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School Resource Officer programs: implementation's effect on student perceptions of safety

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SCHOOL RESOURCE OFFICER PROGRAMS:
IMPLEMENTATION'S EFFECT ON STUDENT PERCEPTIONS OF SAFETY

By

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Abstract

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School Resource Officer (SRO) Programs are a widely implemented community policing initiative in schools. The limited research on SRO Programs suggests that there are implementation differences between programs. This study explores the effect that implementation style has on program effectiveness as measured by student perceptions of safety as well as student reporting behaviors. This study found mixed results. Direct analyses revealed students who attend schools with community-oriented SRO programs feel slightly safer. Multi-level modeling was utilized to determine the effects that individual and school level variables have on perceptions of safety and on the ability of SRO programs to affect student perceptions. The results of this analysis indicated that none of the included school level variables had an effect on perceptions of safety. SRO program orientation could not be included in multilevel analysis due to sample size limitations. Reporting behavior was also unaffected by SRO program implementation. Students attending schools with community-oriented SRO programs were slightly more likely to indicate reporting to "no one" than law enforcement oriented programs. The benefits of a School Resource Officer are still debated in the literature; this research will be able to begin to parse out the components of a successful SRO program.

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Chapter 1
Introduction

A strong education is of paramount importance. "Learning is only possible in an environment that is free of violence and encourages mutual respect, self-confidence, and cooperation" (Johnson, 1999, p. 173). Assuming this is true, it is understandable why there has been a movement in America to provide a safer learning environment free from the influences of guns, drugs, and gangs. This concern for safety in schools has spawned a variety of new school-based programs, including the School Resource Officer (SRO) program. SROs are police officers assigned to operate in schools on either a full time or part time basis. Current research on SRO programs provides evidence that SRO activities vary greatly but include traditional law enforcement activities as well as community-oriented activities. This program has introduced police officers into schools on a more regular basis. The addition of an SRO has the possibility to be an invaluable tool to provide for the students' need for a sense of safety.

According to social disorganization theory, schools are one of the conventional institutions that are thought to help prevent juveniles from committing delinquent acts, (Cullen & Agnew, 2006, Shaw & McKay, 1972, p. 324). As a result, it is important to ensure that schools are safe to act as conventional institutions. Shaw and McKay expanded social disorganization, which stemmed from the works of Park, Burgess and McKenzie (1925) to help explain increased levels of delinquency in city centers when compared to areas surround cities (Cullen & Agnew, 2006; Shaw & McKay, 1972, p. 18). The work of Shaw and McKay (1972) analyzed the trends of delinquency as well as many other variables, like home ownership and industry, based on location. Their study found that proximity to the city center increased the level of delinquency as well as other

variables that were associated with social disorganization, such as truancy (Shaw & McKay, 1972, p. 90-93).

Social disorganization has been tested with juvenile delinquency with mixed results in the work of Ennett and colleagues (1997), Nash and Bowen (1999), and others (Welsh, Greene & Jenkins, 1999; Yabiku, Kulis, Marsiglia, Lwein, Nieri & Hussaini, 2007). Considering that neighborhood and community traits are important to consider in delinquency, SRO programs, as a part of school and community characteristics, should be evaluated for their influence on delinquency rates. There is currently a research gap within SRO programs and their impacts on the student population.

Previous research suggests that police became involved in schools with the onset of the paradigm of zero-tolerance disciplinary actions and the passing of the Gun Free Schools Act (Price, 2009). The Gun-Free Schools Act of 1994 requires a one-year suspension from school for students who bring guns to schools (Skiba & Knesting, 2001; Skiba, 2000). Students in violation of the law are required to be referred to a criminal or juvenile court (Skiba & Knesting, 2001; Skiba, 2000). Furthermore, a fear of drugs and increased media attention of school violence has led to a public perception that schools are unsafe (Price, 2009). As a result, police have been placed in schools in many jurisdictions (McDevitt & Panniello, 2005; Price, 2009), with approximately 12,000 full time SROs working as of 1999 (Finn, Shively, McDevitt, Lassiter, & Rich, 2005). Once police were introduced into schools, it was necessary to determine which activities these police officers would engage in while acting as SROs. Police already had traditional activities to perform, such as keeping public order, filling out police reports and conducting investigations (Finn, Shively, McDevitt, Lassiter, & Rich, 2005). At the

time that SROs were being introduced, approximately 30 years ago (Johnson, 1999), police departments were also starting to implement more community-oriented tactics. For example, Drug Abuse Resistance Education (DARE) was an early program that had police officers educating students about drugs while in the school setting (Ennett, Tobler, Ringwalt, & Flewelling, 1994).

The SRO job description and means of implementation vary based on the needs of the school district and police department. This requires schools and local police departments to work together to decide whether they are in need of a traditional approach or community-oriented approach. Police behavior can be characterized by a number of styles ranging from purely law enforcement to order maintenance, as has characterized by the work of Wilson (1972). The differing roles of police have been extended to SROs by the work of Peter Finn and colleagues (2005). In this research, SROs are divided into law enforcement, teaching, and mentoring oriented (Finn et al., 2005). Law enforcement oriented activities include helping to run metal detectors and disperse crowds. Mentoring activities include after school sport programs and counseling. Finally, teaching activities include teaching DARE and GREAT programs as well as other programs designed by the SRO. The current study only makes the distinction between law enforcement and community-oriented activities.

Evaluations of both law enforcement and community-oriented programs implemented by SROs suggest success. The work of Johnson (1999) found that law enforcement approaches are effective in reducing school delinquency rates based on disciplinary action, such as dropping rates of school suspensions, while the work of Van Houten, Van Houten, and Malenfant (2007) found that community-oriented projects

could also be effective. In this study, a program implemented by SROs was effective in increasing bicycle helmet use in elementary school students (Van Houten, Van Houten, & Malenfant, 2007).

Previous studies have recognized and explored the issue of differing implementation styles (Finn & McDevitt, 2005; Finn et al., 2005). These studies suggest that the level of crime and disorder, the desires of the school district, and the personal experience of the SRO are all factors that decide whether the implementation will be more traditional or community-oriented (Finn et al., 2005). The varying methods of implementation lead to the question of how different implementation characteristics affect the program's outcome.

The purpose of the current study is to determine how different implementation styles in SRO programs affect the students' perception of safety. McDevitt and Panniello (2005) have addressed students' perceptions of safety in the presence of SROs in the past. Their study was focused on three new, large-scale implementations. This study investigated the reporting behavior of students based on their perceived safety and factors that affected perceived levels of safety (McDevitt, & Panniello, 2005). This study will attempt to expand upon this research by determining what effect implementation style has on students' perceptions of safety. Data from surveys with the school resource officers will help to classify the participating schools as either law enforcement or community-oriented approaches. The law enforcement and community-oriented implementation groups will then be compared while addressing perceptions of school safety.

This research is important to further our understanding of the effect that SROs have on students, which is the primary community that they serve. SROs are a relatively

new phenomena and growing in popularity. As a result, research explaining their effectiveness is of value to further understanding SRO programs. Before describing the details of the current study, an overview on the current state of SRO programs is necessary.

Chapter 2
Literature Review

Schools are one of the major conventional institutions that decrease the likelihood of participation in delinquency (Cullen & Agnew, 2006; Shaw & McKay, 1972, p. 324), which is a cornerstone of social disorganization theory. This theory originated from Chicago School of Criminology as a result of observations by staff of the University of Chicago (Cullen & Agnew, 2006). The Chicago School focused upon the environment rather than the individual, which was the predominant focus in previous criminological theories (Cullen & Agnew, 2006). This is not the first time that criminal activity was compared between different geographic locations as examples are cited in the work of Shaw and McKay (1972) starting as early as 1833 (p. 5). Robert Park, Ernest Burgess, and Roderick McKenzie (1925) developed one of these early theories to determine how the environment has an impact on criminal activity (Cullen & Agnew, 2006; Shaw & McKay, 1972, p. 18). Their theory suggests that urban areas can be separated into 5 concentric circles starting in the center of the city and moving outward (cited in Shaw & McKay, 1972, p. 18-19). The center of the city contains the business and industrial districts, followed by the transition zone, the "workingmen's homes," the "residential zone," and on the "commuter zone" at the furthest part of the city (Shaw & McKay, 1972, p.18-19). According to the theory, these zones are constantly expanding in a growing city, which leaves the socioeconomically disadvantaged in the zone of transition because they are the least sought after locations (Shaw & McKay, 1972, p. 21).

Shaw and McKay developed social disorganization theory to determine the effect of neighborhood variables in delinquency (Nash & Bowen, 1999). More specifically, areas closer to the city center will have higher levels of delinquency because these areas

are characterized by higher concentrations of poverty, transience, and heterogeneity (Cullen & Agnew, 2006). Social disorganization theory suggests that neighborhood characteristics, such as those previously mentioned, and institutions can have an effect on behaviors (Ennett, Flewelling, Lindrooth, & Norton, 1997; Nash & Bowen, 1999; Shaw & McKay, 1972, p. 169). More specifically, neighborhoods that do not provide for stable and safe living conditions can increase negative behaviors as a result of conflicting values, which stem from weak neighborhood institutions and lead to an emphasis on delinquency (Shaw & McKay, 1972, p. 316). Important neighborhood characteristics include: poverty, cultural heterogeneity, and transience (Cullen & Agnew, 2006; Nash & Bowen, 1999). These characteristics result in increased rates of delinquency because they weaken positive social institutions, such as family, and can no longer prevent juveniles from joining criminal organizations (Cullen & Agnew, 2006). Furthermore, strong neighborhood institutions can provide for an informal social control; this results in less delinquent activity and allows experimentation to be addressed more effectively (Nash & Bowen, 1999).

The work of Shaw and McKay (1972) focused on the Chicago area and also applied a similar analysis to other cities. This study analyzed the rates of juvenile delinquency based on geographic area (p. 3-4). The authors found that the delinquency rates, as well as other characteristics like rates of tuberculosis (p. 101) and rates of infant mortality (p. 99), were found in higher concentrations near the center of the city (Shaw & McKay, 1972). According to Ram (2005) the link between income inequality and public health has received significant attention. Recent research has found a negative correlation between income inequality and public health (Ram, 2005). These rates

decreased the further from the center city the individual lived (Shaw & McKay, 1972, p. 106). Furthermore, the study found increased levels of recidivism in areas that had higher rates of delinquency (Shaw & McKay, 1972, p. 138). Shaw and McKay (1972) state that the concentration of industry in the area of increased delinquency is not the cause of the delinquency, but rather community conditions are related (p. 145). Areas of high delinquency are found in the city center, which is where industry is pushing out into surrounding concentric circles (Cullen & Agnew, 2006; Shaw & McKay, 1972, p. 143). This leads to increased levels of poverty and other neighborhood characteristics of social disorganization (Cullen & Agnew, 2006; Shaw & McKay, 1972, p. 143).

