrest for major offenses. Contrary to these findings, Jackson (2002) reported that SROs had no effect on a student's decision whether or not to commit an act of disorder in school. Na and Gottfredson (2011) again discredited the findings of both studies based on a low sample size and the lack of a viable measure for student behavior.

Studies have also attempted to evaluate law enforcement effectiveness based on staff and student perceptions of safety. Johnson (1999) interviewed school staff and students and concluded perceptions of safety increased when an SRO program was implemented. Similarly, Kennedy (2004) concluded that police presence made communities feel safer, and school communities are no different than the broader community. Using data from a 2001 National Association of School Resource Officers survey of SROs, Kennedy (2004) concluded that 92% of officers have prevented at least one act of violence. In addition, 94% of the SROs surveyed believed their presence increased the reporting of violent acts of disorder. Based on this research, it can be concluded that SRO programs, when implemented and maintained properly, increase perceptions of safety and decrease acts of disorder (Kennedy, 2004; Johnson, 1999).

However, contrary to these conclusions are the findings of Na and Gottfredson (2011). The authors surveyed a national sample of school stakeholders to gather their perceptions of the effectiveness of SRO programs in their schools. There was no evidence that supported the effectiveness of SROs in terms of increasing school safety or reducing incidents of disorder. In addition, Na and Gottfredson (2011) stated that the use of law

enforcement increased reporting for minor offenses, but did not increase incident reporting for serious offenses among staff and students. Similarly, Brady et al., (2007) found that despite the increased use of law enforcement in New York schools, students and staff still experienced poor perceptions of safety. In addition, acts of disorder have not been affected by the use of law enforcement in schools.

**Implementing an SRO program.** Research has highlighted implementation models and issues that must be considered prior to implementation (Clark, 2011; Coon & Travis, 2012; Finn, Townsend, Shively, & Rich, 2003; Kennedy, 2001; McDaniel, 2001). The most documented and accepted implementation model is the “triad model.” This model provides law enforcement officers working in schools with three main functions: 1) enforcement, 2) education and 3) mentoring (Kennedy, 2001). Enforcement is the most common duty for an SRO, and consists of crime prevention efforts, discipline and/or apprehension of violators. Coon and Travis (2012) found that 93% of SROs and 73% of school administrators concluded that the main function of the SRO was enforcement activities. Activities such as patrolling the campus, operating metal detectors and conducting safety inspections are all enforcement-based. Similarly, McDaniel (2001) found that approximately half of an SRO’s time is spent in a law enforcement role. Education consists of SROs teaching students in the classroom on a variety of topics such as anti-drugs and alcohol, crime prevention and DUI prevention. Coon and Travis (2012) found that 53% of SROs taught DARE, 35% taught alcohol awareness and 26% taught crime prevention. Mentoring occurs when law enforcement officers assist families and students with discipline issues. Regardless of whether the youth is a victim, perpetrator, or bystander, students receive some type of guidance by the

SRO. Coon and Travis (2012) found that 64% of schools involved their SROs in some form of mentoring or coaching.

There are two implementation issues that must be addressed prior to implementing an SRO program. First, the roles of the SRO must be clearly defined and understood by all school staff, but most importantly by the school administration (Clark, 2011; Finn et al., 2003). Defining officer roles in the school is especially important in terms of rule and/or law enforcement. Schools typically operate under their own code of conduct, but SROs are likely to enforce criminal law (Clark, 2011). How the officer is to enforce the school code of conduct while balancing his or her duty to uphold the law must be discussed. In addition, Finn et al. (2003) suggested that the roles and responsibilities of the SROs be in writing, developed in conjunction with school administration, reviewed and updated regularly, and resolved through a formal role dispute process.

Second, the SRO must receive training that is specific to his/her role in the school. Clark (2011) highlighted that training provided in a standard police academy is not suitable for an officer working in a school. The most important gap in training has to do with the ability of the officer to tolerate large crowds of youth that are often noisy and disrespectful. Finn et al. (2003) indicated that few programs provide adequate training and many provide none at all. Training programs should provide instruction on teaching classes, the skills needed to work collaboratively with the school administration, and the proper application of juvenile laws and case law. Finn et al. (2003) also highlighted several programs that mandate new SROs “shadow” more experienced SROs or attend a basic SRO training class prior to being assigned to a school.

**Limitations to the use of law enforcement.** The effectiveness of law enforcement officers in terms of reducing disorder in schools is widely unknown (Na & Gottfredson, 2011; Raymond, 2010). McDaniel (2001) stated little is known about SRO programs because researchers have been unable to quantify the effects of police in schools. In addition, Raymond (2010) stated that even though SRO programs are widely used in schools, few studies are available that successfully evaluate the effectiveness of the program. Na and Gottfredson (2011) concluded that even national assessments of SRO programs fail to meet rigorous research standards. Much of the research on SROs is descriptive in nature, providing mostly informative conclusions such as traits of a good SRO, daily tasks for an SRO, and how to begin an SRO program (Raymond, 2010). The research methods employed in previous studies are not suitable to determine cause and effect. The lack of evidence in support of effectiveness is in itself a major limitation to the use of law enforcement in schools.

### **Issues with Current Prevention Strategies**

There are two major issues that resonate across the three major strategies (SCP, educational, and law enforcement strategies) used by schools to reduce disorder. First, the effectiveness of prevention strategies being used by schools is largely unknown (Cheurprakobkit & Bartsch, 2005; Ballard & Brady, 2007; Gottfredson & Gottfredson, 2005; McDaniel, 2001; Na & Gottfredson, 2011; O'Neill & McGloin, 2007; Raymond, 2010; Wilson et al., 2001). However, schools continue to implement these strategies with minimal, if any, empirical support. Evidence is needed to guide schools in choosing appropriate and effective measures to prevent and reduce incidents of school disorder (Na

& Gottfredson, 2011). Therefore, it is critical that future research evaluates the relationships between these prevention measures and levels of disorder.

Second, the empirical research conducted thus far to assess the effectiveness of prevention strategies suffers from inadequate research methods and a lack of rigor (Na & Gottfredson, 2011; Wilson et al., 2001). Much of the existing literature on the strategies used to reduce disorder is descriptive in nature and the research methods employed are not suitable to determine cause and effect (i.e. effectiveness). The lack of research-based evaluation creates a gap in the existing literature and hinders progress towards the intended goal of creating safe and effective learning environments in schools. Developing prevention strategies that have been appropriately assessed will help ensure schools are not investing in strategies that do little to make their campuses safer.

### **Massachusetts Study: School Violence and Policy Responses: An Analysis of Massachusetts Schools**

In an effort to close the gap in the existing literature and move towards the goal of safe and secure schools, the current researcher conducted a study in Massachusetts (*School Violence and Policy Responses: An Analysis of Massachusetts Schools*) that examined the relationships between levels of disorder, strategies used to prevent disorder, and school characteristics (McKenna, 2010). Massachusetts school principals (n=204) responded to a survey and provided information about their school's level of disorder, strategies used to prevent such behaviors, and their campus environment. Analysis of the data revealed a positive relationship between SCP measures and levels of disorder. In general, the findings suggest the more SCP measures a school uses, the more

disorder they will have, or vice versa. Logically, this finding may not carry much value, but it does create some skepticism in the use of these strategies. The relationship between school disorder and educational-based programs produced no significant relationship in either level of analysis (bivariate or multivariate). Several variables including community type, grade level, the number of classroom changes, and the amount of crime in the surrounding community demonstrated positive relationships with school disorder. The use of law enforcement was not examined in the Massachusetts study.

## **CHAPTER III**

### **RESEARCH QUESTIONS AND HYPOTHESES**

To establish the effectiveness of strategies used to prevent school disorder, research must first identify relationships between strategies and levels of disorder in order to guide more in depth research. Therefore, the goals of the present study are to 1) identify the strategies schools in Texas are using to prevent incidents of disorder and 2) isolate relationships between the strategies being used and school disorder. Specifically, this study will identify relationships between the strategies used to prevent school disorder (i.e. SCP measures, educational programs, and the use of law enforcement), the characteristics of a school's environment (i.e. community type, grade level, crime level in the surrounding community, and number of classroom changes), and the current levels of disorder in Texas public schools. The data collected will provide preliminary evidence on the types of strategies currently being used in Texas schools and guide future research that evaluates the effectiveness of such strategies. The following findings are hypothesized:

- a) SCP measures will have a positive relationship with levels of disorder (the more SCP techniques, the higher the level of disorder);
- b) Educational-based programs will have no significant relationship with levels of disorder;
- c) The presence of law enforcement will have a negative relationship (the increased use in law enforcement, the lower the level of disorder) with levels of disorder; and



- d) Environmental factors such as, the number of classroom changes and the crime level of the immediate community (within 1 mile) will have strong relationships with levels of disorder.

## **CHAPTER IV**

### **METHODOLOGY**

#### **Setting of the Research**

The setting of this research is solely online. Participants were asked to answer and submit responses electronically through an online software program (Qualtrics Research Suite). The Qualtrics software allows a researcher to create a questionnaire with a variety of question types, utilize complex logic patterns within the questionnaire construction, and deliver the questionnaire to potential respondents in a number of formats. It also collects and stores data with a username and password that can later be exported to various statistical software packages (e.g. SPSS or SAS). Each survey created is hosted on Qualtrics.com with a URL that is unique to that survey (more information regarding the survey program can be found at <http://www.qualtrics.com>). The software program was open for responses from May 5, 2012 until October 14, 2012.

#### **Participant Population**

A list of all school campuses in Texas, including principal contact information and other demographic items was constructed. The list of campuses was compiled using resources and data sets provided by the Texas School Safety Center (TxSSC) and the Texas Education Agency (TEA). The various data sets were reviewed for entry errors, inconsistencies, and duplicates. Once all issues were resolved, the data sets were

combined to create a list of all school campuses in the state of Texas. The list contained over 10,000 school campuses. Several actions were taken before the list was sufficient to serve as the participant population in the current research. For the purpose of this research, only public school campuses were of interest; therefore all non-public schools (i.e. charter, private, religious based schools, etc.) were removed. Removing non-public schools reduced the number of campuses to 8,671. In addition, a set of parameters was established by the researcher to further ensure the desired population was obtained. The researcher sought campuses that provided regular instruction only, encompassed grades K-12, and had an enrollment of 50 or more students. All campuses that provided instruction types other than regular instruction, as classified by TEA (i.e. alternative/discipline schools, those run by the department of corrections, etc.), contained grades outside of the K-12 realm (i.e. early education, preschool, undergraduate, etc.), or recorded an enrollment below 50 students were removed from the list. A total of 7,008 campuses remained and served as the participant population.

### **Participant Sample**

A stratified random sampling method was utilized in the research to generate a random sample from the participant population. The rationale for dividing campuses into strata is based on the prior Massachusetts study conducted by the researcher, where grade level and community type were found to be strong predictors of school disorder (McKenna, 2010). In addition, this method ensured that the sample was representative of all schools in Texas and allowed for generalization of the results.

Campuses were stratified based on the community type in which they were located and the grade level(s) they contained. The TEA classifies each district (which is

applied to each campus in the district) as Major Urban, Major Suburban, Other Central City, Other Central City Suburban, Independent Town, Non-Metropolitan Fast Growing, Non-Metropolitan Stable, or Rural based on the number of students enrolled in the district, the population of the county or counties, and other economic variables. For the purposes of this study, campuses classified as Independent Town, Non-Metropolitan-Fast Growing, Non-Metropolitan-Stable, Other Central City, and Other Central City Suburban were combined into one community type and labeled “Other.” The decision to combine certain community types was in part due to the similarities between the community types selected, as well as an effort to establish a manageable number of strata for analysis. By using the community type classifications established by the TEA, it ensured a well-established measure was utilized in the study. For specific criteria used by the TEA to establish community type classifications, see

<http://www.tea.state.tx.us/acctres/analyze/0910/level.html>.

Grade level categories were established by the research and are as follows: “Elementary” (kindergarten to fifth grade), “Middle” (sixth to eighth grade), “High” (ninth to twelfth grade), and “Combined Levels” (any combination of kindergarten to twelfth that does not fall solely within one of the categories). These categories and the specific grade ranges were chosen because a majority of campuses in the population fit into one of the three categories (elementary, middle, or high). These grade level categories are well-established plateaus in primary and secondary education and are understood by campus principals. Choosing this measure of grade level ensured clarity and understanding of the respondents. Dividing campuses into strata based on grade level (four types) and community type (four types) resulted in 16 strata. Table 1 shows

the community type classification and grade level category for each of the 16 strata.

**Table 1. Community Type and Grade Level by Strata**

<b>Strata Number</b>	<b>Grade level/Community Type</b>	<b>Strata Number</b>	<b>Grade level/Community Type</b>
<b>1</b>	Combined/Other	<b>9</b>	High/Other
<b>2</b>	Combined/Major Suburban	<b>10</b>	High/Major Suburban
<b>3</b>	Combined/ Major Urban	<b>11</b>	High/ Major Urban
<b>4</b>	Combined/Rural	<b>12</b>	High/Rural
<b>5</b>	Elementary/Other	<b>13</b>	Middle/Other
<b>6</b>	Elementary/Major Suburban	<b>14</b>	Middle/Major Suburban
<b>7</b>	Elementary/ Major Urban	<b>15</b>	Middle/Major Urban
<b>8</b>	Elementary/ Rural	<b>16</b>	Middle/Rural

From each of the strata, a randomized list of campuses was generated and ultimately combined and used as the final sample for the research. The randomized selection of campuses was completed by utilizing the Statistical Package for the Social Sciences (SPSS) software. The list of campuses in each stratum was entered into SPSS separately. A confidence level of 95% was used to select the number of campuses from each stratum that would be included in the sample. This level of precision (95%) ensured that if a random sample of the same participant population was taken again, the second sample would have the same population parameters (i.e. mean) as the first, approximately 95% of the time. Once in SPSS, the “select cases” function was used to randomly select the desired number of cases. The selection process was repeated for each of the 16 strata. After a randomized list was constructed for all 16 strata, the lists were combined into the same Excel spreadsheet and used as the final participant sample. A total of 2,276 campuses were included in the final sample. Table 2 shows the number of campuses in each of the 16 strata and the number of campuses randomly selected to be included in the participant sample.

**Table 2. Total Number of Campuses and Total Number of Randomly Selected Campuses per Strata**

<b>Strata Number</b>	<b>Total Number of Campuses</b>	<b>Total Number of Randomly Selected Cases</b>	<b>Strata Number</b>	<b>Total Number of Campuses</b>	<b>Total Number of Randomly Selected Cases</b>
<b>1</b>	368	156	<b>9</b>	592	184
<b>2</b>	186	109	<b>10</b>	228	123
<b>3</b>	181	108	<b>11</b>	155	96
<b>4</b>	398	160	<b>12</b>	128	87
<b>5</b>	1668	231	<b>13</b>	653	190
<b>6</b>	1030	212	<b>14</b>	355	153
<b>7</b>	626	188	<b>15</b>	197	114
<b>8</b>	150	96	<b>16</b>	93	69

## Questionnaire

The instrument created and used to collect the data from participants was based on a questionnaire created by the National Center for Education Statistics (NES) (Chandler, Chaney, Chowdhury, Chu, Lee, & Wobus, 2003). This questionnaire titled *School Survey on Crime and Safety (SSOCS)* was administered by NES to a national sample of school principals during five school years (1999-2000, 2003-2004, 2005-2006, 2007-2008, and 2009-2010) in an effort to answer questions similar to the current study. The NES continues to administer the survey in every even numbered school year. The survey collects data from over 3,000 respondents in areas such as disciplinary problems and actions, school security, staff training, parent involvement at school, and other variables related to school violence. The SSOCS serves as the primary source of school-level data on crime and safety for the United States. More information regarding this questionnaire can be found at <http://nces.ed.gov/surveys/ssocs/>.

Changes were made to the original questionnaire in order to reflect and include the current research objectives. Changes included adding items pertaining to bullying/cyber bullying and eliminating questions that were beyond the scope of this research. All items included in the current questionnaire focused on events, incidents, and/or conditions during the 2011-2012 school year. As previously mentioned, 16 duplicate versions of the questionnaire were created in the online reporting system to allow for an effective coding system to be utilized. A list of definitions was included at the beginning of the questionnaire in an effort to provide clarity and understanding of key terms. The questionnaire used in the current research contained six sections and included 67 items in total (see Appendix B for a copy of the questionnaire).

The first section evaluated the types of strategies used by Texas schools to alter the school's physical environment (i.e. locking doors or gates, metal detectors, and the use of security cameras) in an effort to prevent incidents of disorder. These techniques are referred to as situational crime prevention measures. The question, *"During the 2011-2012 school year, was it a practice at your school to do the following?"* was posed with several possible response items listed thereafter. A total of 13 items (e.g. Use one or more security cameras to monitor the school grounds and Control access to school buildings during school hours) required an individual "yes" or "no" response.

