THE SCHOOL RESOURCE OFFICER IN PUBLIC SCHOOLS: PERCEIVED DETERRENT EFFECT ON CAMPUS CRIME

by

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ABSTRACT

The purpose of this study was to examine student perceptions of the deterrent effect of School Resource Officers on crimes that may occur on school campuses and the factors that may influence those perceptions. The first school resource officer (SRO) program was implemented in 1953 and gained popularity in the 1990s. This study (conducted in 2008) reveals that the majority of students perceive that school resource officers are a deterrent to specific crimes and the overall crime rate on school campuses.

The results of the survey indicated that the crimes of rape (74.1%), homicide (73.7%), aggravated assault or threat with a weapon (70.5%), sexual assault (67.0%), robbery (64.9%), and weapon possession (68.4%) had the highest percentage of students who responded agree (strongly agree or agree) that the school resource officer was a perceived deterrent to those crimes on the school campus. The incident with the lowest perceived deterrent effect was truancy with 48.9% of the students responding with strongly agree or agree.

Based on a multivariate analysis, this study found that the factors that influenced the students' perceptions of the School Resource Officer as a deterrent to crime were students' age, class standing, school attended, exposure to a SRO, friends' crime history, and family crime history. The students' race, past crimes, income level, and gender were not statistically significant for any of the dependent variables. The examination of the ordinal logistic regression showed the percentage of variance the model explained was

low. Based on this research with the limitations presented, the SRO is perceived as a deterrent to crime on school campuses. The deterrent effect was not stronger in any one demographic group. Peer pressure was one factor that was an influence in the majority of studied crimes.

I would like to dedicate this dissertation to my family.

To my wife Laura without whom I may never have started this journey, I owe endless gratitude for the sacrifices that she has made.

To my son David who has had to endure the countless hours spent on this study.

To my parents, Bruce and Nancy Rhinehart, who have had to sacrifice my presence at many family functions and gatherings.

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CHAPTER ONE: INTRODUCTION

On April 26, 2002, 19-year-old Robert Steinhaeuser, who had been expelled from Johann Gutenberg High School in Erfurt, Germany, returned to the school and shot to death 13 teachers, two students, and a police officer before killing himself (Indianapolis Star, 2004). On September 24, 2003, Aaron Rollins, 17, was killed and Seth Bartell, 14, was critically wounded when 15-year-old John Jason McLaughlin walked out of a locker room at Rocori High School in Cold Spring, Minnesota and shot them with a .22-caliber gun he had in his gym bag. Bartell died October 10 that same year. On February 2, 2004, 17-year-old James Richardson was shot to death in Ballou Senior High School in Washington D.C. The shooting resulted from a confrontation with another student who was later arrested. On November 24, 2004, James Lewerke, a 15-year-old student at Valparaiso High School in northern Indiana, pulled two knives out of his pants and stabbed seven of his classmates. On March 21, 2005, Jeff Weise arrived at school after killing his grandfather and a companion, and then he killed a teacher, security guard, five students, and then himself (Infoplease, 2008; U.S. News & World Report, 2008). As these examples show, the number of students killing students or school officials on school campuses is a serious concern.

One of the most widely publicized school violence incidents in the United States occurred on April 20, 1999 in Littleton, Colorado. Columbine High School students' Dylan Klebold, 17, and Eric Harris, 18, went on a shooting rampage, killed 12 of their

classmates and one teacher, and then took their own lives. This was one of the bloodiest school violence incidents in United States history (Indianapolis Star, 2004). The Columbine High School incident was different from many other school violence incidents in that Columbine High School had a school resource officer assigned to the campus. The school resource officer was unable to prevent the incident because he was off campus when the incident started. The officer responded to the scene immediately.

Statement of the Problem

Violence on school campuses is not a current phenomenon. One of the earliest documented school shootings occurred in 1974 where an 18-year-old honor student set off a fire alarm to distract the occupants of the school in Olean, New York. The student had a homemade bomb and guns. During the commotion he shot at the janitors and the firefighters that responded (Vossekuil, Fein, Reddy, Borum, & Modzeleski, 2002).

Violent incidents (including homicide, rape, sexual assault, robbery, or assault) were reported in 96% of high schools, 94% of middle schools, and 74% of elementary schools during 2006 (Moss, 2007). The U.S. Department of Justice, Federal Bureau of Investigation compiles statistics maintained in the Uniform Crime Reporting (UCR) program for reported crimes using the Summary Reporting System or the National Incident-Based Reporting System (NIBRS). According to the UCR Program using NIBRS reporting system, between 2000 and 2004 there were 619,453 violent incidents (murder and nonnegligent manslaughter, forcible rape, robbery, and aggravated assault) at schools committed by 688,612 offenders (multiple offenders in single incidents). It

should be noted that reporting to the UCR Program is voluntary and the numbers represent 33% of all agencies in 2004 (Noonan & Vavra, 2007).

Kenneth Trump (2008), president of the National School Safety and Security Services Incorporated reported that between August 1, 1999 and April 16, 2008 there were 260 violent deaths on school campuses. During the time between 1992 and 2000, Knapp (2001) reported that there were 279 violent deaths in schools. According to the United States Department of Education (2000), in 1998, 12 through 18 year old students were victims of more than 2.7 million crimes at schools. Included in those crimes were 253,000 serious violent crimes (rape, sexual assault, robbery, and aggravated assault). There were 60 deaths including 47 homicides between July 1, 1997 and June 30, 1998 at U.S. schools. It is estimated that students brought between 100,000 (Townley & Martinez, 1995; Vardalis & Kakar, 2000) and one million (Peterson, 1998) guns to schools during the school year. A 2005 national survey of students reported that 6.5%, over 1,000,000 students surveyed, carried a weapon to school on one or more days in the past 30 days (Chyen et al., 2005). The above examples demonstrate the wide range of violence occurring on school campuses.

These negative perceptions are correlated to an interruption in the academic learning process (Strandberg, 1999). The Center for the Prevention of School Violence states that "evidence suggests that the types of incidents which are taking place on school property may be more severe in nature than in the past and may be having a marked negative impact on the educational processes for which schools are responsible" (McDaniel, 1999, p. 1). The Youth Risk Behavior Surveillance (Chyen et. al., 2005) reported that six percent of high school students surveyed did not attend school on one or

more days during the last 30 days because of fear for their personal safety. The fear of violence at school was offered as the reason five percent of students missed one or more days of school each month (Santoro, Massey, & Armstrong, 2002). A survey of 65,193 students in grades six through twelve reported that 63% would learn more if they felt safer at school. In addition, respondents stated that they have avoided restrooms (43%), hallways (20%), and school grounds (45%) because of safety concerns (Ansley, 1993). Bowen, Richman, Brewster, and Bowen (1998) reported that administrators must reduce the number of students carrying weapons because students cannot focus on learning when they do not feel safe at school. Kennedy (2004) reported that it is crucial for schools to make school campuses a place where learning takes place. Students must feel safe for the optimal learning process to occur.

School violence in the United States is a problem that must be addressed (Johnson, 1999). Former President Bush stressed that the nation must become involved to help thwart deadly school shootings. The nation must learn from school violence incidents and make the effort to prevent similar tragedies from happening (Feller, 2006).

School systems are continually attempting various methods to combat school violence. These methods include installing metal detectors, requiring mesh book bags or no book bags at school, random locker searches, and the technology comprised of student access cards (Strandberg, 1999; Vardalis, & Kakar, 2000). The access cards are designed to monitor the students on campus and to reduce the number of individuals who do not have a legitimate reason to be on campus.

Another method considered by a number of schools is implementation of conflict resolution programs. School districts are modifying the school environment to eliminate

lockers, increase lighting, require student identification cards, and the use of video cameras to monitor student activity. Schools are also attempting to control violence through school uniforms. School uniforms reduce loose clothing making it harder to hide weapons and diminish gang association that may be associated to specific types or colors of clothes worn. Other methods to combat school violence include zero tolerance policies for weapon possession that mandate mandatory expulsion for the guilty student (Garcia, 2003).

One of the more popular programs to attempt to deter school violence is the employment of school resource officers (Johnson, 1999). The school resource officer program is a partnership between the school system and local law enforcement. This program aims to place police officers in schools either part or full time to help deter school violence. The school resource officer (SRO hereafter) program was introduced in Flint, Michigan, in 1953 by placing one law enforcement officer in a school (Mulqueen, 1999). Fresno, California, introduced the next documented SRO in 1968 (West & Fries, 1995).

There are anecdotal reported instances in which the SRO program has been successful in deterring crime. An example can be found in the incident paraphrased by the headline that stated "SRO Averts Repeat of Columbine." A student in Elmira, New York, brought two loaded guns and 18 homemade bombs to school. The SRO was able to prevent the incident prior to the occurrence of any violence (O'Brien, 2001). Another example can be found in an incident in Iowa, where a SRO foiled a plan to set off a bomb at the school prom (Juvenile Justice Digest, 2002). The exact number of violent incidents

prevented by the SRO program is unknown, and therefore makes the success of the program difficult to measure.

The presence of law enforcement officers or SROs on public school campuses is increasing and becoming more accepted. According to the National Association of School Resource Officers (NASRO hereafter), in 2005 there were more than 15,000 SROs who were members of NASRO. The number of SROs in 2005 increased 67% from 9,000 in 2001 (Trump, 2002). One report placed SRO programs in 35 states (Hebert, 2007). Today, school administrators are becoming increasing dependent upon the SRO to combat the fear of crime on campus (Del Carmen, Polk, Segal, & Bing, 2000).