The research is then directed to a discussion of differing values based on socioeconomic status. The authors suggest that areas further away from the city that also have a population of higher socioeconomic status over the city center; populations further from the city center are also more likely to have similar values and attitudes to each other (Shaw & McKay, 1972). This leads to institutions designed to pass on these values, examples of which include churches and parent-teacher associations (Shaw & McKay, 1972, p. 171). The authors argue that these institutions are not as strong in lower socioeconomically disadvantaged areas (Shaw & McKay, 1972, p. 171). Shaw and McKay (1972) give several reasons for the decreased strength of community institutions, some of which include increased contact with other delinquents as well as the lack of the ability to create their own community institutions (p. 183-184). This results in the creation of "nonindigenous agencies" which are not as effective because they are not adopted as an institution by the locals (Shaw & McKay, 1972, p.185). Shaw and McKay (1972) cite boys' clubs as an example of nonindigenous agencies when they are largely

developed, funded, and staffed by members not included in the local population to address local problems (p. 185). Furthermore, these agencies show a lack of effectiveness because they have been implemented for an extended period of time without significant impact on delinquency rates (Shaw and McKay, 1972, p. 185). The work of Shaw and McKay (1972) discovered that increases in delinquent activity based on the proximity to the city center and zone of transition found in the study of Chicago also occurred in Philadelphia, Pennsylvania (p. 222), Cincinnati, Ohio (p. 293), Cleveland, Ohio, and Richmond, Virginia (p. 312).

Social disorganization theory has been tested with juvenile delinquency with mixed success. The following are some works that support the supposition that social disorganization theory can explain juvenile delinquency. The work of Nash and Bowen (1999) shows support for constructs of social disorganization theory with respect to delinquent activity; this includes perceptions of social controls having a negative correlation with perceptions of neighborhood crime and perceptions of informal social control being significantly associated with perceived pro-social behavior. Based on these results, the author suggests an investment in after school activities (Nash & Bowen, 1999). The authors' findings and suggestion are in agreement with social disorganization theory, which posits that a breakdown in conventional organizations allows juveniles the opportunity to join delinquent organizations (Cullen & Agnew, 2006; Shaw & McKay, 1972, p. 316).

There is, however, a limited amount of research that applies social disorganization theory to changes in school characteristics (Ennett et al., 1997). The work of Ennett and colleagues (1997) addresses school rates of substance use within the scope of social

disorganization theory. Using a sample of fifth and sixth grade students, this study analyzed a number of different neighborhood characteristics including: perceptions of neighborhood safety, socioeconomic status, population mobility, social disorganization, and population heterogeneity (Ennett et al., 1997). The authors analyzed substance use, school characteristics such as substance use norms and school climate, and perceptions of acceptability of substances, victimization, and school attachment. Results from this study show that there was a correlation between school level characteristics and substance use with a weaker relationship between neighborhood characteristics and substance use; social disorganization was not found to have a significant impact on substance use (Ennett et al., 1997). There was, however, a significant correlation between social disorganization and the neighborhood characteristics found to be correlated with substance use (Ennett et al., 1997).

The following works found little support for social disorganization. Other studies indicate that school based prevention programs are less affected by neighborhood factors. The work of Yabiku and colleagues (2007) focused on a substance abuse prevention program administered to middle school students. This study found that there were few instances where the neighborhood effects had a significant relationship with risk-taking behavior (Yabiku, Kulis, Marsiglia, Lwein, Nieri & Hussaini 2007). There was a positive effect found in neighborhoods with high levels of recent immigrants; the authors attribute this to the increased supervision and low tolerance of substance use in recent immigrant communities (Yabiku et al., 2007). Furthermore, there was a negative impact on the outcome of the treatment program in areas with high rates of single-mother families (Yabiku et al., 2007). There were also findings that were contradictory to outcomes

based on social disorganization theory. For example, treatment programs had a stronger affect on the alcohol consumption in high crime areas than in lower crime areas (Yabiku et al., 2007). This research does state the necessity to analyze community and neighborhood factors when implementing programs because of the differential impact these factors could have on program efficacy (Yabiku et al., 2007).

The work of Welsh and colleagues (1999) found community level variables, such as poverty rates and stability, explained only a small percent of the variance in school misconduct as compared to individual level variables (Welsh, Greene & Jenkins 1999). Community level variables, however, did explain 90 percent of the variance of in-school misconduct between schools in the sample (Welsh, Greene & Jenkins 1999). As a result, Welsh and colleagues (1999) caution against the concept that communities characterized as more socially disorganized result in bad juveniles and schools. Knowing that previous research has found some evidence that neighborhood and community traits have an effect on treatment program outcomes suggests that these characteristics should be considered when determining the program effectiveness. This is true in the case of SRO programs being that they are recent additions to school programs. Furthermore, the proposed effect that neighborhood factors have on the delinquency rates, as per social disorganization theory, should be extended to SRO programs to determine their influence on school safety. Similar to previous studies of social disorganization theory, this study will analyze social disorganization characteristics to determine the effect that neighborhood characteristics, rather than SRO implementation style, has on perception of safety.

The origins of School Resource Officer (SRO) programs vary, but there is a consensus that they were created as a result of the increase in juvenile delinquency rates

in the in the late 1980's and early 1990's (McDevitt & Panniello, 2005; Price, 2009). The work of Price (2009) relates the introduction of police into schools as a result of the zero-tolerance policing strategies utilized in the educational setting. This process is exemplified by a story of police arresting and charging a six-year-old kindergarten student with "battery on a school official" (Price, 2009, p. 546). While the author does not comment on the regularity of this type of event, it seems that this is not the primary duty of the SRO. According to Price, zero-tolerance policing became the norm in schools by 1993 and national laws, like the Gun Free Schools Act, soon followed (2009). Zero-tolerance policing was implemented at a time when delinquency rates were dropping; as a result, this policing strategy was believed to be effective (Price, 2009). There was also an increase in media attention given to drugs and violence in school; for example, the media attention that followed from the Columbine shooting led to a high level of perceived danger in schools (McDevitt & Panniello, 2005; Price, 2009). Price states that this fear was unwarranted, as alcohol and drug use in schools were falling during the 1990's, as was school violence (2009). The solution to this increase in perceived fear was an increased presence of police officers in schools (McDevitt & Panniello, 2005; Price, 2009). In 1999, there were approximately 12,000 full time SROs (Finn et al., 2005). The number of schools with police or security presence has increased from 54 percent of schools in 1999 to 68 percent of schools in 2005, with a peak at 70 percent of schools in 2003 (Dinkes, Cataldi & Lin-Kelly, 2007). Furthermore, 70 percent of students aged 12 to 18 reported daily police presence in their schools during the 2003-04 school year (Price, 2009).

Once police became involved in schools, they operated in a variety of different roles. These functions ranged from traditional policing and security functions to activities consistent with community-oriented policing (COP) strategies like counseling and teaching (Finn & McDevitt, 2005; Finn et al., 2005; McDevitt & Panniello, 2005). Some research breaks the role of the SRO into three categories: law enforcement, teaching, and mentoring (Finn et al., 2005). These three categories still fall within the traditional policing and community-oriented policing functions, with law enforcement falling in the traditional police function while teaching and mentoring fall into the community-oriented function.

One of the first COP programs was implemented by schools was DARE. This program was started in 1983 (http://www.dare.com/home/about_dare.asp) by the Los Angeles Police Department (Ennett et al., 1994). The program is taught by specially trained police officers. These officers are trained in topics related to child development, teaching in classroom and communications (http://www.dare.com/home/about_dare.asp). The curriculum for DARE programs covers a number of different topics. A typical DARE class covers 17 lessons each taking approximately 45 minutes to an hour to teach (Ennett et al., 1994). These 17 topics cover more than just information about drug use. Additional topics are "decision-making skills, building self-esteem, and choosing healthy alternatives to drug use" (Ennett et al., 1994, p. 1394).

Following DARE programs, the second major COP program in schools is the SRO program. SROs have additional goals over that of DARE. Some of these goals are to promote school safety and engage in COP activities, which go beyond DARE's programs goals to decrease drug use. Brady and colleagues (2007) define school safety

as "a school environment in which students have a sense of belonging as well as personal efficacy, use of alternatives to violence to feel secure, and in which early warning signs of violence are actively addressed." (p.456). The later part of this definition is where the SRO officers are utilized. Ida M. Johnson (1999) believes that disciplinary events are more likely to be "detected, reported, recorded, and processed" if there is police officer in a school (p.176).

Available literature on SRO programs provides evidence that they vary greatly from one jurisdiction to the next (Brown & Benedict, 2005; Caine et al., 1998; Finn & McDevitt, 2005; Finn et al., 2005; Johnson, 1999; Van Houten, Van Houten & Malenfant, 2007). The officer's daily duties are the source of many of these variations. These duties break SRO roles into two classifications: law enforcement and community-oriented roles. The community-oriented role is sometimes subdivided into mentoring and teaching (Finn & McDevitt, 2005; Finn et al., 2005). It should be mentioned that it is common for SROs to engage in activities that are in fact a combination of the two approaches. Research has found that SRO programs fall between law enforcement and community-orientated (Finn & McDevitt, 2005; Finn et al., 2005; Garcia, 2003). Surveys of SRO use of time have found that approximately 50 percent of time is spent on law enforcement while the remainder of time is spent on community-oriented actions in schools (Finn et al., 2005). For example, studies have found that SROs develop after school sports programs (Johnson, 1999). Officers can also counsel students on personal problems as the students become comfortable with the officers (Finn et al., 2005). Care needs to be taken by the officers, however, to insure that the professional assistance is acquired when necessary, in order to protect themselves from potential civil liability

because officers are not trained medical professionals (Finn et al., 2005). There are also many influences on the ratio of time spent on the different roles of the SRO. The level of crime and disorder, the desires of the school district, and the personal experience of the SRO all have an effect on this ratio (Finn et al., 2005).

While functioning in the traditional police role, officers' activities include helping to run metal detectors and disperse crowds. In a survey of SROs, it was determined that crowd control is an important function of police officers present in school during various parts of the day (Johnson, 1999). SROs are also capable of completing routine police work that would ordinarily be processed by the local police department in the absence of an SRO. Examples of this are filling out police reports for theft and conducting investigations within in the school (Finn et al., 2005). Another advantage of having police act in the traditional policing role is their immediate availability to make an arrest if necessary. An additional benefit of having police in schools is that when an arrest is warranted, the student can be removed immediately, without having to wait for a patrol car (Johnson, 1999). Also, it was reported, through informal interviews with students at schools with SROs, that being handcuffed in front of a student's peers was embarrassing and acted as a deterrent (Johnson, 1999, p. 185).