The second section measured the strategies used to contest incidents of disorder that have an educational or classroom-based learning component (e.g. prevention curriculum and mandatory bullying education classes). The question, *"During the 2011-2012 school year, were there any formal program at your school intended to prevent or reduce disorder that included the following components for students?"* was asked. Seventeen items followed, in a "yes" or "no" format, that aimed to identify both student and staff educational programs used to prevent disorder (e.g. Crime Prevention curriculum, instruction, or training).

The third section assessed the use of law enforcement officers on campuses to prevent school disorder. A total of 11 questions were asked in this section, with six being in a "yes" or "no", format and the remaining five requiring respondents to type their response. The first question asked *"During the 2011-2012 school year, were paid law enforcement officers used at your school? This may include the school district's own law enforcement department (ISD Police) or services provided by county or local agencies, in which the district or school pays part or all of the officers' salary."* If the respondent



answered “no”, they were brought to section four and omitted the rest of section three. If the respondent answered “yes”, several questions followed regarding the duties of law enforcement on the campus, the times they were present on campus, and how frequently they participated in certain actions.

The fourth section assessed the level of disorder in each school by asking participants to identify how often certain incidents occurred in their schools. The question, “*How often did the following types of incidents occur at your school during the 2011-2012 school year?*” was asked at the beginning of section four. Twenty statements followed, all of which characterized an incident of school disorder. “Threats of physical attack” and “Vandalism” are examples of incidents of disorder that were included in the questionnaire. Respondents were to answer each item on a continuum of “Never happened”, “Happened at least once a semester” “Happened at least once a month”, “Happened at least once a week”, or “Happened daily.” This measure acted as the dependent variable— Total School Disorder – for the study.

The fifth section asked participants to answer two questions regarding their school’s environment. Specifically, “*How many classroom changes did most students make in a typical day, at your school, during the 2011-2012 school year?*” and “*How would you describe the crime level in the immediate area surrounding the school (within a one mile radius)?*” were asked. Each question was asked in a multiple choice format. The final section collected basic information on the respondent. Questions in the final section were also asked in a multiple choice format and aimed to identify the respondent’s position at the school, how long they had been in the current position, and other demographic information.

**Respondents**

As the administrator who regularly handles issues of safety and security, campus principals were chosen as the primary questionnaire respondent. Their perspectives are of critical importance when school disorder and the strategies used to prevent these problems are identified and evaluated. However, it is entirely possible that a principal designated another school employee (e.g. Emergency Management Coordinator, assistant or vice principal) to fill out the questionnaire. This individual may have been previously assigned by the principal to handle issues of safety, security, and disorder for the campus, and would be the more appropriate employee to answer the questionnaire. To account for this possible reassignment, the questionnaire required respondents to identify their current position at the school.

**Sampling Error and Re-Sample**

Several weeks into the data collection phase of the study, an error in sampling was identified. Specifically, the researcher discovered a coding system was not established to identify responses from each stratum. When questionnaires were completed and submitted, there was no way to identify the respondent's community type or grade level category, thus negating the stratified sampling method used. As previously discussed, the stratified random sample is of great importance to the research study. It was determined the only way to correct the error was to discontinue the questionnaire, re-sample from the remaining campuses (removing those campuses sampled previously), and establish a coding system that would allow for the grade level category and community type classification to be known after submission, while still ensuring anonymity to campuses and principals.

The original questionnaire was discontinued on July 25, 2012. All data collected up until that point (254 responses) were exported to SPSS from the online software program and saved for later use. The participant population (7,008 campuses) was then revisited. The 2,276 campuses that previously served as the participant sample were removed from the population. This was accomplished by using Microsoft Excel's formula function. A macros formula was used to identify the campuses included in the participant sample (Excel Column A), and then removed them from the participant population (Excel Column B). Removing these campuses was necessary to ensure that no principal had responded to the questionnaire, been debriefed, and was then included in the new sample. This eliminated the potential of a principal being surveyed in both the original sample and the re-sample. Once the 2,276 campuses were removed, a total of 4,732 campuses remained.

Rather than generating a random sample from the 4,732 campuses, it was decided that all remaining campuses would be utilized in the research for two reasons. First, several strata had low numbers of campuses remaining, and in order to ensure enough data could be collected for the purpose of analysis, all campuses needed to be surveyed. Second, the remaining 4,732 campuses were, in a sense, already a random sample. Previously, a sample of 2,276 campuses was randomly generated and removed from the participant population, making the remaining 4,732 random by association. The community type classification and grade level category for each of the 16 strata remains consistent with the original designation (refer back to Table 1). Table 3 shows the number of campuses remaining in each of the 16 strata that were included in the re-sample.

**Table 3. Number of Campuses in Re-Sample per Strata**

<b>Strata Number</b>	<b>Number of Campuses</b>	<b>Strata Number</b>	<b>Number of Campuses</b>
<b>1</b>	212	<b>9</b>	408
<b>2</b>	77	<b>10</b>	105
<b>3</b>	73	<b>11</b>	59
<b>4</b>	238	<b>12</b>	41
<b>5</b>	1437	<b>13</b>	463
<b>6</b>	818	<b>14</b>	202
<b>7</b>	438	<b>15</b>	83
<b>8</b>	54	<b>16</b>	24

### **Questionnaire Coding System**

To avoid a similar error that occurred in the first data collection attempt, a coding system was established. The researcher decided to deliver the questionnaire by individual stratum instead of to the entire sample as one group (as was done previously). This required 16 duplicate copies of the questionnaire to be created in the online system. Each copy of the questionnaire was then given a different identifiable label by placing a number in the title (ranging from 1-16). For example, the titles would read “School Disorder and the Current Strategies Utilized: An Analysis of Texas Schools-1”, “School Disorder and the Current Strategies Utilized: An Analysis of Texas School-2”, and so on, until there were 16 copies. Each stratum was then given an identification number that matched a copy of the questionnaire. This allowed for the copies of the questionnaire to be differentiated in terms of community type and grade level category when submitted by a respondent.

For instance, the stratum with the identification number one (1) was made up of campuses that had “combined grade levels” and were classified as “other” in regards to the community type. The questionnaire containing the number one (1) was then sent to

all campuses in stratum one (1). All returned questionnaires from this stratum would have a number one (1) in the title, thus allowing the researcher to conclude that all respondents were from campuses with combined grade levels and located in a community type labeled “other.” This coding system made it possible for the researcher to identify the respondent’s community type and grade level(s) without sacrificing anonymity.

Alternative coding mechanisms were considered, but the method chosen was thought to be the most suitable for the research. For example, adding items in the questionnaire that asked the respondent to provide grade level(s) contained in the campus and the community type of the campus was considered. It was decided this method provided an opportunity for error when considering the possibility that respondents may not classify themselves as they have been stratified by the researcher. For instance, a principal may believe their campus is in a rural area, when in fact the TEA has classified the campus as another community type. This reporting error would jeopardize and potentially invalidate the use of the stratified random sampling method.

## **Procedures**

The procedures presented below pertain only to the second attempt at data collection (after the sampling error), though similar procedures were followed in the first and initial administration of the questionnaire. On August 6<sup>th</sup>, 2012, an introductory letter was sent via email to every principal in the sample asking for their participation in the research study (see Appendix D). Each email was personally addressed to the principal of the campus, and not sent as a “blast” email with a generic greeting to all principals in the sample. The introductory letter introduced the researcher and the institutional affiliation, provided justification for conducting the research, and delivered

instructions for accessing and completing the online questionnaire. Specifically, participants were instructed to click on the hyperlink contained in the email and follow all the directions thereafter. By clicking the link, the participants would be taken to the online questionnaire hosted at Qualtrics.com.

An online consent form was used to obtain voluntary participation from participants (see Appendix A). The consent form appeared immediately upon clicking the hyperlink to the online questionnaire. Prior to gaining access to the questionnaire, participants were asked to check the box indicating their consent to participate. If participants indicated they did not want to give voluntary consent, the online system would direct them to the final page of the questionnaire, which thanked participants for their time. Those who chose to consent were given access to the questionnaire. Contact information for the researcher was provided in the consent form to ensure participants could make contact with the researcher if necessary. After the questionnaire was completed, a debriefing sheet was made available to further explain the research and again provide contact information for the researcher to assist in answering any follow-up questions from the participants (see Appendix C).

Several measures were taken to ensure the online questionnaire was delivered in the most effective fashion. First, the hyperlink to the questionnaire was provided in all emails, because past research has demonstrated the effectiveness of placing the hyperlink within the email (Wright & Schwager, 2008). Wright and Schwager (2008) concluded that participants who receive the hyperlink within the email responded more frequently when compared to all other methods of delivering an online survey. Second, personalized emails were sent in an effort to make the process of email more personal

(Dillman, Tortora, & Bowker, 1998). In addition, the research design explicitly did not use a “bulk email” option in an effort to reduce the likelihood the email was identified as “spam” by email filters or discarded by participants. Finally, reminder emails were used throughout the data collection phase of the research. Crawford, Couper, and Lamiasm (2001) concluded that reminder emails are important in keeping potential participants, who may delay in completing the survey, aware that you would still like them to participate.

Several correspondences (i.e. email reminders) were made during the allotted reporting period to encourage participation in the study. Specifically, participants received an email reminder approximately once a month (August 27, 2012; September 17, 2012; October 1, 2012; and October 10, 2012) that again contained contact information for the researcher, provided justification for the research, and delivered instructions for accessing and completing the online questionnaire (see Appendix E). Every attempt was made to obtain and correct missing and/or invalid contact information on potential respondents throughout the data collection phase of the study. Specifically, after every email reminder, a report of invalid email addresses and those blocked by security software was reviewed and all efforts were made to resolve the issues identified. This included looking up email addresses individually by visiting district and campus websites, contacting districts regarding their security software, and making phone calls to districts in hopes to receive accurate contact information.

Throughout the course of data collection, a total of 15 districts were identified that had external research policies requiring the researcher to obtain approval from the district before campuses could participate. These policies were often brought to the attention of

the researcher by an email stating participants could not participate unless a letter indicating approval from the district was provided. District approval procedures were handled as presented and often required the completion and submission of detailed forms outlining the research methodology, signatures guaranteeing research ethics and confidentiality, and a list of campuses and individuals to be included in the research. In addition, several districts required a fee to have the application reviewed. Because the forms required similar information, but were all organized differently, it required each to be filled out independently. The length of the review process varied greatly from one day to three months. In total, 10 of the 15 districts granted approval for the research to be conducted in their campuses. Some compromises were made, such as limiting the number of campuses contacted in the district, or not contacting certain campuses identified by the district.



## **CHAPTER V**

### **MEASURES**

#### **Total Situational Crime Prevention (TotalSCP)**

The Total Situational Crime Prevention (TotalSCP) measure is the total number of SCP strategies present at each campus. A total of thirteen items were included in the questionnaire that represented SCP measures aimed at reducing disorder. Each item required a “Yes” or “No” response from the campus principal. Each response was assigned a numerical value (No=0 Yes=1). Therefore, the measure ranged from 0 (no SCP measures used) to 13 (all SCP used). For example, if a school indicated they controlled access to the building, used security cameras, and required students to use clear backpacks, the TotalSCP would be 3.

#### **Total Student Programs (TotalStud)**

The Total Student Programs (TotalStud) measure represents all programs for students aimed at reducing disorder present at a campus. There were a total of eight items in the questionnaire that addressed student programs. Each item required a “Yes” or “No” response from the campus principal. Each response was assigned a numerical value (No=0 Yes=1). Therefore, the range for this measure was 0-8. For example, if a respondent indicated the school had a bullying prevention program for students and counseling services for students, the TotalStud value would be 2.

### **Total Staff Programs (TotalStaff)**

The Total Staff Programs (TotalStaff) measure was constructed similar to the previous measures. The total number of staff programs aimed at reducing disorder was summed for each respondent and the value represented the TotalStaff. There were eight items in the questionnaire that represented staff programs. Each item required a “Yes” or “No” response from the campus principal. Each response was assigned a numerical value (No=0 Yes=1). The range for this measure was 0-8. A value of 0 would indicate no staff programs were offered that aimed to reduce disorder, whereas a value of 8 would indicate all staff programs were used in a specific campus.

### **Use of Law Enforcement**

To measure the use of law enforcement in a specific campus, the question *“During the 2011-2012 school year, were paid law enforcement officers used at your school?”* was posed. Respondents were given the answer choices of “Yes” (1) or “No” (0). Additional questions were also asked to those respondents indicating the use of law enforcement at their campus. The questions and corresponding results addressing the use of law enforcement will be discussed later in the Analysis section (see p. 46).

### **Community Crime Level**

To determine the crime level in the immediate area surrounding the school campus respondents were asked *“How would you describe the crime level in the immediate area surrounding the school (Within a one mile radius)?”* Respondents were given four answer choices: “High” (1), “Moderate” (2), “Low” (3), and “Mixed (4).” This variable serves as one of two environmental variables. In this research, environmental variables refer to a construct that is part of the school community and is

not necessarily controlled by the school in an effort to prevent incidents of disorder but may have an influence.

### **Number of Classroom Changes**

To measure the number of classroom changes that take place on a typical school day within each campus, respondents were asked “*How many classroom changes did most students make in a typical day, at your school, during the 2011-2012 school year?*” Respondents were to select from 0 (1), 1-3 (2), 4-6 (3), or 6+ (4) classroom changes. The number of classroom changes is the second of two environmental variables examined in the analyses.

### **Total Disorder (TotalDis)**

A total of 20 items were included in the questionnaire that inquired about acts of disorder at a specific campus. Each item required the respondent to indicate how often the act occurred on their campus. A likert scale was used to determine the frequency of each event. Respondents were to answer each item on a continuum of “Never happened” (0), “Happened at least once a semester” (1), “Happened at least once a month” (2), “Happened at least once a week” (3), or “Happened daily” (4). Each response was assigned an increasing numerical value that corresponded to the increase in frequency. For example, “Never happened” would be coded as 0 and “Happened daily” would be given a value of 4. The values for each item were totaled to represent the TotalDis value. This measure acted as the dependent variable for the study.

### **Control Measures**

As discussed previously (see Participant Sample section), campuses were stratified by grade level and community type. The grade level and community type of

each campus was pre-assigned by the researcher in order to construct the strata before sampling. Due to campuses being stratified on these characteristics, these variables serve as control measures in the analysis. Holding grade level and community type constant (no variation between respondents) for each stratum allows for the impact of these factors on the level of disorder to be negated. These measures have been found to have a significant relationship with levels of disorder (McKenna, 2010), but often provide no practical solution to prevent and/or respond to disorder. For example, a campus is unlikely to alter the grade levels it serves or relocate to an alternate community type as an effort to prevent disorder. Therefore, controlling for such variables and examining more practical strategies to disorder will allow for relationships to be identified that are not impacted by the grade level and community type of a campus.

## **CHAPTER VI**

### **ANALYSIS**

Out of a potential 4,732 (participant sample) respondents, a total of 4,129 introductory emails and subsequent follow-up emails were successfully delivered. The 603 participants (i.e. 4,732-4,129) that were unreachable were ultimately removed from the sample. The 603 participants were unreachable for a number of reasons, including security software of recipient made email correspondence undeliverable and email addresses provided by TEA were no longer valid (i.e. the principal no longer worked for the district). Several steps, including searching websites of individual campuses/districts and contacting campuses/districts by phone to obtain accurate contact information failed to resolve correspondence issues, resulting in the 603 participants being removed. As a result, there were a total of 4,129 potential respondents ( $N=4,129$ ).

A total of 583 questionnaires had been received at the time data collection was closed on October 14, 2012. Upon further examination of the data, forty-five questionnaires were removed because they were more than 50% incomplete. This left a total of 538 usable questionnaires. The 538 usable questionnaires represent a response rate of 13.0% ( $538/4,129$ ). The response rates per strata are provided in Table 4. The low overall response rate is consistent with research which states that web-based surveys have shown to have much lower response rates than traditional mail surveys (Crawford, Couper, & Lamiasm, 2001; Wright & Schwager 2008). According to prior research,

online response rates typically average 16.5% (Wright & Schwager, 2008). The response rate in the current research is slightly lower, and may be attributable to limitations that will be discussed later in the Discussion section (see p. 94).