There are other types of law enforcement officers who have a presence on school campuses. The Drug Abuse Resistance Education (DARE) program began in 1983 in the Los Angeles, California, Unified School District with 10 officers. In 2001, it was estimated that 49,000 officers had been trained to teach DARE and between 7,838 and 9,264 officers actively teach DARE (Shepard, 2001). The Gang Resistance Education and Training (GREAT) program began in 1991 and by 2005 more than 8,000 law enforcement officers were certified to instruct the program intended to prevent gang violence (Bureau of Justice Assistance, 2005). Depending on the agreement between the local law enforcement agency and the school system, SROs may also participate in the DARE or GREAT programs. Therefore, the exact number of law enforcement officers who have a presence on school campuses is unknown, but is likely in excess of 15,000 (Trump, 2002). Girouard (2001) reported that the reason it is difficult to achieve a precise number of SROs is that there are many types of school law enforcement programs and there is no standard definition for SROs.

The large number and public cost of SROs, the various roles they embrace, and the limited empirical research surrounding this large-scale initiative dictates that the use of SROs should be closely examined to determine if the program has a deterrent effect. The amount of public funds and resources dedicated to the SRO program warrants empirical assessment. Shepard (2001) reported that in 2000 the average yearly cost for one full-time law enforcement officer or SRO for salary and benefits is $68,572. By the year 2006 that estimate had grown to $80,000 (Finn, 2006). The average salary and benefits varied depending on geographical location. From these estimates one can conclude that the total estimated annual cost for the 15,000 SROs would be between $1.0 and $1.2 billion. In addition, the estimated total cost of the DARE program is $1.0 to $1.3 billion (Kalishman, 2003). The estimated annual cost for the 8,000 law enforcement officers instructing the GREAT curriculum would be between $548,576,000 and $640,000,000. The SRO, DARE, and GREAT programs consume an estimated annual budget in excess of $3 billion. The amount of money spent, resources involved, and law enforcement officers assigned to schools suggests that the programs are worthy of empirical examination.

Sources of funding for the SRO, DARE, and GREAT programs are also important factors to consider and add credence to the importance of understanding what impact on crime and the perception of crime these individuals can have on school officials and students. If funding was solely a function of private enterprise, the impact of the program implementation on public funding would be minimal. The financial resources vary depending on the agreement between local law enforcement and the school system. Funding options in agencies differ, and include various cost-sharing levels, for example:

local law enforcement agencies may subside 100%, the school system may subside 100%, or local law enforcement and the schools system may each fund a percentage of the cost of the program. In addition, grants are available to law enforcement and the school systems to reduce or fund the SRO program. The majority of resources allocated to fund the SRO program are public monies (Finn, Townsend, Shively, & Rich, 2003). Therefore, the importance of the program's effectiveness is worthy of examination.

The U.S. Department of Justice, Office of Community Oriented Policing Services (COPS) administers the COPS in Schools (CIS) grant program. The program provides a maximum federal contribution of up to $125,000 per officer position for approved salary and benefit costs over the three year grant period with any remaining costs to be paid with local funds. COPS announced the first round of the CIS program in April 1999, and the most recent awards were given in July 2005. COPS has awarded in excess of $753 million to more than 3,000 law enforcement agencies to hire more than 6,500 SROs through the CIS program. In addition, COPS has provided more than $10 million to hire approximately 100 SROs through the Safe Schools/Healthy Students program (U.S. Department of Justice, 2008). The Safe School/Healthy Students Initiative has awarded over $700 million to local educational, mental health, social services, law enforcement, and juvenile justice agencies. The grants targeted youth violence prevention that included the SRO program (US Department of Education, 2004).

According to the U.S. Department of Justice, the COPS' Making Officers Redeployment Effective (MORE) 1995 and 1996 grants awarded over $530 million for the assignment of more than 22,000 officers and deputies to SRO programs. The COPS' MORE 1998 grant was $437.6 million (U.S. Department of Justice, 2005). The U.S.

Department of Education, Health and Human Services and the U.S. Department of Justice Office of Community Oriented Policing Services awarded $38 million, $80 million, and $41 million in the years 2001, 2002, and 2003 respectively to schools and communities to prevent violence among youth that could include help in funding SRO programs (Hertz, 2003). There are more than 15,000 SROs on school campuses that cost the taxpayers estimations of over $1 billion yearly with insufficient empirical evidence of the impact on deterring school violence and enhancing school safety.

Roles of the SRO

In addition to the SROs' economic impact, the respective role a SRO assumes and subsequent deterrent effect warrants assessment. There are several types of SRO that may be assigned to a school campus. The different roles of a SRO may impact the student perception of the deterrent effect on school crimes. One issue that may limit the success of the SRO program is the type of SRO who shall be placed on the campus and the different types of duties that may be assigned to the SRO. There is no one standardized definition for a SRO (McDaniel, 1999). Part Q of Title 1 of the Omnibus Crime Control and Safe Streets Act of 1968 (Girouard, 2001) defines the SRO as "a career law enforcement officer, with sworn authority, deployed in community-oriented policing, and assigned by the employing police department or agency to work in collaboration with school and community-based organizations." The National Association of School Resource Officers (McDaniel, 1999, ¶ 6) defines the SRO as:

> Officers who promote a better understanding of our laws, why they were enacted and their benefits. They provide a visible and positive image for law enforcement.

> They serve as a confidential source of counseling to students concerning problems they face. They bring expertise into schools that will help young people make more positive choices in their lives. They also work to protect the school environment and to maintain an atmosphere where teachers feel safe to teach and students feel safe enough to learn.

The U.S. Department of Education (2004) defined the SRO as:

> A career law enforcement officer, with sworn authority, deployed in community oriented policing, and assigned by the employing police department or agency to work in collaboration with schools and community-based organizations to: (a) address crime and disorder problems, gangs, and drug activities affecting or occurring in or around an elementary or secondary school; (b) develop or expand crime prevention efforts for students; (c) educate likely school-age victims in crime prevention and safety; (d) develop or expand community justice initiatives for students; (e) train students in conflict resolution, restorative justice, and crime awareness; (f) assist in the identification of physical changes in the environment that may reduce crime in or around the school; and (g) assist in developing school policy that addressed crime and recommend procedural changes.

The Center for the Prevention of School Violence defined the SRO as:

> A SRO is a certified law enforcement officer who is permanently assigned to provide coverage to a school or a set of schools. The SRO is specifically trained to perform three roles: law enforcement officer; law-related counselor; and law-related education teacher. The SRO is not necessarily a DARE officer (although many have received such training), security guard, or officer who has been placed

> temporarily in a school in response to a crisis situation but rather acts as a comprehensive resource for his or her school. (McDaniel, 1999)

The differing SRO definitions and roles may limit the ability of some research to be generalized to the different types of SROs. The diverse types of SROs may have varying levels of crime deterrence on a school's campus.

In addition to the various definitions of a SRO, the school system, individual schools, and the partnership between local law enforcement and the school may require a law enforcement officer in a school participate in a number of different programs with different roles. The level of schools that receive a law enforcement officer may vary with the program. SROs have been placed at the elementary, middle or junior high school, and high school levels or any combination of the three. SROs may also be assigned to the schools on a full or part-time basis (Peterson, 2002). McDaniel (1999) examined the number of SROs that are assigned to the different school levels. The results revealed that there are more SROs assigned to high schools compared to middle schools or elementary schools. The number of SROs assigned to a school may also vary from one part-time SRO to a school that may have four SROs assigned full-time.

According to Johnson (1999), one unidentified southern school system/law enforcement partnership placed law enforcement officers in middle and high schools only. Jackson (2002) studied a school system in south-east Missouri that placed police officers in high schools only. There are other programs similar to the SRO that places police officers in schools including the DARE and GREAT programs. The DARE program's officers are assigned up to four elementary schools. The DARE officers visit each elementary school one day a week to instruct drug resistance education classes. The

GREAT program does not suggest how the officer is assigned only that GREAT is instructed at the middle school level by GREAT certified police officers. The amount of exposure that a student obtains with a SRO may affect the relationship between the student and the SRO. The more positive the relationship between the SRO and the student, one would hypothesize an increased deterrent crime effect of the SRO.

The role that the SRO assumes varies depending on the contract between the local school board and the law enforcement agency providing the officer. A survey of 658 SROs showed that the officer spends varying amounts of time in different functions that may include; 13% as an instructor/teacher, 46% as counselor/mentor, and 41% in a law enforcement capacity (Trump, 2002). The partnership between the school system and the law enforcement agency also create variance in how much time and how officers teach, mentor/counsel, enforce laws, or any combination of the three.

The different types of SRO programs should also be studied to determine which role or combination of roles for the police officer is most effective in deterring school violence or more specifically, the different types of crimes. It is believed that SROs that can develop and maintain a relationship throughout the students' primary and secondary education have a greater deterrent effect compared to SROs who are only stationed at the secondary schools. This study focused on one school system that uses one of the more common SRO programs. The triad approach for SROs was examined. The triad approach directs the SRO to be the law enforcement officer on school campuses, a law-related education teacher, and a law-related counselor/advisor that aids the schools guidance department and administration as a resource for students and parents (McDaniel, 1999).

SROs play an important function on school campuses. As stated earlier, SROs have prevented violent incidents from occurring or escalating. The SRO helps provide a sense of safety for students, faculty, and administrators on school campuses. Programs such as DARE and GREAT help instruct students about drug prevention and gang avoidance. There are a variety of reasons why SROs are important, but the relative lack of research warrants attention. This research endeavor adds to the limited body of research in this area by exploring the students' perception of the SRO as a deterrent to crime.

The amount of public monies dedicated to the SRO program, the various SRO roles, and the limited empirical research warrants research on the SRO program. This study expanded on the research conducted by Jackson (2002) and focused on the perception of the students at the high school level who have had the presence of a SRO for more than one year during their school enrollment. This study determined if prolonged exposure to the SRO increases the deterrent effect on juvenile crime. The studied school system has stationed a SRO at each of the traditional public schools in the district. The studied school district uses the triad approach for the SROs.