Other attempts to utilize police in school acting in the traditional orientation have yielded mixed results. Chicago's "Safe School" programs, a partnership between Chicago schools, police departments, and community leaders, resulted in a decrease in violent crimes in schools (Brady, Balmer & Phenix, 2007, p. 458). A review of New York City's "Impact School Initiative," in which selected schools receive more school safety agents and double the number of NYPD officers at the school, found that the

program was ineffective (Brady, Balmer & Phenix, 2007). The impact schools, however, were compared to schools had lower levels of over-crowding, more funding, and other positive school characteristics that could have had an effect on the results (Brady, Balmer & Phenix, 2007). It is important to note that officers maintain their discretion while participating in some implementations of SRO programs. Caine and colleagues (1998) found that officers who were interviewed about their discretion reported that a student's previous behavior was considered when deciding whether or not to take formal action against him (Caine, Burlingame & Arney, 1998). Furthermore, discretion allowed the officer to tailor a response to the severity of the event (Caine, Burlingame & Arney, 1998).

There are a number of ways SROs can utilize community-oriented policing tactics in the school environment. For example, SROs can use education programs like DARE and Gang Resistance Education and Training (GREAT). In the work by Johnson (1999), GREAT programs were used to show the students the alternatives to gang membership. In some cases, the officers would also hold extra-curricular activities as part of these programs. For example, sports programs, counseling, and community programs were all utilized as part of these community-oriented programs (Johnson, 1999). Work by Lawrence (2007) yielded similar results; a number of different activities that SROs engage in fall within the community-oriented approach. Some examples are: informal communication with students, teaching classes on drug and alcohol use, gaining the trust of the students, and acting as a liaison between the department and the school (2007). The interactions of SROs are not limited to students; SROs also interact with parents and teachers (2007). Furthermore, Johnson (1999) indicated that the most SROs in the study

attempted to "develop proactive strategies in dealing with gang members by keeping the lines of communication open with gang leaders" (p. 183). This was in an attempt to reduce gang-related fights, which were found to have started in the community the weekend before and brought into school (Johnson, 1999).

The SRO program is an expensive undertaking. The program requires a dedicated sworn police officer and specific training (Garcia, 2003). The Office of Community-oriented Policing Services (COPS) is responsible for a majority of the funding for SRO programs (Garcia, 2003). Garcia (2003) reports that between 1999 and 2001, COPS provided $567 million to hire 4,900 SROs. The exact number of schools that were affected by this program is not mentioned in the article; the researcher does mention that 4,900 SROs is a small number of officers overall, given that there are 92,000 public schools in the United States. It is estimated that each SRO costs approximately $125,000 (p. 50). This is a huge expense per officer. As stated earlier, the SRO innovation is relatively new and as a result, there has not been a large amount of research on these programs. Johnson (1999) and Van Houten and colleagues (2007) have done analyses of traditional law enforcement-based and community-based SRO implementations, respectively.

The work of Johnson (1999) looked at the SRO program in a southern city. The goal of this research was to determine the effect that the presence of an SRO had on the rates of school violence and school disciplinary actions (1999). This research was completed via interviews with officers and school faculty. The researcher also looked at the weekly incident reports based on daily activities of the eighteen SROs. The weekly reports listed information about the number of a variety of arrests, searches of classes

conducted and individuals counseled (1999). These activities fall into both the traditional and community-oriented SRO approaches. The final source of data for this research was the student suspension rates for a variety of offenses of differing levels of severity. Typical included repeated tardiness or use of profane language, fighting or possession of tobacco products, and possession of drugs or aggravated battery, respectively (Johnson, 1999). The SRO program was found to be successful in decreasing the number of offenses in the schools, based upon the suspension rates (1999).

Johnson also asked the opinions of the school administration about the program and its success (Johnson, 1999). The first set of questions asked school administration if certain offenses decreased after the start of the SRO program. It was determined that use of weapons, fighting, drug use, and other minor criminal acts were reduced after the SRO program began. The second set of questions asked about the officer's actions, which were found to be professional in nature (1999).

The work of Van Houten and colleagues (2007) analyzed an effort of the SRO to encourage bicycle helmet use by students riding their bikes to school (Van Houten, Van Houten & Malenfant, 2007). In this jurisdiction, traditional policing methods, like writing citations for not wearing bicycle helmets, had not been effective in increasing helmet use. As a result, the school district, in conjunction with the SRO, developed a program to increase helmet use. This program consisted of an assembly, giving out bicycle helmets to students who did not have one and assisting students to property fit their helmets. The SRO was responsible for the implementation of the program. The program was found to be successful in increasing bicycle helmet use both before and after school at three school locations. This is an example of how the SRO can approach

safety issues utilizing a community-orientated approach (2007). This particular use of SRO shows that their programs can have an effect on issues that are part of the community as a whole, not just within the school setting.

Another source of measuring the efficacy of SRO programs has been student surveys. These surveys measured the effect that SRO programs have on students' perceived feelings of safety and comfort reporting crime (Finn & McDevitt, 2005; Finn et al., 2005; McDevitt & Panniello, 2005). Perceived level of safety in schools is addressed as a measure for the effectiveness of SRO programs because studies have shown that fear is a strong motivator of crime (McDevitt & Panniello, 2005). It follows that increasing feelings of safety can have the effect of decreasing delinquency. The result of this study was that increased feelings of safety in school led to an increase in likelihood of reporting crime to the SRO; as a result the author suggests that SRO programs should emphasize safety (McDevitt & Panniello, 2005).

Based on the studies of Johnson (1999) and Van Houten and colleagues (2007), the SRO program can be effective in reducing delinquency and can address safety concerns both in and out of school. As previously discussed, the SRO innovation is relativity new and there have not been many studies of SRO programs. The available studies do have limitations. Caine and colleagues (1998) suggest more research has to go into utilizing police in schools at the security level. Johnson (1999) suggests future research address the long-term effects of SRO programs on school violence prevention. Overall, there is a limited amount of research into the effects that SRO programs have on school factors ranging from delinquency rates to feelings of safety. The lack of available

research is made even more troublesome by the large amounts of variation from one SRO program to the next.

As stated previously, SRO programs can be implemented anywhere on the continuum between traditional policing and community-oriented policing tactics. The variation decreases the comparability of different implementations of SRO programs because programs can vary so easily. Available research shows that SRO programs are generally successful, regardless of the type of implementation. The work of Johnson (1999) found that traditional law enforcement programs can be effective in reducing delinquency while the work of Van Houten and colleagues (2007) determined that community-oriented programs can reach their target population, which in that instance was bicycle riding students.

Student perceptions of safety are an important issue to address because they are the primary community that the SRO serves. As a result, feelings of safety can be a significant determination of the overall effectiveness of an SRO program. There is significant variation from one implementation to the next because there is a variation in the duties that the SRO is expected to perform. As a result, looking at student perception of school safety based on type of implementation is an important determination to make to further understand the impact of the SROs' duties.

The current study will analyze the effect that SRO program implementation style has on student perception of safety. This will be accomplished by utilizing data collected from several high schools in the state of New Jersey during the Fall 2008 and 2009 semesters. Data were originally collected for a large-scale evaluation of a substance use prevention program but contain information on a variety of constructs, including student

perceptions of safety and safety measures implemented by the schools. All data were collected prior to the implementation of the prevention program and therefore will not be affected by the results of the evaluation. This study will utilize an Independent Sample T-Test to compare the perceptions of safety between the two SRO implementation styles. A Hierarchical Linear Model analysis will follow to address the effects that control variables have on students' perceptions of safety.

Chapter 3
Research Methodology

There are a wide variety of potential activities in which SROs can engage on a daily basis. This study posits that these activities can be categorized into either law enforcement or community-oriented practices. The variation in potential SRO activities raises the question of which activities are more effective. This study will first divide the sample schools into law enforcement and community-oriented approaches. Then, students' perceptions of safety in each school will be compared based on the SRO type of implementation.

Schools used in the present study were chosen based on their participation in a social norms substance abuse prevention program administered by the Center for Addiction Studies and Awareness at Rowan University and funded by the New Jersey Department of Education. As part of school level participation, individual students were surveyed at the beginning the project to measure a variety of constructs, including drug use, perceptions of peers' drug use, perceptions of school safety, and demographic characteristics. The larger project was an evaluation of the two-year implementation of a social norms campaign aimed at reducing substance use in schools. Only data from the First Wave of data collection are used here. These data were collected prior to the implementation of the prevention strategy and are therefore not subject to any intervention effects. Several questions were asked about safety and related issues, making it an ideal vehicle to help tease out the impact that SROs can have on student perceptions. The survey was administered to New Jersey high schools during the fall of the 2008 and 2009 school years. An examination of the schools participating in the original study found that eight schools also had assigned School Resource Officers, which make them

part of the sampling frame in the current study. These schools will be placed into one of two groups: law enforcement or community-oriented, based on interviews with SROs in the participating school districts. The determination of whether a school employed an SRO was made using a variety of methods, including: calling the local police departments, searching local police department websites for SROs, and searching local school district websites and directories.

Phase 1

The first part of the analysis classifies the SRO programs into law enforcement and community-orientated approaches. The SROs in the police districts serving the schools in the sample were administered a questionnaire. The questionnaire was mailed to the police departments addressed to the SRO along with an implied consent form and return envelope. SRO programs that returned their survey are considered participating in this study. This questionnaire inquires about the daily activities of the officers (see appendix A for the complete SRO survey). The first question asks the SRO to identify daily activities by selecting them from a list of activities provided. Examples of daily activities include: arrests, student discipline, counseling students, and teaching programs. There is also the option to write in any additional regular activities missed on the survey. These questions address the main construct for this part of the study, which is the type of implementation of SRO programs. Other questions in the questionnaire further develop the distinction between law enforcement and community-oriented practices (see Appendix A for survey).

The SRO survey also asks for an officer estimation of the percentage of student contact that is of disciplinary or law enforcement nature. The survey inquires about the

school districts' use of education programs, and if it is the responsibility of the SRO to implement these programs. This is to help determine the extent of the community-oriented practices at the school. Other questions determine the presence of law enforcement practices by asking about other security measures at the school and the responsibility of the SRO to operate security measures. This information can also be used to compare the student's perception of the presence of safety measures to an SRO's knowledge and perceptions of safety measures. The officers are also asked a question about the perception of the orientation of their programs. The choices are between primarily law enforcement and primarily community-policing tactics. Another question asks the SROs if they would want to change the style of implementation, and if they would, what they would change. The SROs are then asked about their perceptions regarding the children's feelings of safety. This is done with two questions asking about student feelings of safety and changes that they would make to increase safety. The following six questions ask about the assignments of the SROs. The next eight questions inquire about the reporting procedures and outcomes for delinquent activity in the schools in which the officers regularly operate. The survey concludes with an open-ended area to add any additional comments that were not covered during the survey. The complete list of questions for the SRO questionnaire is in Appendix A.

The results of this questionnaire were utilized to classify the SRO programs' implementation styles. The complete analysis of this questionnaire yielded a descriptive placement of the program into a law enforcement or a community-oriented implementation as well as provide school level data for analysis.