**Table 4. Response Rate by Stratum**

<b>Strata Number</b>	<b>Response Rate</b>	<b>Strata Number</b>	<b>Response Rate</b>
<b>1</b>	25/206=12.1%	<b>9</b>	67/390=17.2%
<b>2</b>	6/75=8.0%	<b>10</b>	16/102=15.7%
<b>3</b>	5/53=9.4%	<b>11</b>	3/32=9.4%
<b>4</b>	40/229=17.5%	<b>12</b>	6/41=14.6%
<b>5</b>	172/1359=12.7%	<b>13</b>	62/436=14.2%
<b>6</b>	66/692=9.5%	<b>14</b>	29/181=16.0%
<b>7</b>	24/207=11.6%	<b>15</b>	5/48=10.4%
<b>8</b>	7/54=13.0%	<b>16</b>	5/24=20.8%

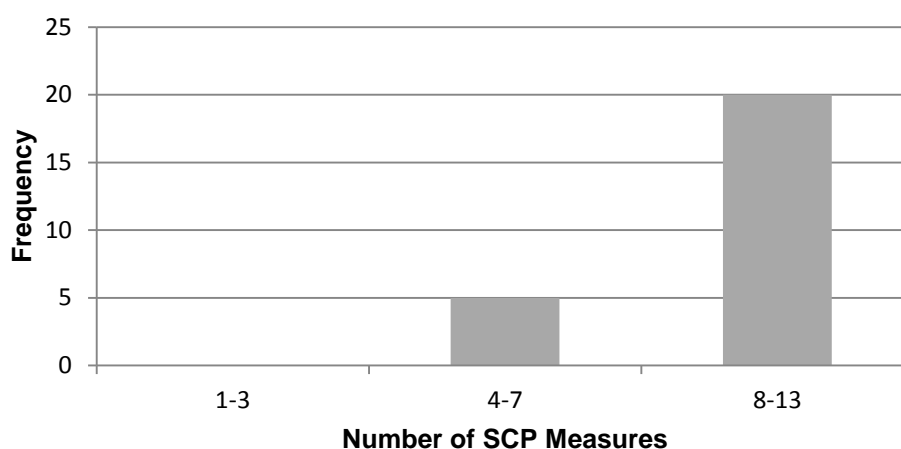
These 538 useable questionnaires were included in all further analysis. Analytical procedures were conducted by stratum and are presented following this same design. Specifically, descriptive (frequencies) and bivariate (Pearson  $r$  correlations) statistics were obtained for each stratum in order to answer the research questions and evaluate the hypotheses posed. Frequency counts examine and identify the most and least used strategies aimed at preventing and/or reducing disorder (research question #1); Pearson  $r$  correlation coefficients examine the relationships between the strategies used and the level of disorder in the campus (research question #2).

In addition, a multivariate analysis (OLS Regression) was conducted in stratum where a significant relationship was found at the bivariate level. This analysis was performed to further examine the relationships between each strategy type (i.e. SCP, student programs, staff programs, and use of LE) and total disorder (research question #2). In addition, the two environmental variables (i.e. community crime level and

number of classroom changes) were also included in the analysis to further examine their relationships with school disorder. Using a multivariate technique allows for the examination of the dependent variable's change (i.e. TotalDis) when one of the independent variables (i.e. TotalSCP, TotalStud, TotalStaff, use of LE, community crime level or number of classroom changes) is varied, while the other independent variables are held constant.

### **Stratum 1: Combined Grade Level/Other Community Type**

**Strategies used.** The mean number of SCP strategies (TotalSCP) used by campuses in stratum 1 (N=25) was 8.84. Eighty percent of campuses used eight or more SCP measures. No campus in this stratum used less than four SCP techniques (see Figure 1.). Specifically, the most used SCP strategies were requiring visitors to check-in at a central location (100%), utilizing a closed campus (100%), controlling access to campus buildings (84%), and establishing a safety and security committee (84%). There were also several SCP techniques not used frequently by campuses in this stratum including mandating clear backpacks/bags (8%) and requiring students to have badges or picture identification (8%).



**Figure 1. SCP Measures Used in Stratum 1**

The mean value of student programs (TotalStud) used by campuses in stratum 1 was 5.0. A total of 16 respondents (64%) used five or six student programs aimed at reducing disorder. Only one respondent indicated no student programs aimed at reducing or preventing disorder were used. Programs such as counseling services (84%) and mandatory bullying prevention education (84%) were among the most used by campuses in this stratum. Programs involving students resolving student disputes or code of conduct violations (32%) and education in crime prevention (52%) were used less frequently.

The mean value of staff programs (TotalStaff) used to prevent disorder in this stratum was 4.6. All 25 respondents had at least one staff program aimed at preventing and/or responding to disorder. Over 68% of campuses used between one and five staff programs. Two respondents were found to use all eight staff programs included in the questionnaire. Specifically, the most used staff programs were mandatory review/training on school discipline practices and procedures (84%) and mandatory bullying prevention education/training (84%). Staff programs focusing on crime/incident prevention (20%) and student threat management (40%) were not used frequently by campuses in this stratum.

A total of 12 respondents (48%) indicated that law enforcement officers were used at their campus to prevent and/or respond to disorder. Law enforcement officers were used by a majority of campuses during school hours (90%). In addition to their enforcement role, officers were found to educate staff and/or students (56%) and mentor students (52%) while working in the school.



**Relationship to disorder (bivariate).** Table 5 presents the results of the correlation matrix between the strategies used to prevent and/or respond to disorder and the level of disorder. The matrix also includes the two environmental variables and their relationships with the level of disorder. Pearson correlation coefficients were analyzed using a two-tailed test to determine the strength of the relationships. Only one significant relationship was found. The crime level in the community demonstrated a significant negative relationship with school disorder ( $r = -.484$ ,  $p < .05$ ). None of the strategy types were found to have a significant relationship in either direction.

**Table 5. Bivariate Correlations for Stratum 1 (N=25)**

	TotalSCP	TotalStud	TotalStaff	Use of LE	Community Crime Level	Classroom Changes
<b>TotalDis</b>						
<b>Pearson r (Sig)</b>	-.039 (.853)	.098 (.642)	.326 (.112)	.206 (.323)	-.484* (.019)	.134 (.524)

\* $p < .05$ ; \*\* $p < .01$  (two-tailed significance test)

**Relationship to disorder (multivariate).** Table 6 presents the results of the regression model. The model ( $R^2 = .446$ ,  $F [6, 16] = 2.235$ ) included all strategy types and the two environmental variables. It explained 46.6% of the variance in TotalDis. However, only one significant relationship was found in this model. The crime level in the community demonstrated a significant negative relationship with school disorder ( $r = -.537$ ,  $p < .05$ ). None of the strategy types used to prevent disorder were found to have a significant relationship with TotalDis. The results are consistent with the bivariate analysis discussed above.

**Table 6. Regression Analysis for Stratum 1**

<b>TotalDis (N=25)</b>		
<b>Variables</b>	<b>Coefficient (Sig)</b>	<b>Std. Error</b>
<b>TotalSCP</b>	.344 (.194)	.979
<b>TotalStud</b>	-.062 (.785)	.886
<b>TotalStaff</b>	.062 (.827)	.859
<b>Use of LE</b>	.432 (.062)	2.276
<b>Community Crime Level</b>	-.537 (.019)*	3.598
<b>Classroom Changes</b>	.138 (.474)	1.513
<b>R<sub>2</sub></b>	.466	
<b>F statistic (df)</b>	2.235 (22)	

\*p<.05; \*\*p<.01 (two-tailed significance test)

### **Stratum 2: Combined Grade Level/Major Suburban Community Type**

**Strategies used.** The mean number of SCP techniques (TotalSCP) used in stratum 2 (N=6) was 10.66. All campuses indicated using nine or more SCP measures with over 80% of schools using between 10 and 13 different SCP tactics. Specifically, all campuses within the stratum had a central location for visitors to check-in, access control measures, a safety and security committee, a closed-campus, cameras to monitor buildings, and mandatory discipline procedures for bullying and cyberbullying. Only 16.7% of campuses required students to wear badges or picture identification.

The mean value of student programs (TotalStud) for stratum 2 was 5.83. Half of the campuses (50%) in the stratum indicated they used seven student programs aimed at reducing disorder. Mandatory bullying prevention education, mentoring programs, and counseling services were among the most used programs with 83.3% of campuses utilizing them.

The mean number of staff programs (TotalStaff) aimed at reducing disorder was 5.83. No campus reported utilizing less than four staff programs, with 83.4% indicating they used between five and eight staff programs. Specifically, all campuses within the

stratum used mandatory review/training on school discipline practices and procedures, threat management training, and school safety and security training. Programs focusing on crime/incident prevention (16.7%) were utilized least often by campuses in stratum 2.

A total of two respondents indicated they used law enforcement at their campuses to prevent and/or respond to incidents of disorder. Both campuses (100%) reported that officers were used during the school day and as needed at other school events (i.e. athletic and social events). In addition, both campuses (100%) indicated the main role of the officers was enforcement of school rules and criminal code.

**Relationship to disorder (bivariate).** Pearson correlation coefficients were analyzed using a two-tailed test to determine the strength of the relationships. No significant relationships were identified between school disorder and the strategies used to prevent disorder. In addition, no relationships were discovered between the two environmental variables and the disorder.

### **Stratum 3: Combined Grade Level/Major Urban Community Type**

**Strategies used.** The mean number of SCP techniques (TotalSCP) used in stratum 3 (N=5) was 9.80. No campus reported using less than eight SCP measures aimed at preventing disorder. The mean value of student programs (TotalStud) for stratum 3 was 5.60. All campuses reported utilizing at least two student programs aimed at preventing and/or reducing incidents of disorder. The mean value of staff programs (TotalStaff) used to prevent disorder in this stratum was 5.00. Eighty percent of campuses utilized between four and seven staff programs. All five respondents in this stratum indicated the use of law enforcement officers in their schools. All respondents reported that officers were used during school hours. In addition, two campuses utilized law enforcement

officers at school events (i.e. athletic and social events). Due to a low number of responses, more in-depth descriptive statistics could not be provided.

**Relationship to disorder (bivariate).** Pearson correlation coefficients were analyzed using a two-tailed test to determine the strength of the relationships. Table 7 presents the results of the correlation matrix. Only one significant relationship was found. The number of classroom changes a campus had in their daily class schedule or rotation demonstrated a significant positive relationship with school disorder ( $r=.950$ ,  $p<.05$ ). In addition, the relationship between the use of law enforcement and total disorder was not examined due to all respondents in the stratum reporting the use of law enforcement.

**Table 7. Bivariate Correlations for Stratum 3 (N=5)**

	TotalSCP	TotalStud	TotalStaff	Use of LE	Community Crime Level	Classroom Changes
<b>TotalDis</b>						
<b>Pearson r (Sig)</b>	-.743 (.150)	.163 (.793)	-.716 (.174)	-	.363 (.549)	.950* (.013)

\* $p<.05$ ; \*\* $p<.01$  (two-tailed significance test)

- No statistic available

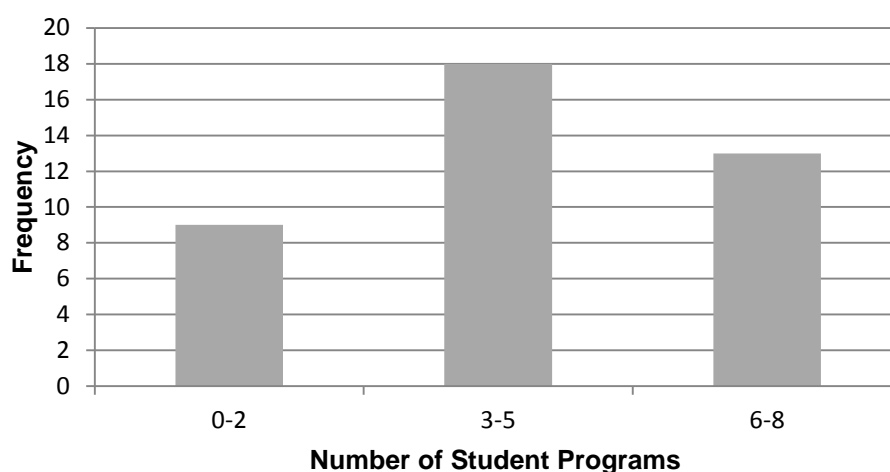
**Relationship to disorder (multivariate).** Due to the low response rate in this stratum, a regression analysis could not be performed. Specifically, the lack of variation in the variables resulted in an error when the model was created. Therefore, no statistics were available to report.

#### **Stratum 4: Combined Grade Level/Rural Community Type**

**Strategies used.** The mean number of SCP strategies (TotalSCP) used by campuses in stratum 4 (N=40) was 7.52. All respondents indicated using at least two SCP techniques aimed at reducing disorder, with 77.5% utilizing between six and nine.

Over 90% of respondents indicated that their campuses required visitors to sign in at a central location and over 95% of campuses mandated clear or no backpacks. Only 2.5% of campuses required students to wear badges or picture identification.

The mean value of student programs (TotalStud) used by campuses in stratum 4 was 4.1. A total of 18 respondents (45%) used between three and six student programs aimed at reducing disorder (see Figure 2.). Programs such as counseling services (80%), social integration (60%), and crime prevention training (67.5%) were among the strategies most used by campuses in this stratum. Programs involving students resolving student disputes or code of conduct violations (20%) and mandatory bullying prevention training/education (52.5%) were used less frequently.



**Figure 2. Student Programs Used in Stratum 4**

The mean value of staff programs (TotalStaff) used by campuses was 3.95. Only one respondent indicated no staff programs were used. Over 57% of campuses used between two and four staff programs aimed at preventing and/or reducing disorder. Specifically, the most used staff programs were classroom management training (87.5%),

mandatory review/training on school discipline practices and procedures (80%), and mandatory bullying prevention education/training (62.5%). Staff programs focusing on crime/incident prevention (17.5%) and training to identify students who exhibit early warning signs of violence (25%) were not used frequently by campuses in this stratum.

A total of 8 respondents (20%) indicated that law enforcement officers were used at their campus to prevent and/or respond to disorder. Law enforcement officers were used by a majority of campuses during school hours (62.5%) and at school events (87.5%). In addition to their enforcement role, officers were found to educate staff and/or students (62.5%) and mentor students (62.5%) while working in the school.

**Relationship to disorder (bivariate).** Pearson correlation coefficients were analyzed using a two-tailed test to determine the strength of the relationships. Table 8 presents the results of the correlation matrix. Only one significant relationship was found. The use of law enforcement officers demonstrated a significant negative relationship with school disorder ( $r = -.447$ ,  $p < .01$ ). All other variables were found to have no significant relationship with the level of disorder.

**Table 8. Bivariate Correlations for Stratum 4 (N=40)**

	TotalSCP	TotalStud	TotalStaff	Use of LE	Community Crime Level	Classroom Changes
<b>TotalDis</b>						
<b>Pearson r (Sig)</b>	.023 (.890)	-.197 (.224)	-.145 (.371)	-.447** (.004)	-.166 (.314)	.190 (.241)

\* $p < .05$ ; \*\* $p < .01$  (two-tailed significance test)

**Relationship to disorder (multivariate).** Table 9 presents the results of the regression model. The model ( $R^2 = .235$ ,  $F [6, 32] = 1.639$ ) included all strategy types and the two environmental variables. It explained 23.5% of the variance in total school

disorder (TotalDis). Only one significant relationship was found in this model. The use of law enforcement officers demonstrated a significant negative relationship with school disorder ( $r=-.413$ ,  $p<.05$ ). The results are consistent with the bivariate analysis discussed above.