The research questions to be investigated are:

- Do students perceive that the presence of a SRO is a deterrent to a variety of crime on school campuses?
- Does the student's age, race, gender, class standing, income level, school attended, past crimes, exposure to a SRO, friends' crime history, and family crime history influence the students' perception of the SRO as a deterrent to the studied crimes.

CHAPTER TWO: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

History of SRO

According to the literature, the Indianapolis Public School Police Department was the first law enforcement agency to have a police officer whose principal function was the public primary and secondary schools[1] in the fall of 1939. The schools employed a "special investigator" who worked in the schools until promoted to the "supervisor of special watchman" in 1952 (Coy, 2004). Police first worked directly with San Francisco schools in 1942, although the phrase school resource officer was not coined until years later (Keiger, 2002). The SRO was first introduced in 1953 in Flint, Michigan, (Keiger, 2002; Mulqueen, 1999; Sherling, 1998). The officers served as teachers and counselors in various schools. The program was determined to be a huge success and the Flint, Michigan, program became a model for future school resource officer programs. Even though the Flint, Michigan, program was a success, it was not until 10 years later, in 1963, that another SRO program started. Tucson, Arizona, Police Department assigned officers to junior high schools. Their primary function was to improve the relationship between the police and juveniles. In 1966, the Saginaw, Michigan, Police Department

[1] According to the United States Department of Education (2008), there is not a mandated structure for primary and secondary schools. Primary schools also called elementary schools are considered the first year of school through grades five or six. Secondary schools are generally grades six or seven through grade 12.

implemented a SRO program. This program was unique in that the SROs were not assigned to one school. The Saginaw Police Department assigned two officers to cover all the schools within the city's jurisdiction that included two high schools, five junior high schools, and 27 elementary schools. The Saginaw SRO program was not as effective in changing attitudes of juveniles toward law enforcement as other programs had been because of the requirement of two officers covering 34 schools (Sherling, 1998).

The SRO program spread to several other cities in the late 1960s, and the triad approach was first recognized in 1967 in Cincinnati, Ohio. The Cincinnati Police Department instructed their officers to concentrate efforts on classroom instruction and minimize law enforcement activities except in emergency situations. In 1968, Los Angeles, California, saw the first combined efforts of local police and sheriff's departments by assigning officers full time to the junior high schools. The SRO was a resource for parents, students, and staff by becoming an informal counselor. Tulare, California, and Miami, Florida, implemented SRO programs in 1968 and 1969 respectively (Sherling, 1998).

The State of Florida experienced tremendous growth of the SRO programs from the 1970s through the 1990s. Orlando (1972) and Hillsborough County (1975) started SRO programs in which the officers' roles were that of a teacher, counselor, and law enforcement officer. The Office of the Florida Attorney General developed the first SRO training program in 1985. By the 1990s, every county in the state of Florida had some form of SRO (Sherling, 1998).

The Los Angeles Police Department and the Los Angeles Unified School District combined efforts in 1983 and developed the DARE program. This program was another role to place police officers in the schools. The program became popular immediately and spread throughout the United States. The DARE program was implemented by many agencies even though there was little to no empirical research regarding the effectiveness of the program (Mitchell, Florin, & Stevenson, 2002; Rosenbaum & Hanson, 1998). Eskridge (2005) reported that empirical evidence suggests that the DARE program does not statistically reduce drug use and Bean (2004) reported the program does not work; and yet the program continues.

The SRO program gained in popularity in the 1990s. However, most agencies that employ a SRO today did not establish the program until the late 1990s (Kennedy, 2001). By 2004, all 50 states had active SRO programs in some form (May, Fessel, & Means, 2004). Sporadic survey data has revealed that teachers and students perceived that their schools are safer with the presence of a SRO (Canady, 2001). However, empirical research that focuses on the student perceived SRO deterrent effect on campus crime focused in this study is minimal.

SRO Program Empirical Research

The empirical research is limited that focuses on the SRO program as a deterrent to crime on school campuses (Mulqueen, 1999). In fact, Jackson (2002) conducted one of the few studies that addressed the topic of the SRO as a deterrent to crime on school campuses. The research examined four high schools in the south-east region of Missouri. The sample contained 271 students from the four high schools, and the survey was

administered at two times, once at the beginning of the year during August and September and the second time at the end of the year during March and April.

Jackson (2002) concluded that the use of a SRO did not change student opinion of the police in general or the SRO's deterrent effect. The study concluded that those students who had interactions with the SRO did not change their attitude toward being identified if a delinquent act was committed. The research concluded that the SRO does not serve as a deterrent against concealed criminal behavior (e.g. drug or weapon possession, drug sales, etc.) or where there is a deliberate attempt at remaining concealed.

Jackson's (2002) research reported limited deterrent effects. Jackson further concluded that the SRO presence may act as a deterrent against criminal activity that occurs in public view such as battery or fighting. The study found that the SRO does make a statistically significant difference in deterring all types of assaults on school campuses.

Jackson (2002) listed limitations to his study that may explain why the SRO did not have the deterrent effect that was initially hypothesized. The study examined the SROs in four high schools during the implementation year of a full-time SRO program. There may be a delayed deterrent effect that was undetected by the research. The SROs placed in the schools had no experience in the position of SRO, and officers with higher experience levels may have an increased deterrent effect compared to the SROs with no experience. Jackson suggested that future research should be conducted in schools that have had SROs for more than one year.

Jackson's (2002) study was also limited by the sample. Only juniors and seniors were allowed to participate. Freshmen and sophomores were not included limiting the

generalizability to other populations. Administrative obstacles such as student testing, student availability, and the sampling process further limited the external validity of the study. The goal of the sampling process was to use a paired pre-test and post-test group but limitations made this goal impossible. The final sample was to include all the students who were surveyed at the initial period. However, the number of students initially surveyed available to complete the post-test survey was not large enough to be statistically significant. Therefore, a random sampling of students from the population was used for the post-test. The students for the post-test may have included students who participated in the pre-test, but the number of students surveyed at both times was unknown. Jackson's study did not examine the length of exposure that the students at survey two had to the SRO. In addition, the possibility exists that the post-test sample may have included recently transferred students who may not have completed the pre-test survey.

Jackson's (2002) sample had demographic limitations that would restrict the ability of the study to be representative to other school populations. The U.S. Census Bureau (2000) revealed that the demographics of the U.S. population were 75.1% White, 12.3% Black, 3.6% Asian and 0.9% Indian. Hispanics are included in the previous percentages, but the census states that Hispanics compose 12.5% of any race. Jackson's sample included 86.6% White, 13.4% Black, 0.6% Hispanic, 0.2% Asian, and 0.1% Indian. It is a goal of research to allow for generalization to other areas. Jackson's sample demographics did not reflect the U.S. demographics that may limit the study's ability to be generalized to populations with different demographics from those in the studied region.

As stated earlier in this study, Jackson's (2002) study was one of the few to focus on the SRO as a deterrent to crime on school campuses; therefore it is important to examine some of the other SRO research. Although the research of Santoro, Massey, and Armstrong (2002) did not focus on school resource officers, their study examined the perceptions of school safety at high, middle, and elementary schools. Their research focused only on the faculty and staff's perceptions of school-based issues that contributed to the feelings of safety at school. The results indicated that the faculty and staff believe that their schools were either safe or very safe. The survey showed, however, that only 5.2% of the faculty and 17.6% of the staff believed that verbal threats and illegal activity at school among students were not a problem. The study revealed that 65.2% of the faculty and staff believed the SRO was an effective strategy in making the school safe. Santoro, Massey, and Armstrong's (2002) research is one of the few reviewed for this study that addressed perceptions; however their study focused on the faculty and staff and did not address the perceptions of the students.

Santoro, Massey, and Armstrong's (2002) research also had limitations that may affect generalizability. Their study had 477 returned surveys, but only 360 were complete. The 117 incomplete surveys were simply deleted from the results that lowered the response rate to 40%. The generally accepted rule for survey response rates is that a 50% response rate is adequate for analysis, a 60% response rate is good, and a 70% rate is very good (Babbie, 2007; Babbie, 1990). The study did not obtain the desired minimum response rate of 50% which limits the generalizability of the findings. The results of their analysis indicated that the proposed model provided an unacceptable fit for the data. The only conclusions drawn from the data were that 84% of respondents'

believed that their schools were safe or very safe, insufficient parental support was more problematic at elementary and high schools, and inappropriate child behaviors (e.g., teasing and bullying) were more problematic at middle schools. The researchers concluded that a larger sample size and a revised version of the survey should be used in the future to obtain better results, but they did not specify how large the survey should be or the version of the survey to be used.

May, Fessel, and Means (2004) studied the perceptions of school principals regarding SRO effectiveness. The results reflected that principals perceived that the SRO reduced problematic behaviors at schools; especially fighting, marijuana use, and theft. The principals perceived the SRO to be an important part of the school safety plan. The study did not address the student perceptions of the SRO.

Along a similar line of logic Nihart, Lersch, Sellers, and Mieczkowski (2005) reported little research has focused on the attitudes of juveniles toward the police. In fact, it is a relatively unexplored area of criminal justice research. The research of Nihart et al. research concluded that there is a positive correlation between the attitude of juveniles toward police officers and their attitudes toward parents and teachers. Amorso and Ware's (1983) research found similar results, but concluded that the juveniles' attitudes toward teachers were a better predictor for their attitudes toward the police when compared to their attitudes toward parents.