Phase 2

Once the SRO implementation styles were classified between law enforcement and community-orientations, student perceptions of safety and reporting behaviors were analyzed. Both student perceptions of safety and reporting behaviors were gathered from the results to questions from a survey administered by the Center for Addiction Studies and Awareness at Rowan University. The survey was administered to high schools during the Fall 2008 and Fall 2009 semesters. The sample of schools consisted of high schools that agreed to take part in the project (Connell, Negro & Pearce, 2011). The possible student sample consisted of the entire population of participating schools (Connell, Negro & Pearce, 2011). Students at participating high schools, however, were required to get parental consent before the survey was administered (Connell, Negro & Pearce, 2011). Students with parental consent were administered a computer based survey and safe guards were in place to prevent students without consent from participating (Connell, Negro & Pearce, 2011).

Students were asked a variety of questions, including about perceived safety at school. The survey helped to determine two constructs for the study. The first construct is the students' perceptions of safety. This will be measured both directly and indirectly. The direct question asks for the students to rate their safety. Indirect questions ask about the students' feelings about the school. This is important to the study because perceived feelings of school safety are the primary focus of the study. The second construct for this study is the reporting behaviors of the students. The reporting behavior of the students results from answers to hypothetical situations. These questions present a hypothetical, seeing drugs other than alcohol and tobacco for example, and ask the students to whom

they would report the incidence. There are six options: the principal or assistant principal, a teacher, a counselor, a police officer or security guard, a parent or family member, and no one. More detail on these questions can be found in Appendix B. This is of importance to this study because the reporting behaviors, in particular the reporting rates to the police officer or security guard category compared to the other categories available, are important to see if the extent to which students are reporting to SROs and other school and personal authorities. Other constructs include students' perceptions of the presence of weapons in school and security measures present in school.

These constructs will be the subject of the analysis to determine the effect that the type of implementation has on the outcome of SRO programs. As stated previously, perceptions of student safety are being utilized as the measurement for the efficacy of SRO programs because students are the primary community that SROs serve.

Chapter 4
Sample

Eight New Jersey High Schools are part of this sample. These high schools were selected because they participated in the evaluation of a substance use prevention program sponsored by the Center for Addiction and Awareness Studies at Rowan University and also had active SRO programs. The sample of schools was collected from all three geographic regions of the state, including northern, central, and southern regions.

The districts' characteristics have been researched further. There are two sources of data from which information related to the schools and districts was collected: the 2000 United States Census; and, the New Jersey Department of Education School Report Card program. The data for median household income and total population of the towns that receive services from the sampled schools came from the 2000 Census. School districts will be divided up by size using this data in order to better understand outcomes; total populations over 50,000 are considered large jurisdictions, 23,000 to 49,999 are considered intermediate jurisdictions, and fewer than 22,999 are considered small jurisdictions.

The New Jersey Department of Education School Report Card dataset provided information on school level characteristics for the 2008 to 2009 school year, which is the same year that data were collected from the schools. Data captured in the School Report Cards include: the total school population; the number of students on free lunch; the number of students on reduced lunch; the average class size; the attendance rate; the drop-out rate; the suspension rate. Descriptions of the eight schools available for this study are discussed below; see Tables 1 and 2 for more complete descriptions of the schools.

Large School 1 has a population of 149,222. It is the most urban school in the sample. The high school in the sample is one of 14 other high schools and magnet schools that serve this population. The school in particular serves 1731 students. 68.9 percent of these students are on free or reduced price lunch. The median income for this area is $32,778[1]. A total of 184 students in the school answered questions on a survey about school experiences, including perceptions of student safety and safety measures in their school.

Large School 2 has a population of 69,965. The high school in the sample is one of 3 other high schools that serve this population, one of which is an alternative school. This school in particular has 1512 students. 15.4 percent of these students are on free or reduced price lunch. The median income for this area is $69,421[2]. A total of 330 students in the school answered questions on a survey about school experiences, including perceptions of student safety and safety measures in their school.

Intermediate School 1 has a population of 24,575. This high school is the only high school for this area. This school has a student population of 814. 4.3 percent of these students receive either reduced price or free lunch. The median income for this area is $107,204[3]. A total of 109 students in the school answered questions on a survey about school experiences, including perceptions of student safety and safety measures in their school.

Small School 1 has a population of 19,383. This high school is the only high school for the district. The school has a population of 650.5 students. 15 percent of the

[1] The median income for this school district is $9,216 below the NJ median income, this school has the lowest median income in the school sample.
[2] The median income for this school district is $27,427 above the NJ median income.
[3] The median income for this school district is $65,210 above the NJ median income.

students receive free or reduced price lunch. The median income for the area is $53,375[4]. A total of 500 students in the school answered questions on a survey about school experiences, including perceptions of student safety and safety measures in their school.

Small School 2 is a regional school. This school takes students from four towns. The total population of the towns sending students to this school is 22,702. This school has a student population of 1,113.5. 16.9 percent of the student population receives free or reduced price lunch. The median incomes from the four towns that send students to this school are $47,282, $94,094, $36,875, and $86,911[5] with total populations of 11,844, 6,170, 1,098, and 3,590, respectively. A total of 184 students in the school answered questions on a survey about school experiences, including perceptions of student safety and safety measures in their school.

Small School 3 has a town population of 17,481. This school is the only high school for this area. This school has a student population of 1,693.5. 1.5 percent of the student population at this school receives free or reduced price lunch. The median income for this area is $118,850[6]. A total of 1,266 students in the school answered questions on a survey about school experiences, including perceptions of student safety and safety measures in their school.

Small School 4 has a population of 15,270. This is the only high school for this district. This high school has a student population of 1,045. 18.9 percent of students

[4] The median income for this school district is $11,381 above the NJ median income.
[5] A single median income for this school district is not available. Three out of four of the towns have median incomes above the state average ($5,288, $52,100, and $44,917 above, respectively), while one town has a median income lower than the state median income ($5,119 lower).
[6] The median income for this school district is $76,865 above the NJ median income.

receive free or reduced price lunch. The median income for this area is $48,572[7]. A total of 362 students in the school answered questions on a survey about school experiences, including perceptions of student safety and safety measures in their school.

Small School 5 has a town population of 11,659 residents. This is the only high school for this school district. This high school has a student population of 775. 1.4 percent of the student population receives free or reduced price lunch. The median income for this town is $86,872[8]. A total of 331 students in the school answered questions on a survey about school experiences, including perceptions of student safety and safety measures in their school.

Table 1: Demographics of Total School Sample
N=3266

Age [a]	n	Percent
13	29	0.9
14	665	20.5
15	892	27.5
16	778	24
18	193	5.9
19	680	20.9
20	11	0.3
Gender [b]	**n**	**Percent**
Male	1733	53.4
Female	1511	46.6
Race [c]	**n**	**Percent**
White	2299	71.3
Non-White	927	28.7

[a] 18 student surveys were missing a response
[b] 22 student surveys were missing a response
[c] 40 student surveys were missing a response

[7] The median income for this school district is $6,579 above the NJ median income.
[8] The median income for this school district is $44,878 above the NJ median income.

Table 2: School Sample Characteristics

	Large 1	Large 2	Intermediate 1	Small 1
School Sample (N)	184	330	109	500
Town Size	149,222	69,965	24,575	19,383
Median Income (State $41,994)	$32,778	$69,421	$107,204	$53,375
School Size	1731	1512	814	650.5
Percent Response	10.60%	20.80%	13.40%	76.90%
Percent Free & Reduced Lunch	68.90%	15.40%	4.30%	15.00%
Attendance Percentage (State 94.6%)	84.90%	93.40%	96.30%	92.60%
Drop Out Percentage (State 1.7%)	3.50%	0.10%	0.50%	0.90%
Suspension Percentage (State 14%)	35%	4%	2%	5%
Average Class Size (State 18.4)	18.9	22.4	18.4	18.4
	Small 2	Small 3	Small 4	Small 5
School Sample (N)	184	1266	362	331
Town Size	22,704	17,481	15,270	11,659
Median Income (State $41,994)	*	$118,850	$48,573	$86,872
School Size	1113.5	1693.5	1045	775
Percent Response	16.50%	74.80%	34.60%	42.70%
Percent Free & Reduced Lunch	16.90%	1.50%	18.90%	1.40%
Attendance Percentage (State 94.6%)	97.50%	96.10%	90.20%	95.70%
Drop Out Percentage (State 1.7%)	0.20%	0.10%	0.00%	0.00%
Suspension Percentage (State 14%)	6%	2%	1%	4%
Average Class Size (State 18.4)	18.4	14.2	18.5	16.4

*= Regional School District with Median Incomes: $47,282, $94,094, $36,875, and $86,911

Chapter 5
Variables

Independent Variables

Law Enforcement Activities

The law enforcement activities variable is one of the independent variables for the description of the SRO program. The number of activities that are classified as law enforcement in nature will help make the determination of whether or not the SRO program is law enforcement oriented. The data for this variable will come from the SRO Questionnaire. This questionnaire asks SROs to describe their program in a number of different questions. The questions that the SROs will be asked are listed in Appendix A. Specific questions ask the SRO about law enforcement related activities. The responses will then be categorized into this variable. Examples of law enforcement activities from previous studies include completing investigations (Finn et al., 2005) and monitoring public areas of schools, like the lunchroom (Johnson, 1999).

Community-Oriented Activities

The community-oriented variable is the second independent variable for the description of the SRO program. Like the variable law enforcement activities, the number of activities that fall into the community-oriented category as defined by interviews with SROs will be measured with this variable. This variable will help determine the type of implementation that the SRO program is utilizing. There are specific questions in the SRO questionnaire that are indicators of community-oriented practices. The results to these questions will be counted toward this variable. Examples

of community-oriented activities mentioned in other studies include teaching programs and improving relationships between students and police (Johnson, 1999).

SRO Implementation

This variable will be the independent variable for Phase II of the study. During this part of the study, student perceptions of safety will be analyzed based on the type of SRO implementation that is utilized. This variable will be determined in a qualitative manner based on results from the SRO survey.

Dependent Variables

SRO Implementation

The variable SRO Implementation is the dependent variable for the Phase I of this study. This part of the study determines the type of implementation utilized by each SRO program. This variable will be determined as a result of the variables: *Law Enforcement Activities* and *Community-Oriented Activities*. These two variables will be weighed and a descriptive determination of the type of implementation that the SRO program utilizes will be determined. A more detailed description of this process will be discussed in the analysis.

Student Perceptions of Safety

This variable is the main dependent variable for Phase II of the study. Perceptions of safety will be utilized as a measure of the effectiveness of different program implementations. Data for this variable will come from the student surveys. This survey has questions that both directly and indirectly measure perceptions of safety. The question "On a scale of 1 to 10, with 10 being the most safe, how safe do you feel at

school?" directly measures student perception of safety. Questions like "This school is a pretty good school to go to" indirectly measure perceptions of safety. This variable will be used as a used to test the first hypothesis, that community-oriented SRO programs will have a higher level of perceived safety than law enforcement-oriented SRO programs.

Student Reporting Behaviors

The Student Reporting variable is a dependent variable for the second part of the study. This variable will allow us to measure the effect that different SRO implementations have on student reporting behaviors. This is important to measure because SROs are a police figure in school and should the extent to which students report illegal activities need to be addressed. This is especially important when comparing to other school and personal authorities, which are measured in these questions. Comparing the reporting behaviors of students in this study is important because SROs need to know what problems they need to address. If students are not reporting problem behavior to SROs or any school authorities, then the effectiveness of SRO programs could be diminished. Furthermore, comparing SROs to other school and personal authorities allows for a comparison to the comfort that the students have with the SRO.