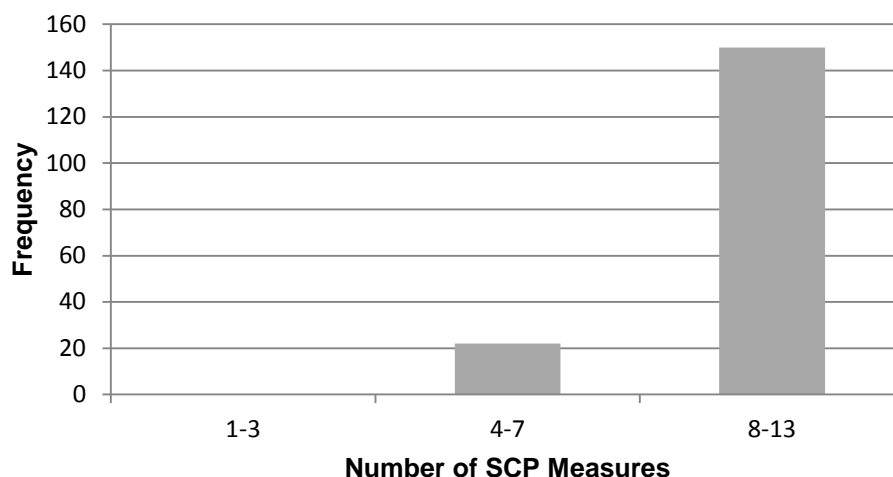
**Table 9. Regression Analysis for Stratum 4**

<b>TotalDis (N=40)</b>		
<b>Variables</b>	<b>Coefficient (Sig)</b>	<b>Std. Error</b>
<b>TotalSCP</b>	.033 (.853)	.605
<b>TotalStud</b>	-.163 (.415)	.640
<b>TotalStaff</b>	-.049 (.811)	.669
<b>Use of LE</b>	-.413 (.018)*	2.730
<b>Community Crime Level</b>	-.045 (.800)	7.332
<b>Classroom Changes</b>	.053 (.740)	1.591
<b>R<sub>2</sub></b>	.235	
<b>F statistic (df)</b>	1.639 (38)	

\* $p<.05$ ; \*\* $p<.01$  (two-tailed significance test)

### **Stratum 5: Elementary Grade Level/Other Community Type**

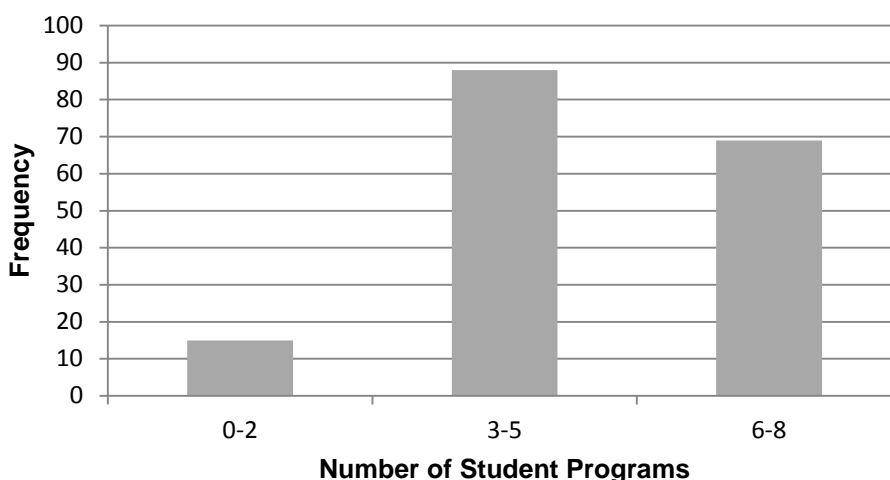
**Strategies used.** The mean number of SCP techniques (TotalSCP) utilized by campuses in stratum 5 (N=172) was 9.20. All campuses reported using at least 5 strategies that fall within the scope of SCP. In addition, 87.2% of campuses used between eight and thirteen different SCP measures to prevent incidents of disorder (see Figure 3.). Specifically, over 90% of campuses within stratum 5 reported a central location for visitors to check-in, access control measures, and the use of a closed-campus. Only 7.6% of campuses required students to have clear backpacks or no backpack at all, and 8.1% of campuses required students to have badges or picture identification.



**Figure 3. SCP Measures Used in Stratum 5**

The mean value of student programs (TotalStud) used by campuses in stratum 5 was 5.06. Every respondent in stratum 5 reported at least one program for students aimed at preventing and/or reducing incidents of disorder. A total of 142 campuses (82.6%) had four or more student programs (see Figure 4.). Among the most commonly used programs in stratum 5 were counseling services (95.9%) and mandatory bullying prevention for students (82.0%). The least common programs were students resolving student disputes or code of conduct violations (30.8%) and a comprehensive bullying prevention program (i.e. involving parents and other staff in conjunction with students) (45.3%).



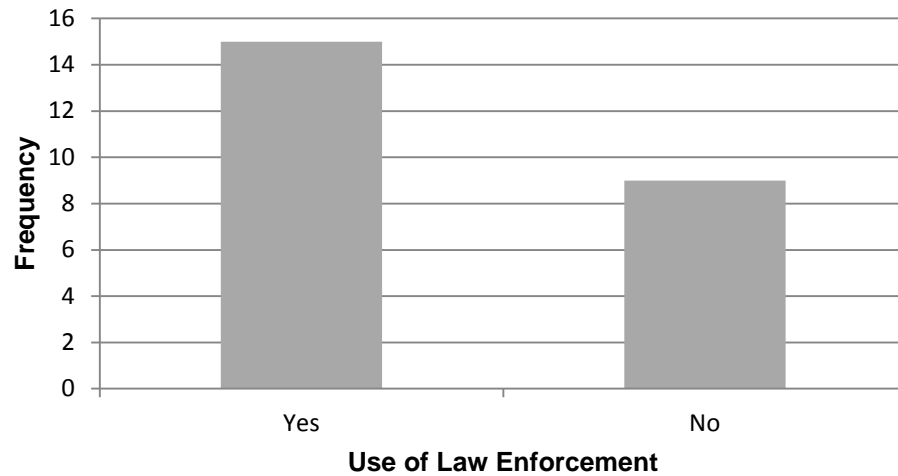


**Figure 4. Student Programs Used in Stratum 5**

The mean value of staff programs (TotalStaff) aimed at preventing and/or reducing acts of disorder was 4.63. Three campuses (1.7%) reported they did not use any staff programs, while 51% reported they used between three and five staff programs. Programs involving classroom management training (88.4%), mandatory review/training on school discipline practices and procedures (83.7%), and mandatory bullying prevention education/training (81.4%) were among the most frequently used programs. Staff programs focusing on crime/incident prevention (19.2%) and training to identify students who exhibit early warning signs of violence (34.3%) are not used frequently by campuses in this stratum.

A total of 87 respondents (50.6%) indicated the use of law enforcement on their campus (see Figure 5.). Law enforcement officers were used by a majority of campuses during school hours (80.5%) and at school events (57.4%). An overwhelming majority of campuses that utilized law enforcement officers indicated they did not use officers to

educate staff and/or students (23.6%) or mentor students (32.4%) while working in the school.



**Figure 5. Use of Law Enforcement in Stratum 5**

**Relationship to disorder (bivariate).** Pearson correlation coefficients were analyzed using a two-tailed test to determine the strength of the relationships. Table 10 presents the results of the correlation matrix. Several significant relationships were discovered. Both the use of law enforcement officers ( $r = -.260$ ,  $p < .01$ ) and the crime level in the surrounding community ( $r = -.173$ ,  $p < .05$ ) demonstrated a significant negative relationship with school disorder. In addition, the number of classroom changes ( $r = .199$ ,  $p < .01$ ) demonstrated a significant positive relationship with school disorder.

**Table 10. Bivariate Correlations for Stratum 5 (N=172)**

	TotalSCP	TotalStud	TotalStaff	Use of LE	Community Crime Level	Classroom Changes
<b>TotalDis</b>						
<b>Pearson r (Sig)</b>	.143 (.061)	.132 (.085)	.093 (.226)	-.260** (.001)	-.173* (.024)	.199** (.009)

\* $p < .05$ ; \*\* $p < .01$  (two-tailed significance test)

**Relationship to disorder (multivariate).** Table 11 presents the results of the regression model. The model ( $R^2 = .158$ ,  $F [6, 163] = 5.111$ ) included all strategy types and the two environmental variables. The model was able to explain 15.8% of the variance in total school disorder (TotalDis). The use of law enforcement officers ( $r = -.270$ ,  $p < .01$ ) demonstrated a significant negative relationship with school disorder, while the number of classroom changes ( $r = .228$ ,  $p < .01$ ) demonstrated a significant positive relationship with school disorder. Both relationships were also discovered in the bivariate analysis presented above. However, the crime level in the surrounding community did not have a relationship with total disorder as it did in the bivariate analysis.

**Table 11. Regression Analysis for Stratum 5**

<u>TotalDis (N=172)</u>		
Variables	Coefficient (Sig)	Std. Error
TotalSCP	.022 (.789)	.299
TotalStud	.056 (.573)	.319
TotalStaff	.063 (.531)	.297
Use of LE	-.270 (.000)**	.860
Community Crime Level	-.123 (.096)	.724
Classroom Changes	.228 (.002)**	.574
$R_2$	.158	
F statistic (df)	5.111 (169)	

\* $p < .05$ ; \*\* $p < .01$  (two-tailed significance test)

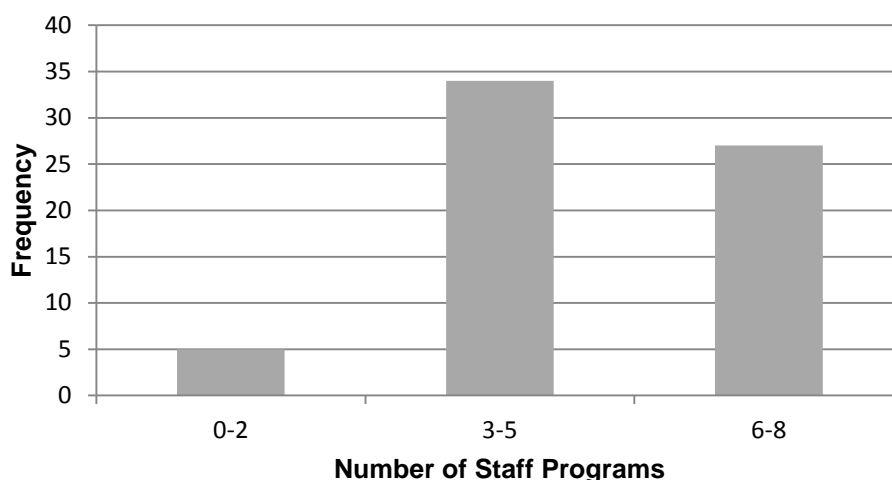
### **Stratum 6: Elementary Grade Level/Major Suburban Community Type**

**Strategies used.** The mean number of SCP techniques (TotalSCP) utilized by campuses in stratum 6 ( $N = 66$ ) was 9.57. All respondents indicated that their campuses used at least five SCP techniques aimed at preventing disorder. A total of 56 campuses (84.8%) used between eight and eleven SCP measures. The most utilized measures included a central location for visitors to check-in (100%), access control measures

(100%), the use of a closed-campus (98.5%), mandatory staff identification badges (90.9%), and a safety and security committee (89.4%). Only 9.1% of campuses required students to have badges or picture identification, and 13.6% mandated clear backpacks or no backpack at all.

The mean value of student programs (TotalStud) for stratum 6 was 5.38. Only one campus reported no student programs were used, while 57 campuses (86.4%) indicated between four and eight student programs were aimed at preventing and/or reducing acts of disorder. Student programs that focused on providing counseling services (92.4%), increasing social integration (86.4%), and teaching crime prevention skills (80.3) were among the most utilized. The least common programs were students resolving student disputes or code of conduct violations (40.9%) and comprehensive bullying prevention programs (i.e. involving parents and other staff in conjunction with students) (50%).

The mean value of staff programs used to prevent disorder in this stratum was 5.12. Over 50% of campuses utilized between three and five staff programs aimed at preventing and/or reducing incidents of disorder (see Figure 6.). Specifically, the most used staff programs were school safety and security training (92.4%), classroom management training (89.4%), and mandatory bullying prevention education/training (83.3%).



**Figure 6. Staff Programs Used in Stratum 6**

A total of 26 respondents (39.4%) indicated that law enforcement officers were used at their campus to prevent and/or respond to incidents of disorder. Law enforcement officers were used by a majority of campuses during school hours (88.5%) and at school events (88.5%). An overwhelming majority of campuses that utilized law enforcement officers indicated they did not use officers to educate staff and/or students (12.1) or mentor students (21.2%) while working in the school.

**Relationship to disorder (bivariate).** Pearson correlation coefficients were analyzed using a two-tailed test to determine the strength of the relationships. Table 12 presents the results of the correlation matrix. Only one significant relationship was found. The use of law enforcement officers demonstrated a significant negative relationship with school disorder ( $r = -.393$ ,  $p < .01$ ). All other variables were found to have no significant relationship with the level of disorder.

**Table 12. Bivariate Correlations for Stratum 6 (N=66)**

	TotalSCP	TotalStud	TotalStaff	Use of LE	Community Crime Level	Classroom Changes
<b>TotalDis</b>						
<b>Pearson r (Sig)</b>	.197 (.113)	.121 (.335)	.096 (.442)	-.393** (.001)	-.174 (.162)	.053 (.674)

\* $p < .05$ ; \*\* $p < .01$  (two-tailed significance test)

**Relationship to disorder (multivariate).** Table 13 presents the results of the regression model. The model ( $R^2 = .206$ ,  $F [6, 59] = 2.558$ ) included all strategy types and the two environmental variables. The model was able to explain 20.6% of the variance in total disorder (TotalDis). One significant relationship was found in this model. The use of law enforcement officers ( $r = -.387$ ,  $p < .01$ ) demonstrated a significant negative relationship with school disorder. The results of the model mirror that of the bivariate analysis above.

**Table 13. Regression Analysis for Stratum 6**

<b>TotalDis (N=66)</b>		
Variables	Coefficient (Sig)	Std. Error
TotalSCP	.136 (.287)	.386
TotalStud	-.003 (.985)	.357
TotalStaff	.005 (.975)	.335
Use of LE	-.387 (.002)**	1.066
Community Crime Level	-.145 (.241)	.800
Classroom Changes	.045 (.702)	.668
$R^2$	.206	
F statistic (df)	2.558 (65)	

\* $p < .05$ ; \*\* $p < .01$  (two-tailed significance test)

### **Stratum 7: Elementary Grade Level/Major Urban Community Type**

**Strategies used.** The mean value of SCP strategies (TotalSCP) used by campuses in stratum 7 (N=24) was 9.16. All respondents indicated using at least six of the thirteen SCP techniques included in the questionnaire, with 70.8% utilizing between nine and

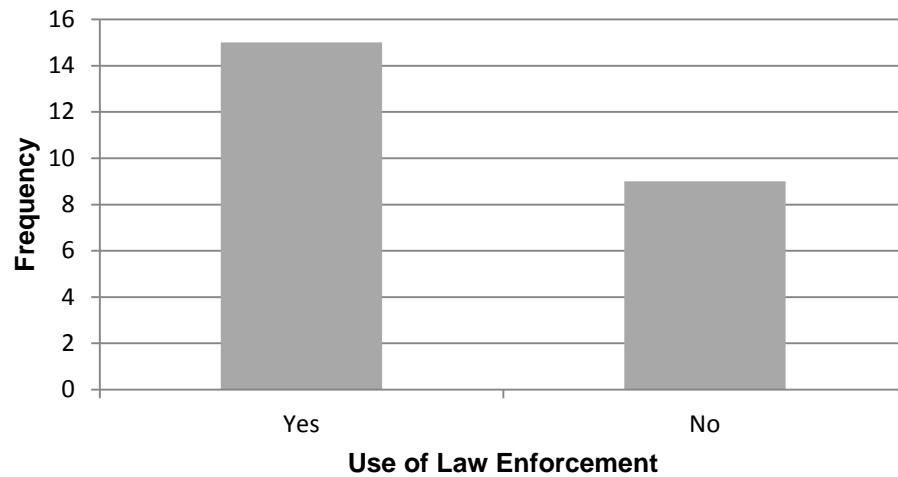
eleven. All respondents (100%) required students to have badges or picture identification and mandated clear backpacks or no backpack at all. In addition, all campuses had mandatory procedures to handle incidents of on-campus bullying. All other SCP techniques were utilized by at least 75% of campuses in this stratum.

The mean value of student programs (TotalStud) used by campuses in stratum 7 was 5.75. All respondents indicated using at least three student programs aimed at preventing and/or reducing disorder, with 66.6% utilizing between six and eight programs. Specifically, mandatory bullying prevention (91.7%), counseling services (87.5%), mentoring services (87.5), and social integration (83.3%) programs were among the most utilized.

Staff programs (TotalStaff) had a mean value of 5.00 in stratum 7. All respondents indicated at least two staff programs were used in an attempt to prevent and/or reduce disorder. Over 75% of campuses utilized between three and seven staff programs. The most used staff programs were mandatory review/training of school discipline policies/procedures (95.8%), school safety and security training (91.7%), classroom management training (91.7%), and mandatory bullying prevention education/training (83.3%). Staff programs focusing on crime/incident prevention (20.8%) and training to identify students who exhibit early warning signs of violence (54.2%) were not used frequently by campuses in this stratum.

A total of 15 out of the 24 (62.5%) respondents indicated the use of law enforcement officers on their campus (see Figure 7.). Nine campuses (60%) that utilized law enforcement officers indicated they were used during school hours. In addition, seven campuses (46.6%) indicated the use of law enforcement at school events (i.e.

athletic and social events), while four campuses used officers for overnight patrol (26.6%). Only three of the fifteen (20.0%) campuses reported officers were used to educate staff/students and only two (13.3%) indicated officers mentored students.