The limited body of research that has been conducted on student perception of authority figures, in particular SRO oversight, generally focused on the SRO and school safety (McDevitt & Paniello, 2005; Santoro, Massey, & Armstrong, 2002). Other studies examined the certainty of legal sanctions (Foglia, 1997; Pogarsky, Kim, & Paternoster,

2005), social sanctions, and internalized norms (Foglia, 1997). Those studies did not examine student perception of the SRO as a deterrent to the commission of criminal acts on school campuses. The students' perception of the SRO is essential to the deterrence of crime on school campuses. Deterrence theory predicts that students are less likely to commit crimes when the threat of legal sanctions is high (Matthews & Agnew, 2008).

In conclusion, empirical research that examines the SRO program as a deterrent to criminal activity on school campuses is limited. Jackson (2002) suggested that the research that examines SRO programs should be expanded and the limitations to his study corrected. Johnson (1999) wrote the long-term impact of the SRO program warrants further evaluation. Decker (2000) reported that improved and an increased number of evaluations of school safety programs is essential for replication of positive programs.

The following section addressed the various types of school violence and crimes that occur on school campuses that have been examined in the literature. This review assisted in determining if the SRO program is needed and what types of crimes should be the focus of the SRO program.

Types of Violent and Non-Violent Campus Crimes the SRO may Deter

In order to study the deterrence effects of the SRO program, one must first identify the crimes to be included. Brown (2006) reported that official school violence data has limitations. For one, the time periods that schools report data may be different. Many schools report data for the school year (August/September through May/June) and other school data are collected on the calendar year. "The terms 'school violence' and

'school safety,' while frequently used within justice, education, and public health arenas, have yet to be commonly defined" (Small & Tetrick, 2001, p. 3). Violent and nonviolent crimes incidents are reported differently in areas across America and many incidents go unreported (Brown, 2006; Devoe, Peter, Kaufman, Miller, Noonan, Snyder, & Baum, 2004; Small & Tetrick, 2001).

School violence incidents include bomb threats, murder, rape, armed assaults, burglary, motor vehicle theft, arson, larceny, stolen property, weapons drugs, and others (Strandberg, 1999). The focus of this study included different types of crimes that occur on school campuses that were narrowed to include the most serious and prevalent violent and nonviolent crimes. One way to focus the research is to examine the crimes reported to law enforcement agencies.

Once law enforcement agencies receive the crime reports, the statistics are sent to and compiled by the FBI. The Federal Bureau of Investigation (FBI) compiles crime statistics in the Uniform Crime Reporting (UCR) Program (Uniform Crime Reporting Handbook, 2004). The FBI classifies crimes into two parts. Part I offenses are generally considered the more serious crimes. Part I offenses include criminal homicide, forcible rape, robbery, aggravated assault, burglary, larceny/theft, motor vehicle theft, and arson. Part II offenses include other assaults, forgery and counterfeiting, fraud, embezzlement, stolen property, vandalism, weapons, prostitution, sex offenses, drug abuse violations, gambling, offenses against family and children, driving under the influence, liquor laws, drunkenness, disorderly conduct vagrancy, all other offenses, suspicion, curfew and loitering laws, and runaways. The most serious (criminal homicide, rape, robbery, aggravated assault, and sexual assault) and the most common (theft, battery, weapon

possession, bullying with force, bullying without force, marijuana use and sale, cocaine use and sale, other drugs use and sale, and tobacco use and possession) types of crimes found on school campuses were included in the current study.

Snyder & Sickmund (1999) reported that during the 1996-1997 year there was an estimated 1.3 million nonfatal violent crimes (robbery, aggravated assault, and rape) at schools. During the school year 1997-1998, 53% of schools reported serious violent crimes (robbery, aggravated assault, rape, and simple assault) and of the students ages 12-18, 40 out of 1000 males and 24 out of 1000 females were victims of simple assault (Decker, 2000). In 1999-2000, 71% of public schools grades K-12 experienced at least one violent incident. There were approximately 1.5 million violent incidents in the estimated 59,000 public schools. Of those 1.5 million violent incidents only 257,000 were reported to police (U.S. Department of Education, 2004).

The most serious type of school violence is criminal homicide on a school campus. One study conducted jointly by the National Center for Education Statistics and the Bureau of Justice Statistics (Devoe et al., 2004) reported on school violence. The study determined that there were 32 school-associated violent deaths in the United States between July 1, 1999 and June 30, 2000. There were 24 homicides and eight suicides. School-aged children were victims of 16 of the homicides and six of the suicides. A study by The U.S. Department of Education stated that between July 1, 1997 and June 30, 1998 there were 60 school associated violent deaths in the United States including 47 homicides, 12 suicides, and one student killed by a law enforcement officer in the line of duty (Kaufman et al., 2000). A similar report published in the Juvenile Accountability Incentive Block Grants Program (JAIBG) Bulletin for a slightly different period of the

school year 1997-1998 showed that eight out of every one thousand students is a victim of serious violent crime while at school and there were 58 school-associated deaths including students and non-students (Decker, 2000).

Other UCR Crime Reports Part I offenses that should be included in this study are rape, sexual assault, robbery, and aggravated assault on school campuses. Students between the ages of 12 and 18 were victims of 88,000 nonfatal serious violent crimes (rape, sexual assault, robbery, and aggravated assault) in 2002. In 2002, students ages 12-14 were more likely than students ages 15-18 to be a victim of crime at school. There were seven to nine percent of students who reported they were threatened or injured with a weapon (gun, knife, or club) on school property each year (Devoe et al., 2004). Another study showed that between 1993 and 1997 approximately eight percent of students in grades nine through 12 reported being threatened or injured with a weapon (Kaufman et al., 2000). The 2005 National Youth Risk Behavior Surveillance (Eaton et al., 2006) found that in 2005 over 1,300,000 high school students were threatened or injured with a weapon at least once. Rape, sexual assault, robbery, and aggravated assault on school campuses are serious crimes that occur with less frequency compared to battery or theft, but shall be included because of their serious nature.

One of the most common crimes against a person on school campuses is battery. In the studied state, battery is defined as "actually and intentionally touching or striking another person against the will of the other, or intentionally causing bodily harm to another person" (Florida Criminal Law and Motor Vehicle Handbook, 2004). Battery is a crime of violence that may be called a physical fight or altercation that results in no permanent injuries. Snyder & Sickmund (1999) reported that during the 1996-1997 year,

37% of high school students said that they have been in one or more physical fights during the past 12 months. Another report found that 13% of students in grades nine through 12 that reported being in a fight at school (Devoe et al., 2004).

In nearly all states, possession of any weapon on school campuses is a felony that could result in arrest. In many states possession of a common pocket knife or a box cutter on a school campus is a felony that may lead to the expulsion of the student and arrest. Hawkins, Campanaro, Pitts, and Steiner (2002) completed a study of weapons in an affluent suburban school. The study surveyed 1465 students enrolled in two high schools in a largely affluent community. The results of the study revealed that 26.4% of males and 8.2% of females self reported carrying a weapon for protection or in case of a fight. The weapons carried included knives or blades (59.2%), guns (22.5%), and other types of weapons (18.3%). The 1997 Youth Risk Behavior Surveillance System reported that 9% of high school students carried a weapon to school in the past 30 days (Snyder & Sickmund, 1999). The 2005 National Youth Risk Behavior Surveillance (2006, Eaton, et. al.) surveyed high school students from all 50 states and the District of Columbia and found that over 1,000,000 students brought a weapon to school each month. Another estimate (Townley & Martinez, 1995) places the number of guns and knives brought to school daily at 100,000 and 600,000 respectively. The number of weapons on school campuses warrants inclusion in the current study.

The most common type of violent or non-violent crime that occurs on school campuses is theft or larceny. The U.S. Department of Education (Devoe et al., 2004) estimated that approximately 1.1 million thefts occurred at school. Decker (2000) reported that during the 1997-1998 school year, 64 out of 1000 males and 61 out of 1000

females were victims of theft while at school. A report published by the Office of Juvenile Justice and Delinquency Prevention estimated that in 1996 students ages 12-18 were victims of an estimated 2.1 million thefts while at school (Snyder & Sickmund, 1999). Of the studied crimes, theft is the most prevalent crime on school campuses and therefore warrants inclusion in the current study.

There are reports that the extreme violence that occurred at the Columbine High School in 1999 by Klebold and Harris may have been partially caused by bullying or that bullying may have been a contributing factor. Bullying involves the inequity of power between two or more individuals. The individual with the power utilizes that power against a weaker individual. The power may be either real or perceived and may be physical, verbal, or psychological. Crimes such as battery, vandalism, retail theft, and the use of alcohol, or drugs have been associated with bullying (Ericson, 2001).

According to the National Youth Violence Prevention Resource Center (2007), over 5.7 million youths or almost 30% are engaged in bullying activities. Those participants may be a bully, a victim of bullying, or both. Olweus (1993) reported that 60% of individuals who could be labeled as bullies in grades six through nine had at least one criminal conviction by age 24. In a later study by Olweus (2001) "some 35% to 40% of boys who were characterized as bullies in Grades 6 to 9 (ages 13 to 16) had been convicted of at least three officially registered crimes by the age of 24. In contrast, this was true of only 10% of boys who were not classified as bullies. In other words, former school bullies were four times more likely than other pupils to engage in relatively serious crime" (p. 24).

A cross-national survey authorized by the World Health Organization determined that 17% of school-aged children had been bullied sometime during the school year and for some students the bullying may occur as often as weekly (Arbor, 2003). An estimated 1.6 million students in grades six through 10 are the victim of bullying at least once a week (Nansel et al., 2001). Binns and Markow (1999) conducted a survey in which one-half of all students reported being pushed, shoved, grabbed, or slapped in or around school. Bullying victims frequently endure humiliation, insecurity, a loss of self esteem, and they may develop a fear of going to school (Ericson, 2001). The number of incidents of bullying and the crime involved justify inclusion in the current study.