Control Variables

School Population

These data come from the New Jersey Department of Education School Report Card Program for the 2008-2009 school year. The school population variable will measure the number of students that attend the sample school. This is being controlled in order to examine if school population has an effect on student perceptions of safety. It is

important to differentiate between total population and the school population to address school district variation. For example, some school districts have multiple schools that serve the same age range while only one school is in the sample; this makes school population a more accurate measure as opposed to the total population. Details on this variable can be found in Table 2. This variable will be used as a school level variable for multilevel analysis.

Percentage of Students on Free or Reduced Price Lunch

These data come from the New Jersey Department of Education School Report Card Program for the 2008-2009 school year. This measure is being used to determine if the percentage of students that qualify for reduced or free lunch has an effect on student perception of safety. This variable is going to be used as another economic indicator to test social disorganization theory. This variable is similar to the variable "percentage of families on relief," which has been used in previous social disorganization research (Shaw &McKay, 1974, p. 147). This variable is important to include because the median income data comes from the 2000 Census, while these data were collected the same year as the study. Percentage of students receiving free or reduced price lunch will be used as a school level variable for multilevel analysis.

School Attendance Percentage

These data come from the New Jersey Department of Education School Report Card Program for the 2008-2009 school year. School attendance rates are being controlled as a measure of social disorganization. According to Shaw and McKay (1974), school is an institution that needs to be preserved to prevent social disorganization (p. 324). Truancy is also a characteristic used to determine social

disorganization (Shaw & McKay, 1974, p. 90). Table 2 has more detailed information about this variable. School attendance rates will be used as a school level measure for multilevel analysis.

School Suspension Percentage

These data comes from the New Jersey Department of Education School Report Card Program for the 2008-2009 school year. School suspension rates are utilized as a measure of the effect of SROs in other studies (Johnson, 1999). This study, however, will control for suspension percentage as a measure of social disorganization. Suspension percentages for all of the schools available for the sample are listed in Table 2. Suspension rates will be used as school level variable for multilevel analysis.

Student Age[9]

Student age will be controlled for during the second phase of the study. These data will come from the demographic data collected during the student survey. Age will be controlled for so that the effect that age has on Phase II variables, like perceptions of safety, can be determined during the analysis. The breakdown of student age is available in Table 1. Student age will be used as a student level variable for multilevel analysis.

Student Gender

Gender of the participants will be controlled for during the second phase of the study. These data will come from the demographic data collected during the student survey. Gender will be controlled for so that the effect that this variable has on Phase II variables can be determined during the analysis. The data for this variable was coded

[9] Data for student grade were also available, however, will not be used because of multicollinearity between student age and student grade.

male (0) and female (1). 53.4 percent of the total sample is male, while 46.6 percent is female. This variable will be used as a student level variable for multilevel analysis.

Student Race

Student race will be controlled for during the second phase of the study. These data will come from the demographic data collected during the student survey. Race will be controlled for so that the effect that race has on Phase II variables can be addressed during the analysis. The data collected for this variable from the student survey was recoded to white (1) and non-white (0). 71.3 percent of total available student sample responded "white" while 28.7 percent responded with a race coded into "non-white". This will be used as a student level variable for multilevel analysis.

Hypotheses

H1: SRO programs that utilize a community-oriented implementation will report higher perceptions of safety.

H2: SRO programs that utilize a community-oriented implementation will have a higher level of reporting to the SRO.

Chapter 7
Analysis

Phase I

The analysis for Phase I of this study will include a descriptive assessment of the SRO programs implemented in the schools in this sample. This will break SRO programs into law enforcement or community-oriented programs. The determination of SRO program implementation will be made based on the results from the SRO survey (see Appendix A). The primary measure of this will be the first question in the survey: "What, if any, activities do you perform regularly? Check all that apply." The number of activities that are selected for both law enforcement and community-oriented questions will be counted and this number will help determine that orientation style. For example, one survey reported that their regular activities include: arrests, investigations, deterrence, patrolling, counseling students, mentoring students, and teaching programs other than DARE or GREAT. Arrests, investigations, deterrence, and patrolling are all counted toward law enforcement orientation. Counseling students, mentoring students, and teaching programs other than DARE or GREAT are all community-oriented activities. The results of this particular survey indicate four law enforcement activities and three community-oriented activities. The following question asks the officer to estimate the percentage of their activity that is law enforcement in nature. This will be used to further explain the first question. This is important because officers might select an activity as something that they perform regularly but may not spend much time performing the activity. One survey reported that their program spends approximately 60 percent of their time acting in a law enforcement or disciplinary function. This clearly

indicates that a large percentage of their time is acting in law enforcement, and as such, will be counted toward law enforcement orientation.

The remainder of the questions, which asks about the use of education programs, as well as the school's use of security measures as well as the SRO's part in operating them will be used to fine tune the implementation. For example, one survey indicated their school used DARE and it was the SRO's responsibility to teach DARE, which is counted toward community-oriented orientation. This same survey indicated that it was the duty of the SRO to help implement security measures, which will be counted toward law enforcement orientation. The orientation with the greater number of responses will be the implementation style used to classify the SRO program. Based on the examples provided during the description of the analysis for phase I, this school is classified as law enforcement. The SRO survey can be found in Appendix A.

Phase II

Hypothesis 1:

SRO programs that utilize a community-oriented implementation will report higher perceptions of safety.

Hypothesis 1 addresses the focus of this study, which is the effect that SRO program implementation has on student perception of safety. As stated previously, this study hypothesizes that students attending schools with SRO programs that are more community-oriented in nature will report feeling safer than students attending schools with law enforcement oriented SRO programs. Four questions from the student survey will be analyzed to answer test this hypothesis: "On a scale of 1 to 10, with 10 being the most safe, how safe do you feel at school", "I feel like I belong at this school", "I wish I

did not attend this school", "This school is a pretty good school to go to" henceforth referred to as indicator "how safe do you feel at school", "I feel like I belong", "I wish I did not attend", and "this is a pretty good school" respectively. Indicator "how safe do you feel at school" is an interval level variable with possible responses ranging from 1 to 10. Indicators "I feel like I belong", "I wish I did not attend", and "this is a pretty good school" are dichotomous, nominal level variables with "0" representing a negative response to the question and a "1" representing an agreement to the statement. The closer the response for the first question is to ten, the safer the student feels at the school. As stated previously, this is the most direct measure of the construct of student perception of safety.

The following questions are being treated as indirect measures of safety. Indicators "I feel like I belong", and "this is a pretty good school" will be used as an indirect measure of school safety. Positive responses to these questions will be considered evidence that a school is perceived to be safe by the students. Indicator "I wish I did not attend" will be used as a measure of perception of school safety as well but a negative response will indicate an increased level of school safety. Indirect indicators will be analyzed because perceptions of safety could have an effect on these statements. The correlations between direct and indirect measures indicate that these indirect indicators are affected by perception of safety. Table 3 provides the correlations between direct and indirect indicators.

The hypothesis will first be examined by analyzing relationships between perceptions of safety and SRO implementation style. There are two types of variables being used as indicators for perception of safety. As such, these variables have to be

handled in different ways according to their level of measurement, both of which will be discussed separately. Indicator "how safe do you feel at school" will be addressed first, followed by indicators "I feel like I belong", "I wish I did not attend", and "this is a pretty good school".

Table 3: Correlation Matrix for Indicators

		1	2	3	4
1	How safe do you feel at school?	1			
2	I feel like I belong	.279**	1		
3	I wish I did not attend	-.225**	-.502**	1	
4	This school is a pretty good school	.307**	.425**	-.427**	1

** $p < 0.01$

Indicator "how safe do you feel at school" will be analyzed using independent samples T-test. An Independent Sample T-test will be used to analyze this relationship because the independent variable is a dichotomous categorical variable and the dependent variable continuous (Bachman & Paternoster, 2009, p. 404). After this analysis, control variables will be analyzed. Indicator "how safe do you feel at school" is a candidate for multiple regression analysis, as the dependent variable is measured at the interval level (Bachman & Paternoster, 2009, p. 569).

Indicators "I feel like I belong", "I wish I did not attend", and "this is a pretty good school" will be analyzed using chi-square tests. This is the appropriate statistical test to determine the independence between two dichotomous variables (Bachman & Paternoster, 2009, p. 346-347). To determine the strength of the association between

SRO implementation styles and perceptions of safety, a phi coefficient will be calculated. A phi coefficient can be used to calculate the relationship between two nominal level dichotomous variables (Bachman & Paternoster, 2009, p. 377). Indicators "I feel like I belong", "I wish I did not attend", and "this is a pretty good school" are candidates for logistic regression analysis because they are dichotomous dependent variables (Bachman & Paternoster, 2009, p. 615-616).

The independent and control variables that will be utilized while testing this hypothesis are generated from data collected at the student level via the student survey, as well as school level data collected from the SRO survey and aggregate data from the 2000 Census. Ordinarily, multivariate regression could be used to analyze the relationship between independent, control and dependent variables. The nature differing levels of variables leads to a potential violation of the assumptions of multivariate regression, namely the assumption that all variables are independent (Bachman & Paternoster, 2009, p. 569; Luke, 2004, p. 7). This potential violation occurs because data for school level variables is aggregated for the school sample. Even if data for school level variables were collected at the individual level, these variables could potentially violate the assumption of independence. This could occur because characteristics that are similar to a school but vary between schools can affect the outcomes for these variables. There are statistical models that take this lack of independence into account. One of these models is hierarchical linear modeling (HLM).

HLM addresses the violations of independence, both in observations and error terms (Bachman & Paternoster, 2009, p. 569), of multivariate regression by adjusting the model to multiple levels. Multivariate regression assumes that the error term is

independent of the independent variables (Bachman & Paternoster, 2009, p. 569). HLM compensates for these clustered error terms by modeling non-independent variables at the second level. At the first level are data that are not compromised by the assumptions of independence. The basic formula for the first level is (Luke, 2004, p. 10; Snijders & Bosker, 1999, p. 39-40):

$$Y_{ij} = \beta_{0j} + \beta_{1j}X_{ij} + r_{ij}$$

where:

Y_{ij} is the dependent variable

β_{0j} is the intercept

X_{ij} is the explanatory variable

j is the index for the groups

i is the index for the individual within groups

r_{ij} is the residual for the first level

Subsequent levels of analysis are created with variables that are thought to violate the assumption of independence. In the current study, the second level of analysis contains variables at the school level. The variables to be analyzed at the school level are identified in the variables chapter. The basic formula for the second level is (Luke, 2004, p. 10):

$$\beta_{0j} = \gamma_{00} + \gamma_{01}W_j + u_{0j}$$

where:

β_{0j} is the level 1 intercept for level 2 unit j

γ_{00} is the mean value of the dependent variable, controlling for the level 2 variable

γ_{01} is the effect of the level 2 variable

W_j is the level 2 variable

u_{0j} is the level 2 error for unit j

Indicator "how safe do you feel at school", which asks the students to indicate their perception of safety on a scale of 1 to 10, being at the interval level, meets the requirements for HLM, as they are similar to multivariate regression. Regression requires that the dependent variable be at the interval level or higher (Bachman & Paternoster, 2009, p. 569). Indicators "I feel like I belong", "I wish I did not attend", and "this is a pretty good school", however, are dichotomous variables. HLM can analyze dichotomous dependent variables by applying a "logit link function" during analysis (Luke, 2004, p. 53-54; Raudenbush, Bryk, Cheong, Congdon & du Toit, 2011, p. 107).