**Figure 7. Use of Law Enforcement in Stratum 7**

**Relationship to disorder (bivariate).** Pearson correlation coefficients were analyzed using a two-tailed test to determine the strength of the relationships. Table 14 presents the results of the correlation matrix. The use of law enforcement officers demonstrated a significant negative relationship with school disorder ( $r = -.525$ ,  $p < .01$ ). All other variables were found to have no significant relationship with the level of disorder.

**Table 14. Bivariate Correlations for Stratum 7 (N=24)**

	TotalSCP	TotalStud	TotalStaff	Use of LE	Community Crime Level	Classroom Changes
<b>TotalDis</b>						
<b>Pearson r (Sig)</b>	-.052 (.808)	-.151 (.481)	-.229 (.281)	-.525** (.323)	.104 (.636)	.125 (.571)

\* $p < .05$ ; \*\* $p < .01$  (two-tailed significance test)



**Relationship to disorder (multivariate).** Table 15 presents the results of the regression model. The model ( $R^2 = .275$ ,  $F [6, 16] = 1.012$ ) included all strategy types and the two environmental variables. The model explained 20.6% of the variance in total disorder (TotalDis). The use of law enforcement officers ( $r = -.510$ ,  $p < .05$ ) was found to have a significant negative relationship with school disorder. The results of the model are consistent with the bivariate analysis above.

**Table 15. Regression Analysis for Stratum 7**

<b>TotalDis (N=24)</b>		
<b>Variables</b>	<b>Coefficient (Sig)</b>	<b>Std. Error</b>
<b>TotalSCP</b>	.181 (.530)	1.195
<b>TotalStud</b>	-.134 (.695)	1.205
<b>TotalStaff</b>	-.009 (.982)	1.506
<b>Use of LE</b>	-.510 (.044)*	2.903
<b>Community Crime Level</b>	.042 (.876)	1.491
<b>Classroom Changes</b>	.090 (.696)	1.908
<b>R<sub>2</sub></b>	.275	
<b>F statistic (df)</b>	1.012 (22)	

\* $p < .05$ ; \*\* $p < .01$  (two-tailed significance test)

### **Stratum 8: Elementary Grade Level/Rural Community Type**

**Strategies used.** The mean number of SCP strategies (TotalSCP) used by campuses in stratum 8 ( $N=7$ ) was 7.57. All respondents indicated using at least five SCP techniques aimed at reducing disorder, with 71.5% utilizing between seven and eleven techniques. All campuses (100%) indicated a central location for visitors to check-in, the use of a closed-campus, clear backpacks or no backpacks at all, and mandatory badges or picture identification for students. The use of staff identification badges (28.6%) and an anonymous reporting system (28.6%) were used least frequently by campuses within stratum 8.

The mean value of student programs (TotalStud) used by campuses in this stratum was 4.57. All campuses utilized at least two student programs. Specifically, campuses in this stratum utilized counseling services (100%) and a mandatory bully prevention training for students (100%) most frequently. Programs focusing on students resolving student disputes or code of conduct violations (14.3%) and mentoring programs (28.6%) were used least frequently.

Staff programs (TotalStaff) had a mean value of 3.85 in stratum 8. All campuses utilized at least two staff programs. The most frequently used programs were mandatory review/training of school discipline policies/procedures (85.7%) and school safety and security training (85.7%). Staff programs focusing on crime/incident prevention (14.3%), threat management (42.9%), and training to identify students who exhibit early warning signs of violence (42.9%) were not used frequently by campuses in this stratum.

All seven respondents reported that law enforcement officers were not used in their campus. Therefore, no further analysis could be conducted on the use of law enforcement in stratum 8.

**Relationship to disorder (bivariate).** Pearson correlation coefficients were analyzed using a two-tailed test to determine the strength of the relationships. No significant relationships were identified between school disorder and the strategies used to prevent disorder. In addition, no relationships were discovered between the two environmental variables and the level of disorder. There was no variation in the use of law enforcement and the surrounding community crime level. Therefore, no analysis could be conducted.

### **Stratum 9: Middle Grade Level/Other Community Type**

**Strategies used.** The mean number of SCP strategies (TotalSCP) used by campuses in stratum 9 (N=67) was 9.22. All respondents indicated using at least three SCP techniques aimed at reducing disorder, with 59.7% utilizing between nine and eleven. The most utilized measures included a central location for visitors to check-in (98.5%), the use of security cameras (89.6%), and the use of a closed-campus (85.1%). Only 17.9% of campuses required students to have badges or picture identification, and only 1.5% % mandated clear backpacks or no backpack at all.

The mean value of student programs (TotalStud) used by campuses in this stratum was 4.64. Two respondents indicated that their campuses did not utilize any student programs aimed at preventing and/or reducing disorder. A total of 44 (65.6%) respondents reported between five and seven student programs were used. Campuses in this stratum utilized counseling services (82.1%) and social integration programs (74.6%) most frequently. Programs involving students resolving other student disputes or code of conduct violations (37.3%) were used least frequently.

Staff programs (TotalStaff) had a mean value of 4.65 in stratum 9. Two respondents indicated that their campuses did not utilize any staff programs aimed at preventing and/or reducing disorder, while all other respondents (97%) reported the use of two or more staff programs. The most used staff programs were classroom management training (92.5%) and mandatory review/training of school discipline policies/procedures (83.6%). Staff programs focusing on crime/incident prevention (22.4%), training to identify students who exhibit early warning signs of violence

(34.3%), and threat management training (44.8%) are not used frequently by campuses in this stratum.

A total of 50 out of the 67 (74.6%) respondents indicated the use of law enforcement officers on their campus. Forty-seven campuses (94%) that utilized law enforcement officers indicated they were used during school hours. In addition, 48 campuses (96%) indicated the use of law enforcement at school events (i.e. athletic and social events), while only 16 campuses (32%) used officers for overnight patrol. Fourteen of the fifty (28%) campuses reported officers were used to educate staff/students, while 20 (40%) indicated officers mentored students.

**Relationship to disorder (bivariate).** Pearson correlation coefficients were analyzed using a two-tailed test to determine the strength of the relationships. Table 16 presents the results of the correlation matrix. Only one significant relationship was found. Crime level in the surrounding community ( $r = -.309$ ,  $p < .05$ ) demonstrated a significant negative relationship with school disorder. All other variables were found to have no significant relationship with the level of disorder.

**Table 16. Bivariate Correlations for Stratum 9 (N=67)**

	TotalSCP	TotalStud	TotalStaff	Use of LE	Community Crime Level	Classroom Changes
TotalDis						
Pearson r (Sig)	.014 (.913)	-.040 (.748)	-.143 (.247)	-.220 (.074)	-.309* (.011)	.088 (.478)

\* $p < .05$ ; \*\* $p < .01$  (two-tailed significance test)

**Relationship to disorder (multivariate).** Table 17 presents the results of the regression model. The model ( $R^2 = .206$ ,  $F [6, 59] = 2.558$ ) included all strategy types and the two environmental variables. Using the six independent variables, the model

explained 17% of the variance in total disorder. Crime level in the surrounding community ( $r=-.256$ ,  $p<.05$ ) demonstrated a significant negative relationship with school disorder. Similar to the bivariate analysis, all other variables were found to have no significant relationship with the level of disorder.

**Table 17. Regression Analysis for Stratum 9**

<b>TotalDis (N=67)</b>		
<b>Variables</b>	<b>Coefficient (Sig)</b>	<b>Std. Error</b>
<b>TotalSCP</b>	.064 (.663)	.589
<b>TotalStud</b>	.019 (.899)	.565
<b>TotalStaff</b>	-.218 (.140)	.599
<b>Use of LE</b>	-.223 (.085)	2.347
<b>Community Crime Level</b>	-.256 (.038)*	1.876
<b>Classroom Changes</b>	.120 (.339)	2.227
<b>R<sub>2</sub></b>	.170	
<b>F statistic (df)</b>	2.046 (66)	

\* $p<.05$ ; \*\* $p<.01$  (two-tailed significance test)

### **Stratum 10: Middle Grade Level/Major Suburban Community Type**

**Strategies used.** The mean number of SCP techniques (TotalSCP) used in stratum 10 ( $N=16$ ) was 9.62. All respondents indicated using at least six SCP techniques aimed at reducing disorder, with 68.9% utilizing between ten and twelve. All campuses (100%) required visitors to check-in at a central location, utilized a closed-campus, required staff to wear identification badges, and used security cameras. The use of clear/no backpacks (6.3%) and student badges or picture identification (37.5%) were used least frequently by campuses within stratum 10.

The mean value of student programs (TotalStud) used by campuses in this stratum was 5.06. All campuses utilized at least three student programs, with a majority (56.3%) reporting they used five programs. Specifically, campuses in this stratum utilized counseling services (93.8%), social integration programs (87.5%), and mentoring

programs (87.5%) most frequently. Comprehensive bullying prevention programs (including parents, all school staff, bus drivers, food service staff, etc.) was the least used student program (31.3%) by campuses in this stratum.

Staff programs (TotalStaff) had mean value of 5.31 in stratum 10. All campuses utilized at least one staff programs aimed at preventing and/or reducing incidents of disorder. Over two-thirds of respondents (75.1%) reported using between five and seven staff programs. The most used staff programs were mandatory review/training on school discipline practices and procedures (93.8%) and classroom management training (93.8%). Programs focusing on crime/incident prevention (37.5%) and threat management (56.3%) were not used frequently by campuses in this stratum.

All 16 respondents reported that law enforcement officers were used in their campus. Therefore, no further analysis could be conducted on the use of law enforcement in stratum 10.

**Relationship to disorder (bivariate).** Pearson correlation coefficients were analyzed using a two-tailed test to determine the strength of the relationships. No significant relationships were identified between school disorder and the strategies used to prevent disorder. In addition, no relationships were discovered between the two environmental variables and the level of disorder. There was no variation in the use of law enforcement; therefore, no analysis could be conducted.

### **Stratum 11: Middle Grade Level/Major Urban Community Type**

**Strategies used.** The mean number of SCP strategies (TotalSCP) used by campuses in stratum 11 (N=3) was 10.66. All respondents indicated using at least nine SCP techniques aimed at reducing disorder. The mean value of student programs

(TotalStud) used by campuses in this stratum was 5.33. All campuses utilized at least three student programs. Staff programs (TotalStaff) had a mean value of 6.33. All campuses utilized at least five staff programs. All three respondents reported that law enforcement officers were used in their campus. Due to a low number of responses, more in-depth descriptive statistics could not be provided.

**Relationship to disorder (bivariate).** Pearson correlation coefficients were analyzed using a two-tailed test to determine the strength of the relationships. No significant relationships were identified between school disorder and the strategies used to prevent disorder or the two environmental variables. There was no variation in the use of law enforcement or the number of classroom changes; therefore, no analysis could be conducted.

#### **Stratum 12: Middle Grade Level/Rural Community Type**

**Strategies used.** The mean number of SCP strategies (TotalSCP) used by campuses in stratum 12 (N=6) was 7.66. All respondents reported using between seven and nine SCP techniques aimed at preventing and/or reducing incidents of disorder. All campuses required visitors to check-in at a central location, while over 80% of campuses reported mandatory procedures for incidents of bullying and cyberbullying. No campus within this stratum required students to wear badges/picture identification or required clear/no backpacks be used.

The mean value of student programs (TotalStud) used by campuses in this stratum was 5.00. All campuses utilized at least four student programs. All campuses provided crime prevention instruction for students, while over 80% of campuses offered counseling services and mandated a bullying prevention program for students.

Staff programs (TotalStaff) had a mean value of 5.33 in stratum 12. All campuses utilized at least two staff programs. Over 80% of campuses provided classroom management training, mandatory review/training of school discipline policies/procedures, bullying prevention education, and threat management training.

Only one respondent indicated the use of law enforcement officers in their campus. The one campus did not use law enforcement officers during school, but rather at select school events (e.g. athletic or social events).

**Relationship to disorder (bivariate).** Pearson correlation coefficients were analyzed using a two-tailed test to determine the strength of the relationships. No significant relationships were identified between school disorder and the strategies used to prevent disorder. In addition, there was no variation in the two environmental variables; therefore, no analysis could be conducted.

### **Stratum 13: High Grade Level/Other Community Type**

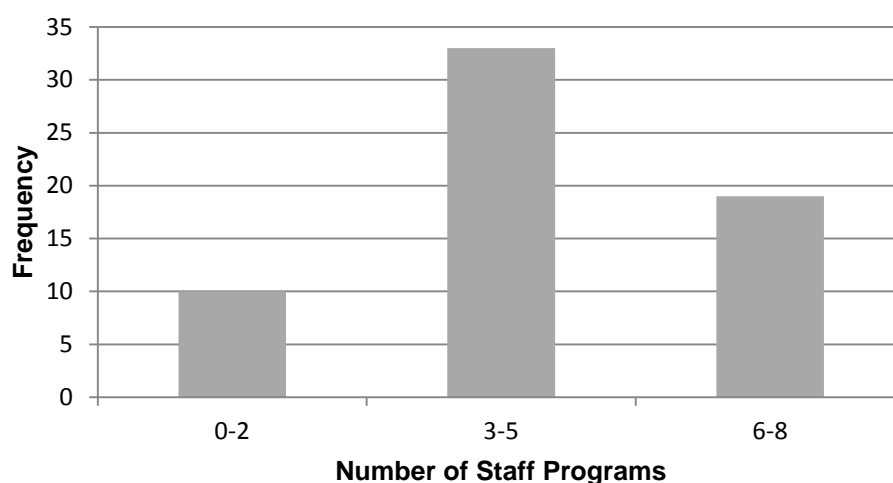
**Strategies used.** The mean number of SCP techniques (TotalSCP) used in stratum 13 (N=62) was 9.71. All respondents indicated using at least six SCP techniques aimed at reducing disorder, with 70.9% utilizing between nine and eleven. Over 90% of campuses required visitors to sign in at a central location, established a safety and security committee, utilized a closed campus, used one or more security cameras, and established an anonymous reporting system. The enforcement of a strict dress code (22.6%) and the mandatory use of clear/no backpacks (6.3%) were used least frequently by campuses within stratum 13.

The mean value of student programs (TotalStud) used by campuses in this stratum was 5.09. All campuses utilized at least two student programs, with a majority (51.6%)



reporting they used five or six programs. Campuses in this stratum utilized crime prevention instruction for students (98.4%), a comprehensive bullying prevention programs (88.7%), and programs involving students resolving student disputes or code of conduct violations (87.1%) most frequently. The least frequently used student programs were those that focused on social integration (35.5%) and mentoring (24.2%).

In stratum 13, staff programs (TotalStaff) had a mean value of 4.53. One respondent reported that no staff programs aimed at preventing and/or reducing disorder were used. All other respondents reported that at least one program was utilized, with that majority (53.2%) indicating between three and five staff programs were used (see Figure 8.). The most frequently used staff programs in stratum 13 were classroom management programs (88.7%) and bullying prevention training (77.4%). Programs focusing on threat management (37.1%), mandatory review/training of school discipline policies/procedures (30.6%), and training to identify students who exhibit early warning signs of violence (30.6%) were not used frequently by campuses in this stratum.



**Figure 8. Staff Programs Used in Stratum 13**

A total of 40 respondents (64.5%) indicated that law enforcement officers were used at their campus to prevent and/or respond to disorder. All respondents indicated that law enforcement officers were used only when students were arriving and/or leaving the campus. A total of nineteen respondents (47.5%) indicated law enforcement officers were used to educate staff and/or students, while twenty campuses (50.0%) utilized law enforcement in a mentoring role.

**Relationship to disorder (bivariate).** Pearson correlation coefficients were analyzed using a two-tailed test to determine the strength of the relationships. Table 18 presents the results of the correlation matrix. Three significant relationships were found. The use of SCP measures (Total SCP) demonstrated a significant positive relationship with school disorder ( $r=.460$ ,  $p<.01$ ). The use of staff programs (TotalStaff) also demonstrated a significant positive relationship with school disorder ( $r=.428$ ,  $p<.01$ ). Finally, the number of classroom changes was found to have a significant negative relationship with total disorder ( $r=-.374$ ,  $p<.01$ ).

**Table 18. Bivariate Correlations for Stratum 13 (N=62)**

	TotalSCP	TotalStud	TotalStaff	Use of LE	Community Crime Level	Classroom Changes
<b>TotalDis</b>						
<b>Pearson r (Sig)</b>	.460** (.000)	.189 (.141)	.428** (.001)	-.222 (.162)	-.012 (.927)	-.374** (.003)

\* $p<.05$ ; \*\* $p<.01$  (two-tailed significance test)

**Relationship to disorder (multivariate).** Table 19 presents the results of the regression model. The model ( $R^2 = .355$ ,  $F [6, 34] = 3.115$ ) included all strategy types and the two environmental variables. The model was able to explain 35.5% of the variance in total school disorder (TotalDis). No significant relationships were found in

this model. Therefore, the results are not consistent with the bivariate analysis discussed above. This inconsistency suggests that when one independent variable varies and the others are held constant, the relationships found in the bivariate level of analysis disappear.