Another issue school administrators deal with is students' tobacco use. Many states including the studied school district have laws making it illegal for juveniles under 18 to smoke or possess tobacco. Klebold and Harris, the Columbine shooters, were reported to have been smokers (Briggs & Blevins, 1999). According to Botvin, Griffin, Diaz, Scheier, Williams, and Epstein (2000), tobacco use by juveniles may be a gateway drug that could lead to other drugs or other destructive behavior. The 2005 National Youth Risk Behavior Surveillance stated that 23% of students smoked cigarettes on more than one day in the last 30 days and 9.4% of students had smoked cigarettes on more than 20 days in the last 30 days. The laws addressing the use of tobacco by juveniles vary from state to state. The New Jersey law penalizes sellers of tobacco to minors, but there is not penalty for juveniles for possessing tobacco. Maryland and Wisconsin penalize juveniles for possession of tobacco, but do little to the merchants that sell tobacco to minors (Carlson & Blumenfield, 2001). The studied state bans tobacco use and possession by juveniles enforceable by a civil citation. According to Ellickson, Dui, Bell,

& McGuigan, (1998), juveniles, who use tobacco, are 21 times more likely to engage in marijuana use or drink alcohol on a weekly basis and seven times more likely to engage in stealing. Juveniles, who begin to smoke at an early age, were consistently prone to experience academic problems, demonstrate signs of delinquency, and exhibit other problem behaviors (stealing, violence, and felonies).

It is estimated that there are in excess of three million violent and non-violent crimes occur annually on school campuses. One option to endeavor to deter school violence and school crime in general is the utilization of SROs (Johnson, 1999). This study examined the SRO's perceived deterrent effect on the most serious and common crimes that occur on school campuses. The serious crimes included in this research are homicide, rape, robbery, aggravated assault, and larceny/theft. The other common crimes examined are sexual assault, battery, weapon possession, bullying, drug use, drug possession, and tobacco use or possession. These crimes directly influence students' perception of safety at school and their ability to learn. The role of the SRO on school campuses may affect their ability to be a deterrent to criminal activity and a positive influence on the students' learning process.

The Role(s) of School Resource Officers

A method widely used to combat both the various types of school violence and other crimes on school campuses is the use of a SRO. Girouard (2001) wrote that the SRO program offers "an approach to improving school security and alleviating community fears" (p. 1). Johnson's (1999) research concluded that "placement of police officers in city schools has a positive effect on school violence and disciplinary

infractions" (p. 173). The SRO program is an important part of increasing school safety (Sprague & Walker, 2002). As stated earlier there are varying definitions of SROs and a variety of roles that the SRO may be assigned. The definition and roles must be established to enhance the generalizability of this research.

The U.S. Department of Justice, Office of Community Oriented Policing Services (COPS) defines several possible roles for the SRO. Those roles may include law enforcement officer, law-related educator, problem-solver, and community liaison. The SRO may teach classes in crime prevention, substance abuse awareness, and gang resistance. The SRO may monitor and assist troubled students through mentoring programs. SROs attempt to build respect and understanding between law enforcement and the school and community. In addition, the SRO works to reduce crime and develop school policies that address criminal activity. If the SRO is funded through a COPS grant, they must dedicate 75% of their time to work in and around primary and secondary schools (U.S. Department of Justice, Office of Community Oriented Policing Services, 2004).

The School Violence Resource Center (Canady, 2001) suggests that the duties of the SRO should supplement, not replace, the duties of existing school staff such as school security, teachers, and program administrators. The National Association of School Resource Officers classified the duties of the SRO into three wide-ranging areas. The first area of responsibility for the law enforcement officer is to participate in crime and delinquency prevention, serve as a positive role model, enforce laws, provide on-site crisis and emergency responses, and provide security at school functions. Second, SROs may serve as teachers to develop safety and crime prevention programs, provide

classroom instruction, and partner with programs such as DARE (Drug Abuse Resistance Education) and GREAT (Gang Resistance Education and Training). Finally, the SRO may serve as an advisor to communicate with students on topics such as rights and responsibilities; make referrals to community programs; serve as a liaison to parents, school staff, and the community; and assist in the development of school safety and crisis response plans. The results of surveys by the Center for the Prevention of School Violence (2004) suggest that SROs spend 50% of their time enforcing laws, 30% as counselors, and 20% as teachers. The ability of SROs to deter crime is directly related to the role they assume on the school campus.

As stated previously in this review, the roles of SROs vary depending on the partnership with the local school district. Above all the main purpose of the SRO is to develop a relationship with the students so that the students trust the SRO enough to talk to the SRO. The relationship is especially important when students notify the SRO that a student or students may commit a crime and that crime was deterred by the SRO. The SRO/student relationship may also help the SRO solve crimes (Mulqueen, 1999). Others believe that the most important role of the SRO would be the ability to assess, acknowledge, and diffuse conflict situations (McNicholas, 2004).

In conclusion, the widespread use of SROs, the enormous amount of public funds dedicated to the SRO program, and the little empirical research surrounding the deterrent effect that SROs have on crime on school campuses warrants examination of the SRO program. The empirical research has focused on administrators, teachers, and SROs (Finn & McDevitt, 2005; Johnson, 1999; May, Fessel, & Means, 2004; Santoro, Massey, & Armstrong, 2002), but very little research has addressed students' perception about the

deterrent effect of the SRO (Foglia, 1997; McDevitt & Paniello, 2005; Pogarsky, Kim, & Paternoster, 2005; Santoro, Massey, & Armstrong, 2002). There was only one empirical study that addressed students' perception of the deterrent effect of the SRO (Jackson, 2002) and Jackson stated that further research is needed because of limitations discussed earlier. This research examined one of the possible combinations of roles that are available to the SRO and the student's perceived deterrent effect that SROs have on crimes that occur on school campuses. A limited number of studies have concluded that SROs have a deterrent effect (Jackson, 2002; Johnson, 1999). However, the research is unclear regarding (1) whether SROs have a student perceived deterrent effect by crime type; or (2) whether SROs that have implemented the Triad approach in different school settings have a deterrent effect. This current research addressed these two wide sweeping questions.

Theoretical Framework for the Deterrent Effect of SROs

The U.S. Department of Education (2004) delineated the SRO position as one that was responsible for crime and disorder problems, crime prevention, and crime prevention education for students on school campuses. The SRO is a significant component for school administrators in providing a visible deterrence to crime on school campuses (Atkinson, 2002). The ability of a SRO to park a marked police vehicle in a highly visible location was perceived by school administrators and teachers as a deterrent to outsiders that may enter the school campus to commit a crime (Johnson, 1999).

One of the SRO's functions is crime prevention or crime deterrence. Jackson (2002) concluded that the presence of the SRO may act as a deterrent against blatant

criminal activity. "Deterrence theory is based on the simple, commonsensical idea that the threat of legal sanction deters crime" (Matthews & Agnew, 2008, p. 91). According to Woolf (1979), one theory of deterrence in cases of crime is the fear of the penalty associated with that crime. "Deterrence theory predicts that sure, swift and severe sanctions will deter crime" (Maxson, Hennigan, & Sloane, 2005, p. 506). The presence of the SRO increases the chances of sanctions being implemented by the SRO's ability to observe, report, and identify criminal activity.

The deterrence theory suggests that individuals will refrain from committing a crime if the cost of committing that crime is high. Thomas and Bishop (1984) stated that the threat or actual implementation of sanctions increases the individual's awareness of the risks associated with the crime, and he or she will decide to avoid or reduce the frequency of his or her possible participation in the criminal activity. Individuals will not commit a crime if they believe that they will be punished soon after the crime (Spohn & Holleran, 2002). Piquero and Rengert (1999) reported that criminals are affected by both the amount and probability of sanctions. Their results illustrated that criminals are less likely to commit crimes when the threat of sanctions is high. Johnson (1999) interviewed students at nine high schools and 18 middle schools in one school district. The students stated that when other students are arrested and handcuffed in front of the student population, this swift legal action acts as a deterrent for students committing crimes on school campuses.

The deterrent effect may also affect students because of the stigma of the arrest. Students may not respond negatively to the use of marijuana, but may respond negatively

[2] Some juveniles may see being arrested or being sent to juvenile detention as a badge of honor (Arredondo, 2003; Cooper, 2003).

if a student is arrested for drug crimes[2]. If a student believes that others shall react negatively because of an arrest, they will refrain from that activity because he or she fears the stigma associated with being caught (Williams & Hawkins, 1986).

Deterrence theory focuses on the procedure that a potential offender or individual uses to decide whether or not to commit a crime (Zimring & Hawkins, 1973). The belief is, as the likelihood of threatened or actual sanctions increases, the probability that individuals will commit crimes decreases. In today's society there is a common belief that deterrence is working (Pestello, 1984).

Nagin and Pogarsky (2003) state that classical deterrence theory is built on two general human motivations. Those motivations are the pursuit of pleasure and the avoidance of pain. Individuals are interested in how high the costs or potential costs are compared to the rewards they believe to receive, not only potential legal sanctions and illegal proceeds. Bachman, Paternoster, and Ward (1992) wrote that prospective offenders examine the costs and benefits of criminal actions in terms of the financial or other rewards in relation to the potential social censure or punishment.