There are a variety of ways to build an HLM model; however, it is suggested that HLM models be built from the bottom up (Luke, 2004, p. 23). Starting from the bottom would require beginning with a null model, or a multilevel model without any of the independent variables. This provides the effect that the grouping variable has on the dependent variable when no level 1 or level 2 variables are being controlled (Luke, 2004, p. 21). The Interclass Correlation Coefficient (ICC) can be calculated with this information, which can be used as a determination of the necessity to use HLM (Luke, 2004, p. 18). The formula for the ICC for a standard HLM is (Luke, 2004, p. 19):

$$\rho = \frac{\sigma^2_{u_0}}{(\sigma^2_{u_0} + \sigma^2_r)}$$

where:

ρ is the ICC

$\sigma^2_{u_0}$ is the level 2 variance

σ^2_r is the level 1 variance

A HLM for a dichotomous outcome variable uses a different formula for the ICC. The formula used to calculate ICCs for dichotomous variables is (Snijders & Bosker, 1999, p. 224):

$$\rho = \frac{\tau_0^2}{\tau_0^2 + \pi^2 / 3}$$

where:

ρ is the ICC

τ_0^2 is the intercept variance

A moderately high ICC can be used as evidence of the necessity to use HLM as it shows there is significant variation explained by the grouping variable (Luke, 2004, p. 18-21). After the null model, it is suggested that a first level variables be added until satisfaction is reached, followed by second level variables (Luke, 2004, p. 23). Also of importance is the type of analysis.

There are several options of analysis; they are broken into intercept as outcome and slope as outcome models (Luke, 2004, p. 23). The decision of which model to pick is both a theoretical and an empirical one (Luke, 2004, p. 23). Each model allows for different conclusions to be drawn from the results. The intercept as outcome model provides evidence to the amount that each variable in the model has on the dependent variable (Luke, 2004, p. 28). The slope as outcome model permits the measurement of the effect that second level variables have on first level variables (Luke, 2004, p. 29). As is suggested by Luke (2004) this research will develop the HLM model from the bottom

up, starting with the null model (p. 23). This research will then develop an intercept as outcome model starting at the first level followed by the second. This research will not develop a slope as outcome model because the first level variables are mostly demographic variables. There is no empirical or theoretical reason to believe that school level variables will have an impact on have on demographic variables.

Phase II

Hypothesis 2:

SRO programs that utilize a community-oriented implementation will have a higher level of reporting to the SRO.

Hypothesis 2 measures the effect that SRO implementation has on reporting to the SRO. The student survey will provide the data for the dependent variable in this analysis, which is reporting activities to a police officer or security guard. Two questions are posed in the survey that will be used to analyze this hypothesis: indicator 2A, "if you saw a gun at school, would you tell" and indicator 2B "if you saw a knife or another object that could hurt someone at school, would you tell." More detail on these questions can be found in Appendix B. The responses for indicators 2A and 2B are coded into dummy variables for each group available for reporting. The independent variable for testing this hypothesis will be SRO implementation. Hypothesis 2 will be measured using chi-squared tests with a phi coefficient, as both indicators are both dichotomous variables similar to previously discussed analyses.

Chapter 8
Results

Phase 1

Three SROs returned the SRO survey regarding implementation. These surveys were from schools: Large 2, Small 4 and Small 5. The survey responses returned very similar answers. All three surveys reported similar daily activities in both law enforcement and community-oriented implementations. All responding SROs indicated that arrests, patrolling, investigations, and deterrence were part of their daily activities within law enforcement activities. Responding to calls for service was indicated in two out of three of the surveys. Student discipline was not indicated in any of the surveys. Similarly, all responding SROs indicated that mentoring students was part of their regular activities, while two of three responding officers indicated counseling students and teaching programs other than DARE or GREAT. Finally, only one program, Large 2, identified providing alternative sanctions as regular activity. This question was going to be the determination between community-oriented and law enforcement oriented practices because it was thought that SRO activities would vary to a great enough degree that it could differentiate between programs. The second question, which asks the SRO to estimate the amount of their time that is focused on law enforcement, is now going to be used to determine the orientation style for the second phase of the study to address the lack of variability in SRO activities. This percentage is also important because the original determination did not account for time spent performing regular activities, but only identified these activities. It is conceivable that SROs could engage in many activities on the list but only spend a small amount of time on each. As a result, the estimated amount of time that the SRO engages in law enforcement oriented activities is

a more accurate determination as well as putting the activities included on the survey into context. This reported percentage ranged from 1 percent to 60 percent and coincided, at a qualitative level, with other measures that were planned to make the determination between program orientations.

The question regarding security measures implemented in each school lacked variability, as most of the schools utilized similar security measures. All responding SROs stated that hallway supervision, visitor sign-in requirement, student ID cards, student codes of conduct, and locked school doors were utilized as security measures. Two programs, Large 2 and Small 4, stated they used security cameras and one program, Small 5, utilized locker checks. The next question inquires about the SRO's role in utilizing these security measures. One survey, for Small 2, stated it was the SRO's duty to utilize these measures, and one survey, for Large 2, indicated it was not within the SRO's duties. While not included in the original survey, the officer for Small 5 opted to select that it was a duty of the SRO to utilize school security measures but also wrote in next to this selection "partially" indicating to the researcher that only a part of the SRO's duty in this school is to operate school security measures.

When asked to identify their program as law enforcement or community-oriented, all SROs indicated that their program is community-oriented in nature; this may be as a result of the common perception that SRO programs are considered community policing. As stated previously, due to the overall lack of variability and small number of SRO survey responses, the estimated percentage of time spent on law enforcement activities will be used as the main determination of implementation style. This determination has yielded that Large 2 and Small 5 are community-oriented while Small 4 is law

enforcement oriented. Small 4 is also the program that indicated it was the responsibility of the SRO to utilize school safety measures while the other two programs either did not operate these measures or did not operate them all the time. Furthermore, Small 4 is also the program that indicated their arrests were for violent offenses and pursued formal action. Programs Small 5 and Large 2 indicated that their arrests were for either non-violent offenses or both violent and non-violent offenses and pursued informal or both formal and informal actions respectively. For the aforementioned reasons, programs Large 2 and Small 5 will be considered community-oriented programs while Small 4 will be considered a law enforcement oriented SRO program.

Phase 2

Hypothesis 1

The first analysis for hypothesis 1 is an Independent Samples T-Test with SRO implementation as the independent variable and indicator "how safe do you feel at school", the statement: "On a scale of 1 to 10, with 10 being the most safe, how safe do you feel at school," as the dependent variable. The results of the Independent Sample T-Test show that students in community-oriented programs have a significantly higher perception of safety ($p < 0.001$). The mean for law enforcement oriented programs is 7.24 while the mean for community-oriented programs is 8.07. (see table 4 for details). The other measures of perceptions of safety were tested using chi-square tests with phi coefficients; results for these analyses can be found in table 5.

Table 4: Independent Samples T-Test for Indicator "How safe do you feel at school"

SRO Program Orientation	Mean	Std. Deviation
Law Enforcement Oriented	7.42	1.971
Community-oriented	8.07	1.936
t-test for Equality of Means		
	t	df
	-5.074***	1017

*** $p < 0.001$

The indicator "I feel like I belong", the statement: "I feel like I belong at this school," was found to be statistically independent from the SRO implementation. Furthermore, community-oriented programs had a significantly higher level of safety than law enforcement oriented programs ($p < 0.05$; Phi = 0.066). Similar results were

found for the remaining two indicators of perceptions of school safety. This provides evidence in support of the hypothesis, that community-oriented SRO programs will have students that report feeling safer than students at law enforcement oriented SRO programs.

Table 5: Chi-Square and Phi Coefficients for Indicators

Indicator	Pearson Chi-Square	df	Phi Coefficient
"I feel like I belong"	4.37*	1	0.066*
"I wish I did not attend"	10.7**	1	-0.103**
"This is a pretty good school"	29.876**	1	0.172**

* p < .05 ** p < .01

The next analysis examines the effects that other variables have on this relationship. As stated previously, the analyses to do this would ordinarily be a multiple regression and a logistic regression, but there are potential violations of the assumption of independence between observations (Bachman & Paternoster, 2009, p. 569). HLM can compensate for this by increasing the error terms.

Table 6: Null Models and ICCs for Indicators

Indicator	Beta	t value	ICC
"How safe do you feel at school"	7.86**	21.6	0.097
"I feel like I belong"	1.45**	10.48	0.011
"I wish I did not attend"	-1.22**	-7.45	0.019
"This is a pretty good school"	1.75*	5.34	0.083

* p < .05 ** p < .01

The null models for HLM analysis of each of the four indicators of school safety are presented in table 6. Indicator "how safe do you feel at school" has a null model intercept of 7.86. The other three indicators' null models are: 1.46, -1.24, 1.82, for "I feel like I belong", "I wish I did not attend", and "this is a pretty good school" respectively. This indicates the intercept for these variables in the absence of any additional factors (Luke, 2004, p. 21). The null models also contain the statistics necessary to calculate the ICC. As stated previously, the ICC provides a statistical measure for the necessity to perform HLM (Luke, 2004, p. 21). This statistic determines the amount variation in the dependent variable that is explained by the grouping variable (Luke, 2004, p. 21). As a result, having a relatively large ICC is an indication that HLM should be used (Luke, 2004, p. 21). The ICCs for each of the HLM null models are presented in Table 6. These low ICCs indicate that there is little variation in perceptions of safety that is explained by school. More specifically, the ICCs indicate that between approximately one and ten percent of the variation in the responses is explained by the grouping variable.

HLM models have been developed from the bottom up, starting with the first level variables and then continuing to add second level variables. The results for all of these models are listed in table 7. These models show statistically significant effects of demographic variables on student perceptions of safety. The HLM indicator "how safe do you feel at school" provides evidence that gender, age, grades in school, and the presence of weapons (both knowledge of and witnessing weapons in school) have a statistically significant impact on the perceptions of safety. Indicator "I feel like I belong" had similar results. Age, race, grades in school, as well as the perceptions of weapons as discussed above, were statistically significant in the model.