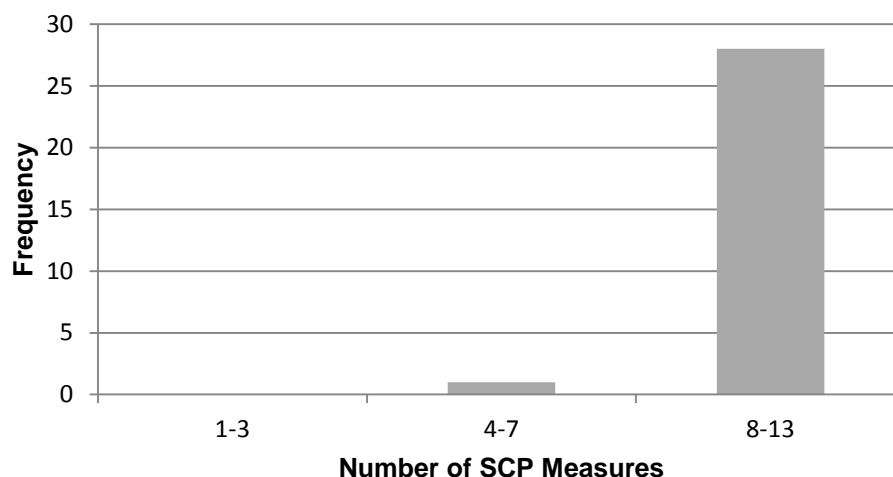
**Table 19. Regression Analysis for Stratum 13**

<b>TotalDis (N=62)</b>		
<b>Variables</b>	<b>Coefficient (Sig)</b>	<b>Std. Error</b>
<b>TotalSCP</b>	.010 (.958)	.724
<b>TotalStud</b>	-.035 (.869)	.923
<b>TotalStaff</b>	.396 (.070)	.691
<b>Use of LE</b>	-.201 (.204)	6.384
<b>Community Crime Level</b>	-.174 (.251)	.947
<b>Classroom Changes</b>	-.295 (.053)	1.936
<b>R<sub>2</sub></b>	.355	
<b>F statistic (df)</b>	3.115 (40)	

\*p<.05; \*\*p<.01 (two-tailed significance test)

#### **Stratum 14: High Grade Level/Major Suburban Community Type**

**Strategies used.** The mean number of SCP techniques (TotalSCP) used in stratum 14 (N=29) was 10.55. All respondents indicated using seven or more SCP measures, while the majority (58.6%) reported using eleven or more (see Figure 9.). The most frequently used SCP measures were requiring visitors to sign-in at a central location (100%), controlling access to school buildings (96.6%), utilizing a closed campus (96.6%), and using one or more security cameras (89.7). The least frequently used SCP tactics were the use of clear/no backpacks (41.4%) and requirement of students to wear badges or picture identification (34.5%).



**Figure 9. SCP Measures Used in Stratum 14**

The mean value of student programs (TotalStud) used by campuses in this stratum was 5.45. All campuses used two or more students programs aimed at preventing and/or reducing incidents of school disorder, while the majority (62%) used between five and seven programs. Specifically, campuses in this stratum utilized counseling services (93.1%) and social integration programs (93.1%) most frequently. Comprehensive bullying prevention programs (55.2%) and programs involving students resolving student disputes or code of conduct violations (48.3%) were the least used student programs by campuses in this stratum.

Staff programs (TotalStaff) had a mean value of 5.66 in stratum 14. All campuses utilized at least three staff programs aimed at preventing and/or reducing incidents of disorder. The majority of respondents (55.2%) reported using between six and eight staff programs. The most used staff programs were classroom management (96.6%) and school safety and security training (96.6%), while the least frequently used programs

were crime/incident prevention (58.6%) and training to identify students who exhibit early warning signs of violence (44.8%).

A total of 27 out of the 29 (93.1%) respondents indicated the use of law enforcement officers on their campus. Twenty-five campuses (92.6%) that utilized law enforcement officers indicated they were used during school hours. In addition, twenty-three campuses (85.2%) indicated the use of law enforcement at school events (i.e. athletic and social events). A total of 21 campuses (77.7%) reported officers were used to educate staff/students, and 19 (70.4%) indicated officers mentored students.

**Relationship to disorder (bivariate).** Pearson correlation coefficients were analyzed using a two-tailed test to determine the strength of the relationships. Table 20 presents the results of the correlation matrix. Two significant relationships were discovered. The use of law enforcement ( $r=.370$ ,  $p<.05$ ) demonstrated a significant positive relationship with school disorder, while the crime level in the surrounding community ( $r=-.506$ ,  $p<.01$ ) demonstrated a significant negative relationship with school disorder.

**Table 20. Bivariate Correlations for Stratum 14 (N=29)**

	TotalSCP	TotalStud	TotalStaff	Use of LE	Community Crime Level	Classroom Changes
TotalDis						
Pearson r (Sig)	.175 (.364)	.285 (.134)	.090 (.643)	.370* (.048)	-.506** (.005)	-.202 (.294)

\* $p<.05$ ; \*\* $p<.01$  (two-tailed significance test)

**Relationship to disorder (multivariate).** Table 21 presents the results of the regression model. The model ( $R^2 = .501$ ,  $F [6, 22] = 3.680$ ) included all strategy types and the two environmental variables. Using the six independent variables, the model

explained over 50% of the variance in total disorder (TotalDis). The use of law enforcement ( $r=.382$ ,  $p<.05$ ) demonstrated a significant positive relationship with school disorder, while the crime level in the surrounding community ( $r=-.522$ ,  $p<.01$ ) demonstrated a significant negative relationship with school disorder. Both relationships are consistent with the results of the bivariate analysis. However, in this model, student programs ( $r=.397$ ,  $p<.05$ ) was found to have a significant positive relationship with total disorder. This relationship did not exist when examining the Pearson  $r$  coefficients.

**Table 21. Regression Analysis for Stratum 14**

<b>TotalDis (N=29)</b>		
<b>Variables</b>	<b>Coefficient (Sig)</b>	<b>Std. Error</b>
<b>TotalSCP</b>	-.338 (.096)	.831
<b>TotalStud</b>	.397 (.034)*	.586
<b>TotalStaff</b>	-.054 (.753)	.601
<b>Use of LE</b>	.382 (.031)*	4.192
<b>Community Crime Level</b>	-.522 (.006)**	1.660
<b>Classroom Changes</b>	-.229 (.156)	2.904
<b>R<sub>2</sub></b>	.501	
<b>F statistic (df)</b>	3.680 (28)	

\* $p<.05$ ; \*\* $p<.01$  (two-tailed significance test)

### **Stratum 15: High Grade Level/Major Urban Community Type**

**Strategies used.** The mean number of SCP strategies (TotalSCP) used by campuses in stratum 15 ( $N=5$ ) was 10.20. All respondents indicated using at least nine SCP techniques aimed at reducing disorder. The mean value of student programs (TotalStud) used by campuses in this stratum was 6.00. All campuses utilized at least four student programs. Staff programs (TotalStaff) had a mean value of 5.88. All campuses utilized at least three staff programs. All five respondents reported that law enforcement officers were used in their campus. Due to a low number of responses, more in-depth descriptive statistics could not be provided.

**Relationship to disorder (bivariate).** Pearson correlation coefficients were analyzed using a two-tailed test to determine the strength of the relationships. No significant relationships were identified between school disorder and the strategies used to prevent disorder or the two environmental variables. There was no variation in the use of law enforcement; therefore, further analysis could be conducted.

#### **Stratum 16: High Grade Level/Rural Community Type**

**Strategies used.** The mean number of SCP strategies (TotalSCP) used by campuses in stratum 16 (N=5) was 8.80. All respondents indicated using at least six SCP techniques aimed at reducing disorder. The mean value of student programs (TotalStud) used by campuses in this stratum was 4.80. All campuses utilized at least three student programs. Staff programs (TotalStaff) had a mean value of 5.80. All campuses utilized at least two staff programs. Two out of the five (40.0%) respondents indicated the use of law enforcement officers on their campus. Due to a low number of responses, more in-depth descriptive statistics could not be provided.

**Relationship to disorder (bivariate).** Pearson correlation coefficients were analyzed using a two-tailed test to determine the strength of the relationships. No significant relationships were identified between school disorder and the strategies used to prevent disorder or the two environmental variables. There was no variation in the community crime level or number of classroom changes; therefore, no analysis could be conducted.

#### **Overall Findings (Between Strata)**

**Strategies used.** When combining respondents from all strata (N=538), the mean value for SCP measures (TotalSCP) was 9.30. A higher mean value of SCP measures

was found in high schools (9.82), followed by middle schools (9.29), and combined schools (9.21). Schools located in major suburban communities reported a mean value of 10.10. This value was the highest among all community types. The most frequently used SCP measures across all strata were requiring visitors to check-in at a central location, utilizing a closed campus, and controlling access to campus buildings. The least frequently used SCP measures were clear backpacks/bags or no bags allowed and requiring students to wear badges of picture identification.

Across all strata, the mean value for student programs (TotalStud) aimed at prevention and/or reducing incidents of disorder was 5.17. The highest mean value was found in high schools (5.34), followed by elementary schools (5.19), and middle schools (5.14). Schools located in major urban communities were found to have the highest mean value (5.67) of student programs. The most frequently used student programs across all strata were counseling services, mandatory bullying prevention education/training, and social integration programs. The least frequently used student program was students resolving student disputes or code of conduct violations.

The mean value for staff programs (TotalStaff) across all strata was 5.06. The highest mean value of staff programs was found in high schools (5.45), followed by middle schools (5.41), and combined grade levels (4.85). Schools located in major urban communities were found to have the highest mean value (5.55) of staff programs. The most frequently used staff programs were mandatory review/training on school discipline practices and procedures, mandatory bullying prevention education/training, and classroom management training. The least frequently used staff programs were



crime/incident prevention training, threat management, and training to identify students who exhibit early warning signs of violence.

Across all strata, 306 (56.9%) respondents reported that law enforcement officers were used in their campus to prevent and/or respond to incidents of disorder. The highest percentage of respondents reporting the use of law enforcement were from high schools (74.4%), followed by middle schools (72.8%), and combined grade levels (50.3%). The use of law enforcement was most common in schools located in major urban communities (90.6%), followed by major suburban (66.6%), and other community types (59.4%).

**Table 22. Mean/Percent Values for Strategies by Grade Level**

Grade Level	Mean value for SCP Measures	Mean value for Student Programs	Mean value for Staff Programs	% utilizing Law Enforcement
Combined	9.21	5.13	4.85	50.3%
Elementary	8.88	5.19	4.65	38.1%
Middle	9.29	5.14	5.41	72.8%
High	9.82	5.34	5.45	74.4%

**Table 23. Mean/Percent Values for Strategies by Community Type**

Community Types	Mean value for SCP Measures	Mean value for Student Programs	Mean value for Staff Programs	% utilizing Law Enforcement
Other	9.24	4.95	4.60	59.4%
Major Suburban	10.10	5.43	5.48	66.6%
Major Urban	9.96	5.67	5.55	90.6%
Rural	7.89	4.62	4.73	19.2%

**Relationship to disorder.** Overall, the majority of relationships identified in both the bivariate and multivariate levels of analyses were between the use of law enforcement and total disorder and the two environmental variables (i.e. community

crime level and number of classroom changes) and total disorder. The direction and strength of the relationships differed greatly among the strata.

## **CHAPTER VII**

### **DISCUSSION**

This research examined strategies used by Texas schools to reduce and/or prevent incidents of disorder. Past literature indicates that schools use a variety of reduction/prevention strategies to reduce and/or prevent incidents of disorder, but continue to implement strategies with minimal, if any, empirical support (Cheurprakobkit & Bartsch, 2005; Ballard & Brady, 2007; Gottfredson & Gottfredson, 2005; McDaniel, 2001; Na & Gottfredson, 2011; O'Neill & McGloin, 2007; Raymond, 2010; Wilson et al., 2001). To assess the effectiveness of such techniques in Texas schools, best practice encourages that researchers identify what specific strategies are being used by these specific but diverse schools (Ballard & Brady 2007; Cheurprakobkit & Bartsch, 2005; Coon & Travis, 2012; Gottfredson & Gottfredson, 2005; Hall & Bacon, 2005; O'Neil & McGloin, 2007; Patterson, 2007; Time & Payne, 2008). The current research also looked to isolate relationships between the strategies being used, environmental variables, and levels of school disorder. By assessing the relationships between commonly used strategies and current levels of disorder in Texas schools, progress toward systematic evaluation of these strategies can begin. Evidence of this quality is needed to guide schools in choosing appropriate and effective measures to prevent and/or reduce incidents of school disorder (Na & Gottfredson, 2011).

### **Strategies Used by Texas Schools**

The findings from this research indicate that schools in Texas are using a wide variety of strategies aimed at reducing and/or preventing school disorder. Specifically, the mean value (maximum value of 13.0) for SCP measures (TotalSCP) was 9.30, with high schools (9.82) and schools located in major suburban communities (10.10) having the highest value. The mean value (maximum value of 8.0) for student programs (TotalStud) aimed at prevention and/or reducing incidents of disorder was 5.17, with high schools having the highest mean value (5.34) followed by elementary schools (5.19). In addition, schools located in major urban communities were found to have the highest mean value (5.67) of student programs. The mean value (maximum value of 8.0) for staff programs (TotalStaff) across all grade level and community type combinations was 5.06. The highest mean value of staff programs was found in high schools (5.45) and in schools located in major urban communities (5.55). Finally, 306 (56.9%) respondents reported that law enforcement officers were used in their campus to prevent and/or respond to incidents of disorder. The highest percentage of respondents reporting the use of law enforcement came from high schools (74.4%). In addition, the use of law enforcement was most common in schools located in major urban communities (90.6%). These statistics provide evidence that Texas schools are using SCP techniques, educational programs for both staff and students, and law enforcement officers in an attempt to prevent and/or reduce incidents of disorder.

These findings are consistent with past literature regarding the types and frequency of strategies used by schools to reduce and/or prevent school disorder. Specifically, past research concludes that while all policies and procedures are aimed at

creating a safe and effective learning environment, a wide range of strategies are being utilized in an attempt to reach the common goal of safety in U.S. schools (Ballard & Brady 2007; Cheurprakobkit & Bartsch, 2005; Coon & Travis, 2012; Gottfredson & Gottfredson, 2005; Hall & Bacon, 2005; O'Neil & McGloin, 2007; Patterson, 2007; Time & Payne, 2008). According to the current research, Texas schools are no different in terms of the wide range of strategies being implemented. However, the fact that Texas schools use such a wide variety of techniques should not be considered negative. School environments and the needs of each individual school or campus differ greatly. Therefore, it is appropriate that schools use what is suitable for their specific environment and specific needs.

The use of such a wide variety of strategies further increases the need for systematic evaluation of all strategies being used by schools to ensure that the efforts of schools are making an actual difference in terms of school disorder. Simply implementing a large number of different strategies is not enough, and is likely a poor use of resources. The strategies implemented must be supported by evidence and identified as effective in reducing/preventing disorder. Therefore, future research must focus on testing the actual effect that this wide variety of strategies is having on levels of disorder, and also how various strategies function in different school environments.

### **Situational Crime Prevention Techniques**

SCP measures are arguably the most utilized strategy by schools when attempting to prevent and/or reduce school disorder. This research found that schools are using a variety of techniques that fall within the definition of SCP. The findings from this research suggest that SCP techniques (as currently applied) have little if any relationship

with levels of school disorder. Across all grade level and community type combinations, only one significant relationship was discovered between TotalSCP and TotalDis. This relationship was found in middle schools located in “other” community types (i.e. stratum 13). The association was present in the bivariate level of analysis ( $r=.460$ ,  $p<.01$ ), but not in further multivariate analysis ( $r=-.10$ ,  $p=.958$ ). The relationships between SCP measures and TotalDis in all other grade level and community type combinations varied greatly in direction (i.e. positive and negative) and strength (i.e. 0-1.0), and were not statistically significant.