Deterrence theorists mostly agree that deterrence is divided to two separate but generally acknowledged classifications of general and specific deterrence (Britt & Gottfredson, 2003; Freeman & Watson, 2006; Paternoster & Piquero, 1995; Piquero & Paternoster, 1998; Stafford & Warr, 1993). General deterrence is concerned with the correlation between the legal punishment (fines, imprisonment, and execution) and the public. Specifically, general deterrence believes that punishing an offender in some manner will deter others from committing the same crime. The focus is the effect the criminal activity and punishment has on other members of society. Specific deterrence

focuses on the association of legal punishment and the offender. The theory is that the experience of legal sanctions being imposed on an offender will deter that offender from committing crimes. An individuals' specific deterrence is the result of their own personal experiences. Paternoster and Piquero (1995) believed that there is a potential shortcoming with separate general and specific deterrence in that society members may be affected by the two types of deterrence.

Stafford and Warr (1993) scrutinized the division between general and specific deterrence. First, they examined general deterrence from the perspective that by definition, individuals who fall into this theory have never suffered legal punishment. Stafford and Warr (1993, p. 123) wrote that:

> there are two kinds of people who have never suffered a legal punishment: (a) those who have never committed any crime (ignoring the possibility that innocent persons can be punished) and (b) those who have committed crimes but have avoided punishment. Only the first kind of person can be said to have no direct experience with legal punishment. Although the second kind of person has not suffered a legal punishment, he or she by definition acquired experience with avoiding punishment, and that experience is likely to affect the chances of committing crimes again.

The individual's knowledge that they avoided legal sanctions on prior occasions may influence their perceptions in regard to future criminal actions by instilling the idea that he or she will avoid punishment.

Second, Stafford and Warr (1993) believed that specific deterrence neglected the possibility that one can experience a legal sanction and also have an indirect experience

through the knowledge that others have suffered legal sanctions. Individuals who are incarcerated may contact others who have committed the same offense. Therefore, those individuals have direct (incarceration) and indirect (contact with others) experience with legal sanctions. An incarcerated offender would experience specific deterrence and that offender may have associations with other offenders in jail and therefore may experience general deterrence.

The reconceptualization of deterrence theory redefines general and specific deterrence. "General deterrence refers to the deterrent effect of indirect experience with punishment and punishment avoidance and specific deterrence refers to the deterrent effect of direct experience with punishment and punishment avoidance" (Stafford & Warr, 1993, p. 127). Stafford and Warr acknowledge that individuals may be subject to both general and specific deterrence. There are members of society that have never committed a crime, never received legal sanctions, and not had any direct experience with punishment avoidance. The only option for those members is general deterrence. Offenders that have received or avoided legal sanctions may be subject to specific deterrence, general deterrence, or both.

The research that focuses on SROs as a deterrent to committing crime on school campuses among juveniles is limited. SROs may be perceived by students as a representative of the legal system who administers swift and sure legal sanctions that deter other crimes. One study examined whether sanctions deter juveniles was completed by Maxson, Hennigan, & Sloane (2005). They conducted research to determine if a civil gang injunction could deter crime among gang members. The civil injunctions are not severe, but the premise was the sure and swift implementation of the civil injunctions

would act as a deterrent because the gang members would feel they are being closely watched and more likely to be apprehended and prosecuted for other criminal violations. The study concluded that there was evidence that the short-term effects from the use of civil gang injunctions were less gang presence in the neighborhood and fewer reports of gang intimidation being documented. The presence of the officers in the neighborhoods increased the likelihood of swift sure sanctions and a deterrent effect. Along a similar line, the presence of SROs in schools may have a similar effect.

The use of SROs, police officers, and sheriff's deputies to enforce laws violated by juveniles is increasing. As stated earlier, the number of SROs in schools is rapidly growing and the role of those SROs, in many cases, is changing to one primarily of law enforcement. One county in a southeastern state used the SROs, police officers, and sheriff's deputies to enforce truancy laws. The police officers would determine if a student was truant, and then take swift action by taking the student to a truancy center for implementation of sanctions. The intervention appeared to have a positive effect by decreasing truancy in the 30 days following the implementation of the truancy unit. The long-term effects were less positive. The research concluded that without data on how the student perceived the intervention, it cannot be determined if the truancy intervention is a good test of the deterrence hypothesis (Bazemore, Stinchcomb, & Leip, 2004).

The current research examined if the students' perceive the intervention of a SRO as a deterrent to specific crime types and overall crime on school campuses. It is believed among law enforcement and school systems that the presence of SROs on school campuses deters crime. Limited research exists on staff and faculty perceptions of the SRO deterrent effect and even less research exists on the students' perceptions

(Brown & Benedict, 2002). Only one study examined the student's perceived deterrent effect that SROs have on crime (Jackson, 2002). This study expands previous research by examining a school system in which the students have had long-term exposure to a SRO. In addition, one specific role for the SRO, the triad approach, was examined.

Research Question and Hypotheses

The two research questions to be investigated are 1) Do students perceive that the presence of a SRO is a deterrent to crime on school campuses? 2) Does the student's age, race, gender, class standing, income level, school attended, past crimes, exposure to a SRO, friends' crime history, and family crime history influence the students' perception of the SRO as a deterrent to crime? These research questions are examined by exploring some of the most common and serious crimes committed by students or against students on a school campus.

An individuals' demographics influence perceptions about police (Lord, Kuhns, & Friday, 2009). Studies have concluded that an individual's perception of police cannot be predicted by a single variable (Reisig & Parks, 2000). According to Brown & Benedict (2002), there is not an agreement among researchers as to what combination of variables can explain the variance in an individual's perception of police. In addition, they believed that researchers should include a combination of theoretically relevant variables for perception of police research.

The literature addressing the students' perception of the SRO is limited. As stated earlier, Jackson (2002) studied students' perception of SROs. Jackson explored the effect of one demographic variable only, gender. There was not a direction specified in the

literature. Gender was not found to be statistically relevant to the analysis. Jackson's research concluded that there was limited student perceived deterrent effect of the SRO for the crimes of battery and assault in general. Other studies focused on perception of school safety (Santoro, Massey, & Armstrong, 2002) and school administrators perception of the SRO (May, Fessel, & Means, 2004).

There is no research to date that explores the relevance of demographic variables and the students' perception of the SRO as a deterrent the studied crimes. Research was available that explored the individuals' perceptions of the police. One of the primary functions of the SRO was to serve as a law enforcement officer a large majority of the time when on school campuses. There is reason to believe that based on the literature that demographic variables might be important for two reasons. Perception of police in general states a series of expected relationships between demographic factors and perceptions about the police. Second, if it is determined that demographic factors matter, this is important from the standpoint of understanding how to best target audiences and how to best utilize SRO types.

A number of demographic characteristics are worthy of consideration when trying to understand students' perceptions about the deterrent effect of SROs. Research has shown that age is an important consideration when examining individuals' perceptions of the police (Vogel & Meeker, 2001). The relationship believed to exist demonstrates that younger individuals are more likely to have negative perceptions of police as compared to older individuals (Brown & Benedict, 2002; Jesilow, Meyer, & Namazzi, 1995; Schafer, Huebner, & Bynum, 2003; Vogel & Meeker, 2001).

Race is an important and crucial variable when studying attitudes of individuals toward police (Schafer, Huebner, & Bynum, 2003; Skogan, 2006). Lurigio, Greenleaf, and Flexon (2009) reported that attitudes toward the police may differ among different races. Brown and Benedict (2002) found that students' perception police vary by race. Studies have shown that Caucasians generally perceive police more positive than minorities. Generally Hispanics view the police less favorably than Caucasians and African Americans have the lowest approval rating (Cao, Frank, & Cullen, 1996; Frank, Smith, & Novak, 2005). Minorities perceive the police more negatively than Caucasians (Mbuba, 2010).

Another common demographic included in this research was gender. Lord, Kuhns, and Friday (2009) reported that gender an important factor to consider when examining perception of police. Their research stated that depending on the study that race and age may be more influential, but depending on the individuals' police experiences gender is an important factor to consider. Vogel and Meeker (2001) concluded that an individuals' perception of crime is influenced by his or her gender. Cao, Frank, and Cullen (1996) found that gender was directly related to an individuals' confidence in the police. Jesilow, Meyer, and Namazzi (1995) concluded that gender did not influence the public's perception of the police in their research. According to Mbuba (2010), females have a more positive attitude towards police compared to males.

The class standing variable studied the effect of the class standing or grade level on the participant's beliefs. The class standing variable is similar to age in that as a student is closer to graduation and is becoming older, the student's perception may differ. The class standing variable was included to examine perceptions across grade levels that

may contain different age groups. The school variable determined if the school attended and the specific SRO influences the participant's views. Individual SRO's deterrent effect may differ among students at different schools. This variable examined this relationship and the SRO's deterrent effect on individual crime concepts and crime overall.

The regression analysis included the independent variable, income level, to examine if the students' family socioeconomic status influences the students' perception of the SRO as a crime deterrent. Brown and Benedict (2002) summarized the results of more than 100 articles and found that many researchers reported that socioeconomic status influences the individual's perception of the police. Although the perceptions of police may vary depending on the perceiver's race, the research revealed that lower socioeconomic individuals have a more negative perception of police compared to those with higher socioeconomic levels. Income level was a statistically significant independent variable when examining a citizens' confidence in the police (Cao, Frank, & Cullen, 1996).

Based on the aforementioned relationships between demographics and perception of polices, it is logical to make some assumptions about how these variables might affect the students' perception of the SROs. Younger students are more likely to have negative perceptions about SROs. Therefore, it is assumed that older students are more likely to perceive the SRO is a deterrent to crime as compared to younger students. Caucasian students perceive the SRO more positively while minorities' perceptions are more negative. Similarly, minorities are less likely to perceive the SRO as a deterrent to crime compared to non-minorities. SROs are more likely to be perceived in a more positive

manner by female students as compared to males. Correspondingly, female students are more likely to perceive the SRO as a deterrent to crime on school campuses as compared to male students. Students beginning approximately in grade eight should begin to have a more positive perception of the SRO as the grades increase. Again, it is logical to assume that older students are more likely to perceive the SRO as a deterrent to crime as compared to younger students. In general, lower socioeconomic groups have a more negative perception of the SRO. Finally, it is assumed that lower socioeconomic students are more likely to disagree that in their perception the SRO is a deterrent to crime on school campuses.