Table 7: Full Models of Three and Seven School HLMs Indicators

	Indicator "how safe do you feel at school"			
	Three School		Seven School	
Variables	Beta	t value	Beta	t value
Intercept Terms				
Reference	7.86**	21.6	7.91**	127.51
Level 1				
Age	0.09*	2.56	0.11**	6.17
Gender	0.32**	2.69	0.33**	4.97
White	0.25	1.67	0.11	1.51
Grades in School	-0.21**	-4.02	-0.19**	-7.05
Knowledge of Weapon	.38*	2.05	0.48**	4.99
Witnessing a Weapon	.70**	3.29	0.55**	4.83
Level 2				
School Size	-	-	0.000079	0.47
Percent of Student Pop. Free or Reduced Price Lunch	-	-	-9.28	-2.89
Attendance Percent	-	-	-14.75	-1.35
Suspension Percent	-	-	13.13	4.288
	Indicator "I feel like I belong"			
	Three School		Seven School	
Variables	Beta	t value	Beta	t value
Intercept Terms				
Reference	1.54**	10.41	1.57**	19.06
Level 1				
Age	-0.12*	-2.46	-0.09**	-3.43
Gender	0.34	1.95	.56**	5.56
White	0.49*	2.47	0.36**	3.49
Grades in School	-0.17*	-2.44	-0.21**	-5.41
Knowledge of Weapon	0.48*	1.97	.52**	3.88
Witnessing a Weapon	0.67*	2.48	.39*	2.52
Level 2				
School Size	-	-	0.000043	0.21
Percent of Student Pop. Free or Reduced Price Lunch	-	-	3.18	0.75
Attendance Percent	-	-	14.24	0.98
Suspension Percent	-	-	-0.06	-0.02

* $p < .05$ ** $p < .01$

(Continued)

	Indicator "I wish I did not attend"			
	Three School		Seven School	
Variables	Beta	t value	Beta	t value
Intercept Terms				
Reference	-1.28**	-7.49	-1.39**	-22.12
Level 1				
Age	.12**	2.63	0.14**	5.52
Gender	-0.34*	-2.07	-0.62**	-6.39
White	-0.14	-0.74	-0.22*	-2.13
Grades in School	0.16*	2.38	0.22**	6.02
Knowledge of Weapon	-0.51*	-2.23	-0.51**	-3.97
Witnessing a Weapon	-0.49	-1.9	-0.48**	-3.23
Level 2				
School Size	-	-	0.000021	0.15
Percent of Student Pop. Free or Reduced Price Lunch	-	-	-1.55	-0.47
Attendance Percent	-	-	-11.14	-0.98
Suspension Percent	-	-	-2.38	-0.77
	Indicator "this is a pretty good school"			
	Three School		Seven School	
Variables	Beta	t value	Beta	t value
Intercept Terms				
Reference	1.85*	5.49	2.15**	22.09
Level 1				
Age	-0.1	-1.93	-0.09**	-2.98
Gender	-0.17	-0.89	0.24*	1.99
White	-0.03	-0.11	-0.02	-0.15
Grades in School	-0.23**	-3.01	-0.31**	-7.08
Knowledge of Weapon	0.34	1.29	.41*	2.44
Witnessing a Weapon	0.85**	2.89	.74**	4.12
Level 2				
School Size	-	-	0.00052	2.24
Percent of Student Pop. Free or Reduced Price Lunch	-	-	-2.21	-4.74
Attendance Percent	-	-	9.52	0.59
Suspension Percent	-	-	9.58	2.08

* $p < .05$ ** $p < .01$

The other indicators of perceptions of school safety had similar results as well. The HLM analysis for indicator "I wish I did not attend" found age, gender, grades in school, and knowledge of the presence of weapons in school have a statistically significant relationship to student perceptions of safety. The final HLM for indicator "this is a pretty good school" found that age, grades in school, and witnessing weapons in school have a statistically significant relationship to perceptions of safety. In HLMs where gender is found to be statistically significant, male students reported feeling safer. Furthermore, in HLMs where white is found to be statistically significant, white students reporting feeling safer.

The complete model cannot be calculated because there is an insufficient number of schools; only three SRO programs responded to surveys. Degrees of freedom is calculated J – p – 1 where J is the number of level 2 units, which is three in this case, and p is the number of level 2 predictors (Luke, 2004, p. 29). This means that a full model cannot be calculated with any level 2 predictor variables with meaningful results. As a result, a HLM cannot be developed with only SRO implementation as a level 2 indicator. This makes it impossible, from the data gathered, to test the effect that SRO program implementation has on perceptions of safety when adjusting error terms to compensate for lack of independence between observations.

In order to determine the effect that other school level variables have on student perception of safety, it is necessary to develop new HLMs including more schools. Although three SRO programs returned their surveys, data for eight schools were available from the original source. School small 2, the regional school district, has been excluded from this part of the analysis because of the methodological issues with

calculating a median income for this school based on aggregate data for the towns sending students to the school system. This leaves seven schools for this second HLM analysis. Using the formula for degrees of freedom from before, seven schools allows for the analysis of four school level variables. This still falls short of the number of schools necessary for a complete model to be created with all of the desired school level variables. As a result, the full models will be limited to school size, percent of the student population receiving free or reduced price lunch, percent attendance, and percent suspension. SRO program implementation will not be included in the seven-school model, as these data are not available due to limited responses to the SRO survey. The purpose of this model is to determine the effect that school level variables available for the full set of schools has on perceptions of safety. Also, the three-school and seven-school models will be compared to see how the HLMs for the three-school group and seven-school group relate. Just as the previous models, the HLMs for this analysis will start from the bottom and move up.

The null models of the four indicator variables for the seven schools in the sample are found in table 8. These null HLMs are very similar to the null models including data from just the three schools that returned the SRO survey. The intercepts for the null models for the questions indicators "how safe do you feel at school", "I feel like I belong", "I wish I did not attend", and "this is a pretty good school" are 7.93, 1.46, -1.29, and 2.03 respectively. The ICCs for these models are 0.045, 0.009, 0.013, and 0.089, also respectively. Similarly to the ICCs for the models containing data for three schools only, the ICCs for these models are also very low. The question "This school is a pretty good school to go to" has the highest ICC out of these models, which indicate that the

schools explain 8.9% of the variability in the dependent variable while other models' grouping variable explains even less.

Table 8: Null Models and ICCs for Indicators

Indicator	Beta	t value	ICC
"How safe do you feel at school"	7.93**	51.19	0.045
"I feel like I belong"	1.46**	16.56	0.009
"I wish I did not attend"	-1.28**	-13.48	0.013
"This is a pretty good school"	1.94**	8.55	0.089

* $p < .05$ ** $p < .01$

Like the models developed earlier, these models were also developed starting at the first level and then continuing to the second level. The first level HLMs for the four indicators of schools safety yielded similar results to the models containing the data for only the three schools that responded to the survey. Statistically significant relationships for the first level models of all four indicators include: age, gender, grades in school, knowledge of weapons in school, and witnessing weapons in school. Race was not statistically significant in the models. The first level models show the effect that student level variables have on perceptions of safety. In order to understand the effect of school level variables, it is necessary to analyze the complete HLMs.

The complete HLM models generally show no statistically significant relationships between school level variables and student perception of safety measures. The details of these HLMs are presented in table 7. These HLMs show that the relationship between school level variables and student perceptions of safety is weak,

with p-values for these relationships being greatly in excess of the maximum for statistical significance. Similar results were found for both direct and indirect measures of safety.

Phase 2

Hypothesis 2

The second hypothesis will be tested using a series of chi-square tests with phi coefficients to determine the strength and direction of their relationship. The results of these chi-square tests are presented in table 9. First, these statistics were calculated for the reporting behavior of students when faced with seeing "a gun" and seeing "a knife or other object" in school. This test resulted in no statistically significant difference between SRO program implementations. Second, similar analyses were conducted on the other reporting options. Similarly, these relationships were not statistically significant, with exception to the "tell no one" option for both seeing a gun and seeing a knife or other object. The analysis shows that students attending schools that have SRO programs characterized as community-oriented in nature are slightly more likely to tell no one than students in schools with SRO programs characterized as law enforcement in nature.

There are several possible explanations for this reporting behavior, including, for instance, students in community-oriented programs feeling safer so they report to no one more often. Furthermore, students in community-oriented programs do not witness weapons in school as much resulting in reporting these occurrences to no one. This was determined via a Chi-Square test with a Phi coefficient. These tests determined that students in community-oriented programs were significantly less likely to see weapons in

school (Phi = 0.076, p-value < 0.05). Knowledge of weapons in school, however, did not have a significant relationship to SRO implementation.

Table 9: Chi-Square Tests with Phi Coefficients for Reporting Behaviors

Indicator	Answer	Pearson Chi-Square	df	Phi Coefficient
Saw a Gun	The Principal or Asst. Principal	0.014	1	-0.004
	A Teacher	0.137	1	-0.012
	A Counselor	2.318	1	0.048
	A Police Officer or Security Guard	0.549	1	-0.023
	A Parent or Family Member	0.147	1	-0.012
	A Friend	0.073	1	0.009
	No One	6.070*	1	0.078*
Saw a Knife or Other Object	The Principal or Asst. Principal	2.510	1	-0.051
	A Teacher	1.059	1	-0.033
	A Counselor	0.708	1	0.027
	A Police Officer or Security Guard	0.450	1	-0.021
	A Parent or Family Member	0.169	1	0.013
	A Friend	0.570	1	-0.025
	No One	5.843*	1	0.077*

* p < .05 ** p < .01

Chapter 9
Discussion

The analysis of the first hypothesis yielded interesting results. To test the first hypothesis, each of the four indicators for the perceptions of school safety was analyzed with SRO program implementation style, as well as other demographic and control variables. First, the relationship between these indicators and SRO program implementation was analyzed. Second, HLMs were developed to determine the effect of student level characteristics for the sample of three schools, which returned the SRO survey. Separate HLMs were developed to analyze the effect that student and school level variables had on perceptions of safety. These models included seven schools from the eight originally contained in the sample. The original intent of the study was to analyze the effect that SRO program implementation style, in conjunction with other variables at both the student and school level, had on student perception of safety. As stated previously, it was not possible to develop HLMs that were capable of producing meaningful results at the second level with only three schools. Despite this limitation, meaningful results were found.

The individual analysis of indicator "how safe do you feel at school", the statement: "On a scale of 1 to 10, with 10 being the most safe, how safe do you feel at school," with SRO program orientation found evidence that community-oriented SRO programs have a statistically higher perception of safety. Students at schools with community-oriented programs report a mean perception of safety of 8.07 while students at schools with law-enforcement programs report a mean of 7.24. While this difference is not a large one, it is preliminary evidence that SRO program implementation does have an effect on this indicator of perception of safety. The null HLM for the three schools for

this indicator found produced an ICC of 0.097. This indicates that only 9.7% of the variation in this indicator can be explained by the grouping variable, which in this study is the school the student is attending. The ICC for the null model for seven schools was 0.045. This is also a small ICC; together both ICCs indicate that very little of the variation in this indicator variable can be explained by analyzing by different schools at the second level. The HLM for this indicator for the sample, including SRO implementation, resulted in significant relationships between gender, age, grades in school, and the presence of weapons (both knowledge and witnessing weapons in school) and perceptions of safety. The model with seven schools found similar results. Furthermore, all school level characteristics found to be not related to the indicator at a statistically significant level.