In addition, the one significant relationship found was positive, suggesting that increasing the use of SCP measures would increase the level of disorder, or that decreasing the number of SCP measures would decrease incidents of disorder in these schools (i.e. middle schools located in “other” community types). This finding provides partial support for the hypothesis that SCP measures will have a positive relationship with levels of disorder (the more SCP techniques used, the higher the level of disorder). Logically, this finding may not carry much merit, but does call for further inquiry. A concern is which comes first in schools - the implementation of SCP techniques, or the incidents of disorder. This concern is one of temporal order. It is likely that schools with more disorder have more SCP measures, but it is important to determine if the SCP measures are implemented as a response to disorder, or if they are in place before the disorder and simply lacking effectiveness. Establishing the temporal order of this relationship will assist researchers and school officials in their attempt to understand the true effectiveness of such measures. Understanding the temporal order of these variables

is of great importance for school personnel when considering the implementation of SCP measures.

The positive relationship and several non-relationships between SCP measures and levels of disorder found in the current research support the claims in past research to examine these measures using a more systematic approach. Past research concludes that SCP measures do not ultimately reduce disorder, but hold it constant (Ballard & Brady, 2007; O'Neill & McGloin, 2007). Past and current research can be improved if a baseline measure of disorder was established before various SCP techniques were implemented, thus allowing the assessment of SCP measures under the same established baseline measure of disorder. This continuity will deepen the understanding of the relationship between SCP measures and levels of disorder, which includes the temporal order of the relationship and the actual effect these measures have on school disorder.

### **Educational Programs for Students and Staff**

Similar conclusions can be made for the use of student and staff educational programs aimed at reducing and/or preventing incidents of disorder. The findings indicate that Texas schools are frequently using educational programs for both students and staff in an attempt to prevent and/or reduce incidents of disorder. However, in regards to student educational programs (TotalStud), no significant relationships were found with TotalDis across all grade level and community type combinations. The statistics varied greatly in direction (i.e. positive and negative) and strength (i.e. 0-1.00). In addition, only one significant relationship was found between staff programs (TotalStaff) and TotalDis. The relationship appeared in middle schools located in “other” community types (i.e. stratum 13). The association was found in the bivariate level of

analysis ( $r=.428$ ,  $p<.01$ ), but did not remain in the multivariate level of analysis ( $r=.396$ ,  $p=.070$ ). The one significant relationship was positive, and only moderate in terms of its strength of significance. Analogous to the findings in regards to SCP measures, a positive relationship suggests that as the number of staff programs increases, the level of disorder will also increase or as the number of staff programs decrease the level of disorder will decrease in these schools (i.e. middle schools located in “other” community types). Again, such a conclusion does raise the need for further investigation into the use of educational programs aimed at reducing and/or preventing incidents of disorder. These findings provide partial support for the hypothesis that educational-based programs will have no significant relationship with levels of disorder.

Past research concludes (Hall & Bacon, 2005; Time & Payne, 2008) that educational programs can be effective in reducing disorder when applied in the appropriate fashion and to the correct populations. The results of the current research indicate that educational programs for staff and students are unrelated to the incidents of disorder in Texas schools and may need to be evaluated in terms of the methods and to which population they are being delivered. The varying conclusions in terms of effectiveness may be attributed to the differences among campuses (Astor et al., 2005). Therefore, each campus should customize programs to suit their needs. Time and Payne (2008) found programs that including interaction between students and school staff members were the most effective at reducing disorder. Although some educational-based programs have been shown to be effective in reducing school disorder, the research is inconclusive as to the specific school or campus components and implementation methods that make a program effective.



The findings of the current study suggest that future research on educational programs for students and staff needs to focus on evaluating programs in the environment in which they will be implemented. Assessing a program while considering the school environment will allow school administrators to evaluate the components of a program in their school climate or environment and subsequently alter the program to fit a specific school and its needs. In addition, as suggested by past literature, educational programs should seek to develop relationships between students and staff, thus creating a climate of trust. A true assessment of program effectiveness must consider the school climate or environment and not simply the theoretical concepts of the program. Overall, past literature concludes that educational programs for students and staff are an effective medium to prevent and/or reduce incidents of disorder. However, programs in Texas school must evaluate the components and populations being served by current programs to ensure they have a connection with the incidents of disorder.

### **Law Enforcement**

The use of law enforcement officers in schools has continued to gain support as evidenced by the large percentage (56.9%) of schools in the research study that use them in some fashion. In addition, several significant relationships were found between the use of law enforcement officers in schools (Use of LE) and TotalDis. In schools that contain a combination of grade levels located in rural community types (i.e. stratum 4) and elementary schools located in “other”, major suburban, or major urban community types (i.e. stratum 5-7), the significant relationships between Use of LE and TotalDis was negative in the bivariate level of analysis. All significant relationships, including the direction, were preserved in the multivariate level of analysis. These relationships

indicate that as the use of law enforcement increases, the level of disorder decreases and as the use of law enforcement decreases, the level of disorder increases in these schools (i.e. combination of grade levels located in rural community types and elementary schools located in “other”, major suburban or major urban community types). There was also a positive relationship between the use of law enforcement in schools and TotalDis discovered in middle school located in major suburban community types (i.e. stratum 14). This finding would suggest a very different relationship between the use of law enforcement and levels of disorder, in that as the use of law enforcement increased so would the level of disorder, and vice versa. The findings provide partial support for the hypothesis that the presence of law enforcement will have a negative relationship (the increased use in law enforcement, the lower the level of disorder) with levels of disorder.

This research has demonstrated that the use of law enforcement officers by Texas schools to reduce incidents of disorder has become a popular strategy. However, as Raymond (2010) concludes, very little prior research has gone beyond descriptive statistics (e.g. traits of a good SRO, daily tasks for an SRO, how to begin an SRO program, etc.) in regards to the use of law enforcement in schools. Only two studies have attempted to examine the effectiveness of law enforcement in schools while utilizing a comparison group and the studies produced conclusions that were conflicting (Jackson, 2002; Theriot, 2009). In addition, flaws in research methodologies have caused other researchers to question the validity and reliability of the studies (Na and Gottfredson (2011). Although the effectiveness of law enforcement officers in terms of reducing disorder in schools is widely unknown, the findings of the current study indicate potential relationships that may be beneficial to schools or campuses in their attempt to prevent

and/or reduce school disorder. However, future research needs to empirically evaluate the use of law enforcement officers in school environments systematically (e.g. cause and effect) while utilizing appropriate research methodologies (e.g. comparison group, random sample, etc.) in order to determine the actual causal effect law enforcement have on school disorder.

The fact that several negative relationships and one positive relationship were discovered between Use of LE and TotalDis indicates that implementation methodologies and other environmental factors may influence the relationship with incidents of disorder. This finding suggests that using law enforcement may not work in all school types, and evaluation of such strategies should consider the school environment. In addition, descriptive studies on the use of law enforcement in schools are abundant, and schools have likely consulted this body of knowledge when implementing officers, as a result of the growing popularity of the strategy. School administrators and policymakers now need researchers to evaluate the use of law enforcement in terms of preventing and/or reducing incidents of disorder. Overall, this research identifies relationships of interest that are in need of more in depth research. Such research will ultimately provide support for or discourage the use of law enforcement officers in schools.

### **Environmental Characteristics**

It was hypothesized that environmental factors such as the crime level of the immediate community (within 1 mile) and the number of classroom changes would be related to levels of disorder on school campuses. This hypothesis was partially supported by the findings of this research. First, the community crime level was negatively correlated with TotalDis in combined, elementary, and high schools located in “other”

community types (i.e. stratum 1, 5, and 9) and also in middle schools located in major suburban community types (i.e. stratum 14). All relationships remained in the multivariate level of analysis except in elementary school located in “other” community types (i.e. stratum 5). Relationships in all other grade level and community type combinations were not significant. These negative relationships indicate that as the crime in the surrounding community increases, the level of disorder decreases, or as crime in the surrounding community decreases, the disorder within these school increases (i.e. combined, elementary, and high schools located in “other” community types and middle schools located in major suburban community types).

Logically, these relationships may not carry much merit, but several explanations can be considered. It is possible that schools with high crime levels in the surrounding community realize the increased need for strategies to prevent and/or reduce incidents of disorder, thus causing them to have more effective strategies in place to combat such behavior in school. Also, the opposite may be true; communities that have high levels of formal (e.g. police) and informal (e.g. strong family structure) control within the community may cause some disorder to be displaced into the school, where measures to reduce and/or prevent disorder may be lacking. The findings of this study indicate that crime levels in the surrounding community have a connection with disorder in some schools. Therefore, it must be considered when assessing disorder in schools.

Second, the number of classroom changes in a school was positively correlated with TotalDis in school with combined grade levels located in major urban community types and elementary schools located in “other” community types. The positive relationships indicate that as the number of classroom changes increases, the level of

disorder increases or as the number of classroom changes decrease, the level of disorder in these schools decreases (i.e. combined grade levels located in major urban community types and elementary schools located in “other” community types). These findings are consistent with past research by O’Neil and McGloin (2007) that concludes fewer classroom changes result in less property and violent crime in schools. It can be hypothesized that decreasing the number of classroom changes limits the opportunity for incidents of disorder to occur, because it lessens the time when large groups of students are less supervised in the school setting. Reducing the opportunity for disorder to occur is theoretically supported by routine activities theory (Cohen & Felson, 1979).

In addition, a negative relationship between the number of classroom changes and school disorder was found in middle schools located in “other” community types. This finding would suggest that as the number of classroom changes increases, the level of disorder decreases, or as the number of classroom changes decreases, the level of disorder in these schools increases (middle schools located in “other” community types). Again, logically this relationship does not carry much merit, but does highlight some potential inconsistencies that must be further evaluated in terms of how the number of classroom changes relates to incidents of disorder. The findings of this research in regards to the relationship between the number of classroom changes and levels of disorder must be systematically evaluated and considered in future research.

Overall, environmental variables have demonstrated important relationships with levels of disorder in schools. These environmental components of a school may not necessarily be controlled by the school in an effort to prevent and/or reduce incidents of disorder, but may have an indirect influence. In efforts to comprehensively evaluate

strategies used to combat school disorder, future research must consider the specific environmental factors of schools. Specifically, researchers should aim to systematically (i.e. cause and effect) evaluate the impact such environmental aspects have on incidents of disorder.

### **Limitations**

There are several limitations in this research that must be noted. First, there was a relatively low participant population, in certain stratum (i.e. 3, 8, 11, 12, 15, and 16), from which a sample could be drawn (i.e. below 75 campuses/principals). The lack of available campuses fitting stratum parameters (i.e. grade level/community type) was further compounded by several districts having an extensive review process, similar to Institutional Review Boards (IRB) found at Universities. Specifically, the reviews included the completion and submission of detailed forms outlining the research methodology, signatures guaranteeing research ethics and confidentiality, and a list of campuses and individuals to be included in the research. The reviews often took several months, and would only be approved for the following school year, which was beyond the current research study's methodology and timeline. In addition, several denials from district officials to approve to the research study in specific districts were encountered. These denials made certain participants (i.e. campus principals) unavailable to the research study. Not having an adequate population resulted in a low sample, which can affect the generalizability of the results. Further, the low participant population in certain stratum may have partially contributed to the low response rate (discussed below), because there were fewer campuses to participate at the outset, which may have further limited the results.

The second limitation of the study is the low overall and individual stratum response rates. It is important to note that past research has traditionally shown that online surveys have a lower response rate than traditional mail surveys (Crawford, Couper, & Lamiasm, 2001; Wright & Schwager 2008). However, online response rates typically average 16.5% (Wright & Schwager, 2008), while the current research had a response rate of 13.0%, with all but three individual stratum below this benchmark. The response rate of the current research was considerably lower than what is typically found in online survey research, and therefore potentially limits the findings. Ultimately, the choice given to participants to take the survey or not and an overwhelming majority choosing not to participate severely influences the random selection of the sample from the population. In a sense, when participants self-select out (i.e. choose not to participate), the sample becomes un-random. Subsequently, the low response rate may influence the generalizability of the findings. Specifically, a low response rate limits the representativeness of the sample to the population being study, which may cause the findings and conclusions to be inappropriate for the entire population.

The third limitation that must be noted is the use of self-report data. There are inherent concerns with the use of self-report data in all research studies that use such a data collection method. In some instances, asking principals to self-report levels of disorder within their own schools may not be the most accurate measure of the disorder or the strategies employed to combat these behaviors. Principals have a vested interest (e.g. salary, political pressure, etc.) in making sure disorder is kept to a minimum in their schools, therefore they may perceive disorder as lower than it actually is, or purposely provide lower responses on disorder measures in hopes of making the school look safer.

The same argument can be made for the strategies being used to prevent and/or reduce these behaviors. It is also possible that principals over-estimate the amount of disorder in their schools, and report higher responses on disorder measures, thereby reporting less than accurate data. Since the data provided by principals was not verified or crosschecked with official data (e.g. discipline counts, referrals, etc.), the potential concerns with self-report must be considered.

The final limitation of the study is the lack of a baseline measure for school disorder (TotalDis). The absence of a baseline measure prevents the research from being able to compare disorder before and after certain strategies aimed at reducing and/or preventing disorder were implemented. Therefore, the research is unable to make any causal inferences and can only make relational conclusions between the variables. In addition, causal inferences cannot be established because the temporal order of the variables is not known. Establishing temporal order of the variables is a necessary component of establishing casual relationships. Ideally, future research should utilize the current findings as support from the need to evaluate the relationships found or not found in an objective and systematic fashion (e.g. cause and effect). More in-depth analysis will allow valuable information to be available for school administrators considering a variety of measures to reduce and/or prevent incidents of disorder.



## **CHAPTER VIII**

### **CONCLUSION**

The results of this study indicate that Texas schools are using a wide variety of strategies, including situational crime prevention measures, educational programs for staff and students, and law enforcement officers to reduce and/or prevent incidents of disorder. In addition, research shows that certain environmental factors such as the crime level in the surrounding community and the number of classroom changes have a relationship with incidents of school disorder. However, past research has failed to systematically evaluate many of the strategies being utilized by Texas schools in terms of their effectiveness. Conversely, the current research has identified several relationships that are of interest, and therefore has begun the process toward systematically evaluating the strategies currently being used by Texas schools. Toward this end, future research in the area must continue to evaluate these relationships by implementing methodologies and analyses that allow for casual inferences to be drawn. In addition, strategies should be evaluated within the school environments where they will be implemented.

Highly publicized incidences of disorder have caused communities across the country to realize the shortcomings of school safety and prevention measures. With evidence that incidents of disorder, whether violent and non-violent, have the potential to negatively affect attendance rates, graduation rates, academic performance, and the overall perception of safety by students (Loukas, 2007; Milam, Furr-Holden, & Leaf,

2010; Patton, Woolley, & Hong, 2011; Symons, Cinelli, James, & Groff, 1997), the most effective prevention strategies that address disorder on school campuses must be identified and implemented. If the most effective prevention strategies are identified and utilized, an increasing majority of youth will experience school or campus environments that are systematically organized for successful development and/or lifelong learning. In addition, by reducing the level of disorder and limiting the negative effects disorder has on students, parents, and staff, school environments can enhance opportunities for academic success for a wider student population.

## **APPENDIX A**

### **CONSENT FORM**

#### **Consent Form**

#### **School Disorder and the Current Strategies Utilized: An Analysis of Texas Schools**

**IRB Approval #: 2012J8261**

The purpose of this research is to assess the different types of strategies employed by school administrators in Texas to prevent school disorder. You have been asked to participate in the study because as a school principal, you can provide important information about the strategies used in your respective school to contest incidents of school disorder. If any questions before, during, or after the research study should arise, Joseph McKenna, Texas State University masters student and Research specialist for the Texas School Safety Center, can be contacted at (512) 245-1938 or [jmm272@txstate.edu](mailto:jmm272@txstate.edu).

A brief questionnaire of no more than 60 items that should take no more than 30 minutes to complete will be used to collect information. The research study will only require participants to provide information to this one-time questionnaire. Questions such as “How often did rape or attempted rape occur on your campus during the 2011-2012 school year?”, and “During the 2011-2012 school year was it a practice at your campus to perform random searches of students for contraband?” will be asked. By establishing strategies that have a relationship with disorder levels, the current research hopes to provide school administrators, including participants, with information that will help administrators craft and implement well-informed decisions when combating school disorder.

The information provided on the questionnaire is anonymous. Data will be presented on a summative level and requires no need for principals to reveal identifying information. If any participant provides identifying information, the questionnaire will be discarded and not included in the research. Information will be secured by a user name and password in the online survey software, ensuring only research staff has access to the data. Data and project materials will be kept for at least a three-year period following completion of the study. If requested, a summary of the findings will be provided to participants upon completion of the study.

There are no expected physical and/or psychological risks to participants. Participation is voluntary and those involved may withdraw at any time without penalty. In addition, participants may choose not to answer certain questions at their own discretion. Any questions regarding

research, research participants' rights, and/or research related injuries should be directed to the IRB chair, Dr. Jon Lasser (512-245-3413 – [lasser@txstate.edu](mailto:lasser@txstate.edu)), or to Ms. Becky Northcut, Compliance Specialist (512-245-2102) at Texas State University-San Marcos. Also, please print this form for your records.