The students' personal attributes must be considered because those attributes are directly related to extent that they have contacts with police (Skogan, 2006). The independent variable past crimes takes into consideration those participants that have a prior criminal history. Students involved in delinquent acts may have negative perceptions toward the police (Brown & Benedict, 2002). An individual's positive or negative contacts with the police has a relationship to their perceptions of the police (Lord, Kuhns, & Friday, 2009; Schafer, Huebner, & Bynum, 2003). Negative perception of police has been shown to be related to individuals who have been ticketed or arrested (Jesilow, Meyer, & Namazzi, 1995).

The analysis included the independent variable, friends' crime history, to examine the influence that a friend's criminal history may have on the participant's views of the SRO. Individuals, who have not had police contact, may base their perception of the police from their peers perceptions (Schafer, Huebner, & Bynum, 2003). Juveniles are influenced by their friends' and other students' peer pressure (Smith, McCall, & McCall,

2006). Peer pressure may be a major influence on the students' attitudes (Megens & Weerman, 2010). Students involved in delinquent acts may have negative perceptions toward the police (Brown & Benedict, 2002). The students peers' negative perception may negatively influence the students' perceptions about the SRO.

The final personal attribute studied was the students' family crime history variable. Students who have family members incarcerated may lead to family disruption and a higher rate of juvenile delinquency. Family members who have a negative contact with police may influence the students' perception of the police and specifically the SRO (Sampson & Wilson, 1995).

Based on the abovementioned relationships between student attributes and perception of police, it is logical to make some assumptions about how these variables might affect the students' perception of the SROs. A student involved in delinquent acts is more likely to perceive the SRO in a negative manner. Therefore, students with a criminal history are more likely to disagree that the SRO is a deterrent to crime on school campuses. The SRO is more likely to be perceived negatively by a student who has friends that have been in trouble with the law. It can be assumed that students who have friends that have been in trouble with the law are more likely to disagree that the SRO is a deterrent to crime on school campuses. Finally, students who have family members who have been in trouble with the law are more likely have a negative perception of the SRO and are more likely to disagree that the SRO is a deterrent to crime on school campuses.

Jackson (2002) suggested that future research should be conducted in schools that have had SROs for more than one year. Hopkins, Hewstone, & Hantzi (1992) concluded

that students who attended a school that has a SRO will perceive the police in a more favorable opinion compared to students who attended schools that do not have SROs. The SRO exposure variable verified that the survey recipient had the required length of exposure to a SRO and did not recently move into the school district from a school that did not have a SRO. SRO exposure examined the effect that the length of time the students were exposed to the SRO had on the students' perception of the SRO as a deterrent to the dependent variables.

The hypotheses were divided into the FBI Part I offenses (homicide, rape, robbery, aggravated assault, and theft), FBI Part II offenses (battery, weapon possession, bullying with and without force, sexual assault, marijuana use and sale, cocaine use and sale, and other drug use and sale), other offenses (tobacco use and possession and truancy), and overall crime. The following hypotheses were examined:

FBI Part I Offenses (Homicide, Rape, Robbery, Aggravated Assault, and Theft)

H_1: Students' perception of the SRO as a deterrent to the FBI Part I offenses on school campuses is influenced by the student demographics and personal attributes in the following manner:

a) Age – older students are more likely to perceive the SROs as a deterrent to FBI Part I offenses as compared to younger students
b) Race – minority students are more likely not to perceive the SROs as a deterrent to FBI Part I offenses as compared to non-minorities
c) Gender – female students are more likely to perceive the SROs as a deterrent to FBI Part I offenses as compared to male students

d) Class standing – high school students in lower grades are more likely not to perceive the SROs as a deterrent to FBI Part I offenses as compared to students in higher grades

e) Income level – lower socioeconomic students are more likely not to perceive the SROs as a deterrent to FBI Part I offenses as compared to higher socioeconomic students

f) School attended – a variable for school attended with no direction

g) Past crimes – students involved in delinquent acts are more likely not to perceive the SROs as a deterrent to FBI Part I offenses as compared to students who do not have a criminal history.

h) Exposures to a SRO – students with longer exposure are more likely to perceive the SRO as a deterrent to FBI Part I offenses as compared to students less exposure.

i) Friends' crime history – students with delinquent friends are less likely to perceive the SRO as a deterrent to FBI Part I offenses as compared to students without delinquent friends.

j) Family crime history – students who have family members that have had negative contact with the police are less likely to perceive the SRO as a deterrent to FBI Part I offenses as compared to students without family members with a crime history.

FBI Part II offenses (Battery, Weapon Possession, Bullying With and Without Force, Sexual Assault, Marijuana Use and Sale, Cocaine Use and Sale, and Other Drug Use and Sale)

H_2: Students' perception of the SRO as a deterrent to the FBI Part II offenses on school campuses is influenced by the student demographics and personal attributes in the following manner:

a) Age – older students are more likely to perceive the SROs as a deterrent to FBI Part II offenses as compared to younger students
b) Race – minority students are more likely not to perceive the SROs as a deterrent to FBI Part II offenses as compared to non-minorities
c) Gender – female students are more likely to perceive the SROs as a deterrent to FBI Part II offenses as compared to male students
d) Class standing – high school students in lower grades are more likely not to perceive the SROs as a deterrent to FBI Part II offenses as compared to students in higher grades
e) Income level – lower socioeconomic students are more likely not to perceive the SROs as a deterrent to FBI Part II offenses as compared to higher socioeconomic students
f) School attended – a variable for school attended with no direction
g) Past crimes – students involved in delinquent acts are more likely not to perceive the SROs as a deterrent to FBI Part II offenses as compared to students who do not have a criminal history.
h) Exposures to a SRO – students with longer exposure are more likely to perceive the SRO as a deterrent to FBI Part II offenses as compared to students less exposure.

i) Friends' crime history – students with delinquent friends are less likely to perceive the SRO as a deterrent to FBI Part II offenses as compared to students without delinquent friends.

j) Family crime history – students who have family members that have had negative contact with the police are less likely to perceive the SRO as a deterrent to FBI Part II offenses as compared to students without family members with a crime history.

Other Offenses (Tobacco Use or Possession and Truancy)

H_3: Students' perception of the SRO as a deterrent to the other offenses on school campuses is influenced by the student demographics and personal attributes in the following manner:

a) Age – older students are more likely to perceive the SROs as a deterrent to other offenses as compared to younger students

b) Race – minority students are more likely not to perceive the SROs as a deterrent to other offenses as compared to non-minorities

c) Gender – female students are more likely to perceive the SROs as a deterrent to other offenses as compared to male students

d) Class standing – high school students in lower grades are more likely not to perceive the SROs as a deterrent to other offenses as compared to students in higher grades

e) Income level – lower socioeconomic students are more likely not to perceive the SROs as a deterrent to other offenses as compared to higher socioeconomic students

f) School attended – a variable for school attended with no direction

g) Past crimes – students involved in delinquent acts are more likely not to perceive the SROs as a deterrent to other offenses as compared to students who do not have a criminal history.

h) Exposures to a SRO – students with longer exposure are more likely to perceive the SRO as a deterrent to other offenses as compared to students less exposure.

i) Friends' crime history – students with delinquent friends are less likely to perceive the SRO as a deterrent to other offenses as compared to students without delinquent friends.

j) Family crime history – students who have family members that have had negative contact with the police are less likely to perceive the SRO as a deterrent to other offenses as compared to students without family members with a crime history.

Overall Crime

H_4: Students' perception of the SRO as a deterrent to the overall crime on school campuses is influenced by the student demographics and personal attributes in the following manner:

a) Age – older students are more likely to perceive the SROs as a deterrent to overall crime as compared to younger students

b) Race – minority students are more likely not to perceive the SROs as a deterrent to overall crime as compared to non-minorities

c) Gender – female students are more likely to perceive the SROs as a deterrent to overall crime as compared to male students

d) Class standing – high school students in lower grades are more likely not to perceive the SROs as a deterrent to overall crime as compared to students in higher grades

e) Income level – lower socioeconomic students are more likely not to perceive the SROs as a deterrent to overall crime as compared to higher socioeconomic students

f) School attended – a variable for school attended with no direction

g) Past crimes – students involved in delinquent acts are more likely not to perceive the SROs as a deterrent to overall crime as compared to students who do not have a criminal history.

h) Exposures to a SRO – students with longer exposure are more likely to perceive the SRO as a deterrent to overall crime as compared to students less exposure.

i) Friends' crime history – students with delinquent friends are less likely to perceive the SRO as a deterrent to overall crime as compared to students without delinquent friends.

j) Family crime history – students who have family members that have had negative contact with the police are less likely to perceive the SRO as a deterrent to overall crime as compared to students without family members with a crime history.

CHAPTER THREE: DATA AND METHODOLOGY

Introduction

School districts have increased the use of the SRO to increase the safety of the students and faculty on school campuses. The number of resources dedicated to the SRO program warrants further examination to determine their effectiveness. One way to examine the effectiveness is to determine if students perceive the SRO as a crime deterrent. Students who believe the SRO is a deterrent are less likely to commit a crime if punishment is likely (Spohn & Holleran, 2002).

The purpose of this study was to examine the SRO deterrent effect of school campus crime as perceived by high school students. The question explored in this study was whether the SROs' presence on school campuses is a crime deterrent to students.