The results for indicator 2, the statement: "I feel like I belong at this school," yielded similar results. This was tested using a chi-square test with a phi coefficient for directionality and strength of the relationship. The results suggested that SRO program implementation and this indicator variable were related at a statistically significant level. In particular, students attending schools with SRO programs characterized as community-oriented were more likely to agree to the indicator statement. For the purposes of this study, agreeing with this statement is being considered as an indication that a student feels safe in school. As a result, students with community-oriented programs report higher perceptions of safety than students with law enforcement oriented SRO programs. This effect, however, is very small (phi = 0.066). The ICCs for the null models of both the three and seven school HLMs are 0.011 and 0.009 respectively, which are very small as well. HLM models for both three and seven schools reported similar results at the

student level. Age, grades in school, as well as the perceptions of weapons, both knowledge of weapons and school and witnessing them at school, were statistically significant in both models. Like the previous indicator, this indicator did not have any statistically significant relationships to school level variables.

The third indicator was the response to the statement "I wish I did not attend this school." The test for the relationship between this indicator and SRO implementation style found that students that attend schools that have SRO programs characterized as law-enforcement oriented were more likely to agree with this statement. For the purposes of this study, a negative response to this statement is being interpreted as a student feeling safe at school. As a result, students at community-oriented programs are slightly more likely to respond in a way interpreted as feeling safe (Phi = -0.103). The ICCs for the null models of both the three and seven school HLMs are 0.019 and 0.013 respectively. The fourth indicator was the response to the statement "this school is a pretty good school to go to." The test for this relationship found that students at community-oriented programs were more likely to agree to this statement at a statistically significant level; agreement to this statement is being interpreted as an indication of a student feeling safe at school. The ICCs for the null models of both the three and seven school HLMs are 0.083 and 0.089 respectively. Similarly to the previous two indicators, indicators "I wish I did not attend" and "This is a pretty good school" both have small ICCs. This provides evidence that there is little variation explained by differentiating by school. The HLMs for this indicator provide evidence that similar student level predictors are statistically significant in this model as the other models. Also, there is not a statistically significant

relationship between school level predictors and this, or any, indicator of the perception of school safety.

Overall, preliminary tests indicate that community-oriented programs have a slightly higher perception of safety when compared to law enforcement oriented programs. Further analysis of this hypothesis is not possible because of the small number of schools that returned the SRO surveys. Only three schools returned the survey, which was the tool used to classify SRO programs by orientation style. A sample of three schools was not enough to create a HLM with any school level variables, with meaningful results. This precluded HLMs being developed to test the effect of SRO implementation on the indicators of school safety. In order for any HLMs to be developed to test the effect of school level variables on perceptions of safety indicators, it was necessary to develop HLMs with data from more schools. As stated previously, seven of the schools were used. Program Small 2 was left out of further analysis because of the methodological issues with calculating a median income for a regional school district based on aggregate data.

The models, however, produced similar results. The null models for each of the four indicators indicated that the intercepts for the three and seven school models were: 7.86 and 7.93 for indicator 1, 1.46 and 1.46 for indicator 2, -1.24 and -1.29 for indicator 3, and 1.82 and 2.03 for indicator 4, respectively. The intercepts are pretty close between three and seven school models, indicating that there is not much change in the data between models. Furthermore, with relatively similar ICCs between models, similar variables having statistically significant relationships, and none of the school level

variables having and statistical significance in the models, there are not many differences between the three and seven school HLMs.

Also of interest is that in all of the models at both levels, either one or both of the variables identifying presence of weapons in schools were statistically significantly related to perceptions of safety. In all cases, presence of weapons decreased perceptions of safety. Furthermore, the effect of this variable was stronger than any other effect controlled for in the HLMs. This provides evidence that presence of weapons in school has an effect on student perceptions of safety. The strength and presence of this effect in particular is important because it stands to reason that the knowledge of weapons in school and witnessing weapons in school should both negatively affect perceptions of safety.

The second hypothesis, that students at schools with community-oriented SRO programs would be more likely to report seeing "a gun" or seeing "a knife or other object" to the SRO, was measured using two questions from the student survey asking students to identify authorities they would report to in the event of seeing a gun in one question and seeing a knife or other object in the second. The results of the chi-square tests with phi coefficients for each of these reporting behaviors found no statistically significant relationships between SRO program implementation style and reporting behaviors except for the response "tell no one." This response was more likely in the schools that had community-oriented SRO programs. There are several possible reasons for this reporting behavior. First, it is possible that because students in community-oriented programs feeling safer, they do not feel that they need to report to anyone when compared to students in school with law enforcement SRO programs. Also, students in

community-oriented programs do not witness weapons in school as much as law enforcement oriented SRO programs, which could explain why students do not report needing to tell anyone about these occurrences. Overall, this indicates that SRO program implementation has little effect on reporting behaviors.

The results of this study do not coincide with social disorganization theory. Social disorganization characteristics were being used as a possible alternative explanation to student perception of safety. While this study hypothesizes that SRO program implementation has an impact on student perception of safety, neighborhood characteristics were also being controlled to determine their effect. The community level variables were not found to be statistically significant. The primary measures of social disorganization used in HLMs were the percent of student population receiving reduced price or free lunch, school level attendance, and school level suspensions. None of these variables were found to have a statistically significant relationship with perception of safety in any of the HLMs, meaning that there is no support for social disorganization in this study with the given sample. The analysis found that instead of social disorganization characteristics, perceptions of weapons in school had a more profound impact on perception of safety, as well as demographic variables.

It is important to note that the results in this study should be scrutinized. There are several limitations to the current study. The first, and perhaps the most significant, limitation to the current study is the small number of schools in the sample. Even the total sample of all eight schools limited the size and number of variables that could be included in the HLMs. Furthermore, having only three schools provide survey data to classify the programs further limited the higher analysis to exclude the main independent

variable, SRO program implementation. This prevented any higher analysis of the first hypothesis. It is impossible to determine if SRO implementation would have been insignificant similarly to all other school level variables, or if it would have had a significant impact, as was indicated in the direct analysis between the indicator and SRO program orientation style. Furthermore, the primary indicator for the second hypothesis, reporting behaviors to police or security officer, is not directly targeting the SRO. It is possible that utilizing an indirect measure to answer this hypothesis provided an inaccurate picture of reporting behaviors. Finally, it is impossible to determine the casual ordering between perceptions of safety and SRO program implementation. It is possible that SRO program implementation affects perceptions of school safety or SRO program implementation is a result of school safety measures.

Future research should revisit these hypotheses and, in doing so, utilize a larger school sample. This would permit better HLMs to be developed to further explore the effect that SRO implementation style has on student perceptions of safety, while controlling for other factors. Also, a larger sample of schools could cover a larger variety of levels of social disorganizations characteristics as well as more variation in the activities of SRO programs. All of this information would be helpful in further understanding SRO programs and their effect on student perception of safety.

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Appendix A
School Resource Officer Program Survey

1) What, if any, activities do you perform regularly? Check all that apply.

O	Arrests	O	Investigations
O	Student Discipline	O	Deterrence
O	Patrolling	O	Responding to calls for Service
O	Counseling Students	O	Providing Alternative Sanctions
O	Mentoring Students	O	Teaching Programs and Educating Students (Other than DARE or GREAT)

O Other (Please List)_____
_____

2) Estimate the percentage of student interactions that are disciplinary or law enforcement in nature. _____

3) Does your school use DARE and/or GREAT programs? If so, check which ones used.

O	DARE	O	GREAT

4) Is it within the duties of the SRO to teach DARE and GREAT programs (if used)? If it is the duty of the SRO, are you the SRO that teaches DARE or GREAT

O	YES	O	NO
O	Your Responsibility	O	Other Responsibility

5) Does your program utilize educational programs other than DARE or GREAT? If so, what are they?

_____
_____
_____

6) What security measures does your school/s implement? Check all that apply.

O	Hallway Supervision Day	O	Locked Doors During the School
O	Visitors Required to Sign In	O	Locker Checks
O	Student IDs	O	Security Cameras
O	Student Code of Conduct	O	Other_____

7) Is it the responsibility of the SRO to help utilize these security measures?

O YES O NO

8) How does your program determine what activities you should perform regularly? Check all that apply.

O SRO Discretion O School Administration
O Police Supervisors

9) Do you feel that your program is more focused on law enforcement or community policing?

O Law Enforcement O Community-Policing

10) Is there anything you would change about the orientation of your program between law enforcement and community policing?
O NO
O YES (If so, what?)_____
_____

11) Do you feel that your program is effective at making students feel safer?
O YES O NO

12) Is there anything that you would change about the SRO program to make students feel safer?
_____
_____

13) How many SROs does your department assign to this school?
_____

14) What training, if any, did you have prior to or shortly after your assignment as an SRO?
_____
_____
_____

15) How many schools are you assigned to as an SRO?
_____

16) How many years has your department assigned SROs in schools?
_____

17) How many years have you been assigned as an SRO?
_____

18) Were you assigned to any other schools as an SRO before this one?_____

19) When a crime is committed in school, are you notified? If not, who is notified?
_____
_____
_____

20) Have you or other SROs been involved in arrests in school?

O Yes O No

21) If so, what kinds of acts were the arrests for?

O Violent O Non-Violent

22) What was the outcome of the arrest?

O Formal Charges O Informal Solution

23) Are there problems with other, non-criminal, incidents at school?

O Yes O No

24) Who deals with these incidents?

O SRO O Administration O Other

25) Do you ever get involved?

O Yes O No

26) If yes, how?
_____
_____
_____

27) Please add any additional comments about your relationship with the students.
_____
_____

28) Please add any additional comments about your relationship with the school administration.

_____
_____
_____

Appendix 2
Selected Questions- CAS Social Norms Campaign- High School Survey

On a scale of 1 to 10, with 10 being the most safe, how safe do you feel at school?

I feel like I belong at this school (Yes/No)

I wish I did not attend this school (Yes/No)

This school is a pretty good school to go to (Yes/No)

Do you know if any students have brought a weapon (like a gun, a knife, or another object that can hurt someone) to your school? (Yes/No)

Have you actually seen another student with a weapon on school grounds? (Yes/No)

If YOU saw a gun at school, would you tell:
- The principal or assistant principal
- A teacher
- A counselor
- A police officer or security guard
- A parent or family member
- Tell a Friend
- No one

If YOU saw a knife or another object that could hurt someone at school, would you tell:
- The principal or assistant principal
- A teacher
- A counselor
- A police officer or security guard
- A parent or family member
- Tell a Friend
- No one

Are you a: (Male / Female)

How old are you?

What grade are you in?

How would you best describe yourself?
- White, African-American or Black, Latino or Latina, Asian American or Pacific Islander, Native American or Alaskan Native, Multiracial

What grades do you earn in school?