☐ By checking the box, I consent to or give permission for my participation as a volunteer in this research study. I have read this form and understand the content. The check box is equivalent to the signature of a participant.

## APPENDIX B

### QUESTIONNAIRE

#### School Disorder and the Current Strategies Utilized: An Analysis of Texas Schools

##### Definitions

The following words are underlined wherever they appear in the questionnaire.

**Anonymous Reporting System**— a process that allows students, parents, or staff to report activities, threats or concerns without identifying themselves

**At school / at your school** — includes activities happening in school buildings, on school grounds, on school buses, and at places that are holding school-sponsored events or activities

**Behavioral Intervention**— the use of operant conditioning models (positive and negative reinforcement) to change an undesired behavior or set of behaviors

**Bullying**— a person that is exposed, repeatedly and over time, to negative actions on the part of one or more other persons, and he or she has difficulty defending themselves

**Closed Campus**— students remain on the campus during the school day as opposed to being able to leave during varies time of the day or during lunch period

**Comprehensive Bullying Program**— a program aimed to reduce and educate students and staff on bullying that includes 1) a needs assessment, 2) a reporting system, 3) policies and procedures, 4) staff development, 5) student instruction, 6) enforcement, and 7) an evaluation component

**Contraband** — any property that is illegal to produce or possess, in this case either by law or school policy

**Cyberbullying**—is bullying through email, instant messaging (IMing), chat rooms, web site posts, or digital messages or images send to a cellular phone; involves an imbalance of power, aggression, and a negative action that is often repeated

**Disorder**— a lack of order or regular arrangement; a continuous disturbance that disturbs normal classroom order

**Firearm/explosive device** — any weapon that is designed to expel a projectile by the action of an explosive (guns, bombs, grenades, mines, rockets, missiles, pipe bombs, or similar devices designed to explode)

**Gang** — an ongoing loosely organized association of three or more persons, whether formal or informal, that has a common name, signs, symbols or colors, whose members engage, either individually or collectively, in violent or other forms of illegal behavior

**Harassment**— to annoy persistently or create an unpleasant hostile situation for another by unwanted/unwelcomed conduct

**Hate crime** — a criminal offense or threat against a person, property, or society that is motivated, in whole or in part, by the offender's bias against a race, color, national origin, ethnicity, gender, religion, disability, or sexual orientation

**Non-lethal Weapon**— a weapon not capable of causing death; often used to gain control of a situation without the chance of fatal injury

**Physical attack or fight** — an actual and intentional touching or striking of another person against his or her will, or the intentional causing of bodily harm to an individual

**Rape** — forced sexual intercourse (vaginal, anal, or oral penetration)

**Robbery** — the taking or attempting taking of anything of value that is owned by another person or organization, under confrontational circumstances **by force or threat of force or violence** and/or by putting the victim in fear

**Safety and Security Training** — Instruction designed to inform and guide activities that would help provide safe outcomes for events and incidents and contribute to a safe environment (evacuation drills, training on roles and responsibilities within the emergency operation plans, first aid, and CPR training)

**Sexual battery** — an incident that includes threatened rape, fondling, indecent liberties, child molestation, or sodomy

**Sexual harassment** — unsolicited, offensive behavior that inappropriately asserts sexuality over another person; the behavior may be verbal or non-verbal

**Theft/larceny**— the unlawful taking of another person's property **without** personal confrontation, threat, violence, or bodily harm (e.g. stealing purse or backpack if left unattended)

**Vandalism** — the willful damage or destruction of property including bombing, arson, graffiti, and other acts that cause property damage

**Weapon** — any instrument or object used with the intent to threaten, injure, or kill (includes look-alikes if they are used to threaten others)

## School Disorder and the Current Strategies Utilized: An Analysis of Texas Schools

### Part 1: Physical Changes to Combat Disorder

**1. During the 20011-2012 school year, was it a practice at your school to do the following? (If your school changed its practices in the middle of the school year, please answer regarding your most current practices.) Circle one response on each line.**

Require visitors to sign or check in at a central location (e.g. main office)	Yes	No
Control access to school buildings during school hours (e.g., locked doors)	Yes	No
Control access to school grounds during school hours (e.g., locked gates)	Yes	No
Require students to pass through metal detectors each day	Yes	No
Require all visitors to pass through metal detectors each day	Yes	No
Perform one or more random metal detector checks on students and/or visitors	Yes	No
Utilize a <u>closed campus</u> for most students	Yes	No
Use one or more random dog sniffs to check for <u>contraband</u>	Yes	No
Perform one or more random searches for <u>contraband</u> (not using dogs)	Yes	No
Require drug testing for any students (e.g., athletes)	Yes	No
Require students to wear uniforms	Yes	No
Enforce a strict dress code (besides uniforms)	Yes	No
Provide a printed code of student conduct to students	Yes	No
Provide a printed code of student conduct to parents	Yes	No
Require clear book bags or ban book bags on school grounds	Yes	No
Require students to wear badges or picture IDs	Yes	No
Require staff to wear badges or picture IDs	Yes	No
Use one or more security cameras to monitor the school grounds	Yes	No



Provide telephones in most classrooms	Yes	No
Prohibit all tobacco use on school grounds	Yes	No
The use of an <u>Anonymous Reporting System</u>	Yes	No
Mandatory disciplinary procedures for instances of <u>bullying</u>	Yes	No
Mandatory disciplinary procedures for instances of <u>cyberbullying</u>	Yes	No

## **Part 2: Educational Programs to Combat Disorder**

### **Student Programs**

**2. During the 2011-2012 school year, were there any formal programs, at your school, intended to prevent or reduce disorder that included the following components *for students*? If a program has multiple components, answer yes for each that applies. (Circle one response on each line.)**

Crime Prevention curriculum, instruction, or training (e.g., social skills training)	Yes	No
<u>Behavioral intervention</u> or behavior modification programs	Yes	No
Counseling, social work, psychological, or therapeutic activities	Yes	No
Individual attention or mentoring of students by other students	Yes	No
Individual attention or mentoring of students by adults	Yes	No
Recreational, enrichment, or leisure activities	Yes	No
Student involvement in resolving student conduct problems (e.g., student court, peer mediation)	Yes	No
Programs to promote sense of community/social integration among students	Yes	No
Mandatory <u>bullying</u> program for a selected group of students	Yes	No
Mandatory <u>bullying</u> program for all students	Yes	No
<u>Comprehensive bullying program</u>	Yes	No

**Staff Programs**

**3. During the 2011-2012 school year, were there any formal programs, at your school, intended to prevent or reduce disorder that included the following components *for staff members*? If a program has multiple components, answer yes for each that applies. (Circle one response on each line.)**

Training, supervision, or technical assistance in classroom management	Yes	No
Mandatory review of school-wide discipline practices and procedures	Yes	No
Training in crime prevention techniques	Yes	No
Mandatory <u>bullying</u> prevention program	Yes	No
Training to recognize early warning signs of potentially violent students for teachers (not administrators or counselors)	Yes	No
Basic school <u>safety and security training</u>	Yes	No

**Part 3: Use of Law Enforcement to Combat Disorder**

**4. During the 2011-2012 school year, were paid law enforcement or security services used at your school? **If no then SKIP to #7.****

	Yes	No
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**5. During the 2011-2012 school year, at what times did your school regularly use paid law enforcement or security services at school? (Circle one response on each line.)**

During school hours	Yes	No
While students were arriving and/or leaving	Yes	No
At selected school activities (e.g., athletic and social events)	Yes	No
When school/school activities are not occurring (i.e. overnight)	Yes	No
Other (please specify)_____	Yes	No

**6. On average, how many hours per week did at least one paid law enforcement or security person do the following at your school? (If two or more people did these in the same hour, count that as only 1 hour.)**

Was on duty per week, on average \_\_\_\_\_ hours

Wore a uniform or other identifiable clothing \_\_\_\_\_ hours

Carried a firearm or other lethal weapon \_\_\_\_\_ hours

Carried a non-lethal weapon \_\_\_\_\_ hours

Educated staff and/or students about various topics related to crime prevention, bullying, and safety \_\_\_\_\_ hours

Mentored students \_\_\_\_\_ hours

Active enforcement of criminal and school laws/rules (e.g., citations, removing students from class, investigations) \_\_\_\_\_ hours

#### **Part 4: Level of Disorder**

**7. How often did the following types incidents occur at your school during the 2011-2012 school year? (Circle one response on each line.)**

	Never Happens	Happens at Least Once a Month	Happens Weekly	Happens Daily
Student <u>bullying</u>	1	2	3	4
<u>Cyberbullying</u>	1	2	3	4
Widespread <u>disorder</u> in classrooms	1	2	3	4

Student verbal abuse of teachers	1	2	3	4
Student acts of disrespect towards teachers	1	2	3	4
<u>Gang</u> activities (i.e. tagging, wearing colors, etc.)	1	2	3	4
Online <u>harassment</u> of students by other students (that does not meet the definition of cyberbullying)	1	2	3	4
<u>Harassment</u> of students by other students	1	2	3	4
<u>Rape</u> or attempted rape	1	2	3	4
<u>Sexual battery</u> other than rape	1	2	3	4
<u>Physical attack or fight</u> with a <u>weapon(s)</u>	1	2	3	4
<u>Physical attack or fight</u> without a <u>weapon(s)</u>	1	2	3	4
Threats of <u>physical attack</u> with a <u>weapon(s)</u>	1	2	3	4
Threats of <u>physical attack</u> without a <u>weapon(s)</u>	1	2	3	4
<u>Robbery</u> with a <u>weapon(s)</u>	1	2	3	4
<u>Robbery</u> without <u>weapon(s)</u>	1	2	3	4
<u>Theft/larceny</u>	1	2	3	4
Possession of <u>firearm or explosive device</u>	1	2	3	4
Possession of knife or sharp object	1	2	3	4
Distribution of illegal drugs	1	2	3	4
Possession or use of illegal drugs or alcohol on school grounds (before, during, or after school hours)	1	2	3	4
<u>Sexual harassment</u>	1	2	3	4
<u>Vandalism</u>	1	2	3	4

Hate Crimes

1

2

3

4

**Part 5: School Environment****8. What is your current position or title at the school in which you work?**

- 1)Principal                      2)Assistant/ Vice    3)Administrative                      4)Other\_\_\_\_\_ -  
Principal                      Assistant                      \_\_\_\_\_

**9. How many classroom changes did most students make in a typical day, at your school, during the 2011-2012 school year? (Count going to lunch and then returning to the same or a different classroom as two classroom changes. Do not count morning arrival or afternoon departure)**

- 1)0                                  2)1-3                                  3)4-6                                  4)6+

**10. How would you describe the crime level in the area(s) in which your students live? (Circle only one response.)**

- 1)High                                  2)Moderate                                  3)Low                                  4)Mixed

## APPENDIX C

### DEBRIEFING SHEET

#### Debriefing Sheet

#### School Disorder and Policy Responses: An Analysis of Texas Independent School Districts

Thank you for your time and participation in this research study. Your contribution to this study is greatly appreciated. The main focus of this study was to identify relationships between the strategies used to combat school disorder and actual incidents of disorder in Texas schools. The first three sections of the questionnaire were used to identify the types of disorder strategies most frequently used in Texas schools. The fourth section of the questionnaire identified how often certain incidents of disorder occurred during the 2011-2012 school year. The final section of the questionnaire identified the characteristics of your schools environment.

Researchers will use the data you provided to analyze the relationships between strategies used to combat disorder, characteristics of a schools environment, and incidents of school disorder. By establishing strategies that are effective at reducing disorder, the current research hopes to provide school administrators, including participants, with information that will allow for well-informed decisions when combating school disorder. Knowing the effectiveness and limitations of disorder strategies, before implementation, will allow school personnel to make best decisions when approaching issues of safety and security.

It is important that you do not show this debriefing sheet or discuss any of the details of the research any other principals or colleagues of yours. In order for accurate results to be obtained it is important that potential future participants do not have access to this information. Thank you.

If you would like more information, or have any further questions about any aspect of this study, then please feel free to contact me.



**Principal Investigator:**

Joseph McKenna  
Texas State University-San Marcos  
Department of Criminal Justice  
(512) 245-1938  
[Jmm272@txstate.edu](mailto:Jmm272@txstate.edu)

## APPENDIX D

### INTRODUCTION EMAIL

Dear [INSERT PRINCIPAL NAME],

My name is Joseph McKenna and I am a graduate student in the Department of Criminal Justice at Texas State University-San Marcos and also a Research Specialist for the Texas School Safety Center. I am in the process of collecting data that will be used in completing my Master's thesis. My specific research interests include school violence and disorder, crime prevention, and the establishment of effective policy and procedures in schools to prevent incidents of disorder. I believe the area of school violence and disorder is a very important and timely topic to schools and communities across Texas.

I am asking for your participation in a brief questionnaire that will provide insight into the strategies currently being used to contest incidents of school disorder and their relationship to levels of disorder. Questions such as "How often did rape or attempted rape occur on your campus during the 2011-2012 school year?", and "During the 2011-2012 school year was it a practice at your campus to perform random searches of students for contraband?" will be asked. This questionnaire is completely voluntary, and all information provided by you is strictly anonymous. This research has been reviewed and approved by the Institutional Review Board at Texas State University-San Marcos and is being supervised by a committee made up of faculty from the Criminal Justice Department and the Texas School Safety Center. The survey will take approximately 10 minutes to complete.

If you are no longer the Principal of the school, please advise me so I may contact the correct individual. Also, if your district has an external research policy, and I must gain approval before you can participate, please notify me and I will follow all required procedures. I have gained approval in several districts; if you are unsure of your districts status please contact me. If you receive this email more than one time it is likely because you are listed as the principal of multiple schools. Please fill the survey out for each email you receive. I would be happy to answer questions or address concerns you may have about this research. Please contact me using the information provided below.

A hyperlink for the survey is listed below. Once you click on the link, you will be asked to give voluntary consent; once this is given, you will have full access to the questionnaire. My deadline to have surveys completed is June 15, 2012.

[INSERT HYPERLINK FOR SURVEY]

Sincerely,

A handwritten signature in blue ink, appearing to read "Joe McKenna", with a stylized flourish at the end.

**Principal Investigator:**

Joseph McKenna

Texas State University-San Marcos

Department of Criminal Justice

(512) 245-1938

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## APPENDIX E

### REMINDER EMAIL

Dear [INSERT PRINCIPAL NAME],

My name is Joseph McKenna and I am a graduate student in the Criminal Justice Department at Texas State University-San Marcos in San Marcos, TX and also a Research Specialist for the Texas School Safety Center. Five weeks ago I sent you an email asking for your participation in a research project titled, *School Disorder and the Current Strategies Utilized: An Analysis of Texas Schools*. In addition to this study being my Master's thesis it is also a topic that I am very passionate about and have done extensive research in. This current research project has been reviewed and approved by the Institutional Review Board at Texas State University-San Marcos and is being supervised by a committee made up of faculty from the Criminal Justice Department and the Director of the Texas School Safety Center.

I have received a number of responses and would like to thank everyone who has taken the time to participate. If you have not had a chance to participate, I would greatly appreciate your help by taking a 10 minute survey. If you are no longer the Principal of the school, please advise me so I may contact the correct individual, or if possible, please forward the link to the current Principal. Also, if your district has an external research policy, and I must gain approval before you can participate, please notify me and I will follow all required procedures.

A hyperlink is provided below if you have not participated already. Once you click on the link, you will be asked to give voluntary consent; once this is given, you will have full access to the questionnaire. My deadline to have surveys completed is June 15, 2012.

[INSERT HYPERLINK FOR SURVEY]

\*\*\*If you have already responded to the questionnaire please disregard this email. Due to the fact that I have provided participants with anonymity, I am not able to decipher between those participants that have participated and those that have not. \*\*\*

Sincerely,



**Principal Investigator:**

Joseph McKenna  
Texas State University-San Marcos  
Department of Criminal Justice  
(512) 245-1938  
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## **VITA**

Joseph M. McKenna was born in Boston, Massachusetts on August 22, 1988, the son of Joseph M. McKenna and Joan M. McKenna. After completing his work at Mansfield High School, Mansfield, Massachusetts in 2007, he entered Roger Williams University in Bristol, Rhode Island. He received the degree of Bachelor of Science from Roger Williams in May 2011. In August 2011, he entered the Criminal Justice Master's program at Texas State University-San Marcos. While working on his Master's degree at Texas State, he was employed as a Research Specialist at the Texas School Safety Center.

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This thesis was typed by Joseph M. McKenna.