This research examined traditional high school students in one school district. Traditional high schools in the studied district contain grades nine through 12 with a designated attendance zone as the main admission requirement. The school district, through an agreement with local law enforcement, places a SRO in each traditional school in the district. At the time of this research, every traditional school in the school district had a minimum of one SRO assigned to each school. A survey captured the students' perception of the SRO as a deterrent to crime on schools campuses. The survey was given once to each student who agreed to participate in the study. It should be noted that it is common to collect data in surveys that is not used in the study, but collected for

future use. The Students' Perception of the School Resource Officer survey sections I, II, and IV were not used in this study.

The data and methodology section is divided into the following main sections: Research Site (Research Site Background and Research Site Limitations); Pilot Survey Study; Sample and Sample Size Determination Procedure; Survey Implementation (Survey Response Rate and Sample Demographics Results); Variables (Variable Coding); Variable Recoding; and Summary of Methods. Each of the sections explains and defines the methods used, and the variables associated with those methods. A pilot study was conducted to test the survey instrument.

Research Site

The research site studied included six high schools in one school district. Survey research is frequently used to obtain data in social sciences (Babbie, 987). The data examined in this study were obtained from a survey given to a sample of high school students from six high schools in one school district. The survey was approved for use by the University of Central Florida Institutional Review Board (see Appendixes D and E). The survey was a cross-sectional sample or given at a point in time. The participants were drawn from a sampling of students in a mid-sized county in the southeastern section of the United States. The population or total of students for all grades in the district was over 50,000.

Jackson (2002) studied student perceptions in four high schools that had a SRO for less than one year. He stated that further research should be conducted at schools that have an established SRO program for a longer time period. This research builds on

Jackson's prior work by selecting public high schools where the SRO program had been established five years or more.

The schools district was comprised of seven traditional high schools. Six of the seven traditional high schools in the school district participated in the survey. The one high school that was excluded had been open for only one year at the time of the survey and students may not have the required long-term exposure to a SRO. Magnet schools and alternative education high schools were not included in this research because the student population was too small or the schools may not have had a full-time SRO. Magnet and alternative education schools have admission requirements that may have skewed the data.

According to Foglia (1997), in perceptual deterrence literature, the data is obtained by asking individuals questions about their perceptions of likelihood of arrest and punishment. In this study the data were collected in 2008 by conducting a self-administered questionnaire survey (see Appendix A). A letter was sent to the school system's district office to obtain permission from the school superintendent to meet with the individual school principals (Appendix B). The deputy superintendent gave approval to conduct the survey at the requested high schools (Appendix C). A meeting was held with each individual principal and each gave verbal permission to conduct the survey at his or her school.

Research Site Background

The research site maintains computer records of all criminal activity reported to the school administration. As with all self reported data, it is only as good at the

individuals who report the data. The studied school district reports crime data in several categories some of which differ from the studied variables. The dependent variables or type of crimes for this study used the legal definition. The district background data were placed into the closest corresponding variable representation in this study.

Schools one, two, three, four, five, six, and the overall school district did not report any homicides, rapes, robberies, or tobacco use by a person under age 18 on school grounds and only one incident of aggravated assault for the studied year (2007-2008). The school district does not delineate between the different types of drug-related crimes. The school district reporting system's drug categories are drug use or possession and drug sale or distribution. This research examined the drug-related crimes in more detail by exploring the student's perception of the SRO's deterrent effect on six categories for drugs; marijuana use, marijuana sale, cocaine use, cocaine sale, other drug use, and other drug sale.

The research site demarcates truancy. The school district divides this study's truancy variable into three categories, skipping school, skipping class, and leaving school grounds. These categories are combined into one category of truancy.

The studied variable battery was reported differently by the school district. The school district divided battery into the four categories of minor battery, battery, and two fighting classifications. The legal definition for battery encompasses the four categories. Therefore, this study will examine those as one variable. The schools' self reported data is shown in Table 1.

The most prevalent incident that occurred on the school campuses was truancy with 1342 self reported occurrences. Battery and assault were the next most prevalent

incidents with 236 and 153 occurrences. Theft, sexual offenses, weapon possession, bullying, assault, drug possession, drug sale, and tobacco possession categories contained 73, 36, 25, 70, 66, 7, and 57 self reported incidents respectively. The district total and individual school statistics are displayed in Table 1.

Table 1: Self Reported Research Site Crime Data 2007-2008 School Year

Location	School 1	School 2	School 3	School 4	School 5	School 6	District Total
Aggravated Assault	1	0	0	0	0	0	1
Theft	10	15	8	12	5	23	73
Sexual Offenses	1	9	4	14	1	7	36
Battery	59	38	42	17	37	43	236
Possession of Weapon	2	4	2	3	2	12	25
Bullying	7	12	16	20	6	9	70
Assault	9	39	22	51	13	19	153
Drug Possession	10	13	8	3	14	18	66
Drug Sale	1	2	0	1	0	3	7
Tobacco Possession	5	3	3	4	3	39	57
Truancy	188	282	465	121	16	270	1342

Research Site Limitations

The studied research site has several limitations to the self reported school crime data. According to Walsh and Hemmens (2008), the school data only records reported crimes. The data does not account for crimes that occur on school campuses, but goes unreported to school or law enforcement officials. As stated earlier, the school district categorizes incidents that occur on school campuses differently from the UCR. These differences may affect student survey responses.

The school district used for this current study has strict requirements on survey procedures. One of the requirements is that the principal at each school has authority to determine if the research is allowed to be conducted, who will administer the survey, and who could participate in the survey. These restrictions had an impact on the sample as discussed in the sample section. Jackson (2002) also encountered sample restrictions with the school administrators allowing only juniors and seniors to participate. In addition, Jackson desired the survey participants complete the survey at two different times. The administrators would not allow Jackson access to the students' names, and it could not be determined if the same students completed the survey both times.

Pilot Survey Study

According to Smith (2002), pilot studies are important to ensure that the survey procedures and data collection will work. The survey must be acceptable to the participants and not contain sensitive questions that may go unanswered and result in missing data. The pilot study determines if the survey will capture valid, reliable, and complete information for the study. Problems with a survey instrument are usually detected during a pilot study.

Prior to the survey implementation at the studied schools, a pilot study was conducted. The pilot study was conducted at a school that was not participating in the study, but was in the same school district and had a full-time SRO. The school was a small magnet high school in the same school district that was excluded from the study because of it size and admission requirements. Data obtained from this school could have skewed the results because students at this school may be forced to return to their

traditional school for minor offenses such as excessive truancy. Therefore, students at this school may perceive the SRO and school administration differently.

The pilot study was used to determine if the students could understand the questions, determine the average length for the students to complete the survey, evaluate any potential sample issues, and evaluate any teacher or student questions. Two classrooms were selected by the principal to be surveyed. A convenience sample was used to pick the classes to be included in the pilot study. The principal of the school selected the classrooms based on which two classrooms had the best distribution of students in grades nine through 12 available that would be a good representation of the school's demographic composition.

Packets were given to the two classroom teachers participating in the pilot study by the principal. Included in the packets were the Teacher Instructions, Distribution Form, Parental Informed Consent, Student Assent Form, and the Survey of Students' Perception of the School Resource Officer (Appendixes J, K, F,G, and A respectively). The packets were the same as the ones distributed to the schools participating in the main research project with the exception that on the Distribution Form an additional line was added that included the survey start time and end time. The Teacher Instructions were modified to include an estimated survey completion time to allow the students ample time to complete the survey.

The packets were distributed to the teachers on May 2, 2008. The Parental Informed Consent and Survey were distributed to the students on May 5, 2008. The deadline to return the Parental Informed Consent was given as May 9, 2008. The Survey of Students' Perception of the School Resource Officer was given to the students on May

9, 2008. The teachers gave the students an unlimited amount of time to complete the survey. Students in classroom one completed the survey in 10 minutes while the second classroom took longer at 20 minutes. The statement that "the survey should take 20 minutes or less to complete" was added to the Teacher Instructions.

The Survey of Students' Perception of the School Resource Officer and Parental Informed Consent forms were distributed to 49 students. The Parental Informed Consent forms were returned to their teachers by 31 students of the original 49 or approximately 63%. Only 21 students received permission from their parent or guardian to participate. One student received permission and chose not to complete the survey. Twenty students completed the Survey of Students' Perception of the School Resource Officer for an approximate response rate of 41%.

Demographic data for the sample of the students surveyed in pilot study school were compared to the school's population demographics. A Chi-Square goodness-of-fit test was conducted to determine if the pilot school surveyed sample distribution fits the school's population. The school's gender population was 49.3% male and 50.7% female. The gender of the students surveyed was 40.0% male and 60.0% female. The pilot school's gender was a good fit for the population with a chi-square value of 0.67 ($df = 1$, $p < 0.05$). The school's racial population was 10.8% African-American, 69.5% Hispanic/Chicano/Latino, 11.7% Caucasian, 3.7% Asian-American, 0.1% Native-American, and 4.2% other. The school's surveyed racial distribution was 0.0% African-American, 75.0% Hispanic/Chicano/Latino, 5.0% Caucasian, 0.0% Asian-American, 5.0% Native-American, and 15.0% other. The racial composition was not a good fit for the population with a chi-square value of 25.19 ($df = 5$, $p > 0.05$). The school's class

standing population was 26.7% freshman, 25.2% sophomore, 23.7% junior, and 24.4% senior. The sample demographic distribution was 35.0% freshman, 30.0% sophomore, 30.0% junior, and 5.0% senior. The survey sample class standing was a good fit for the population with a chi-square value of 4.06 ($df = 3$, $p < 0.05$). The average number of years that the respondents were exposed to a SRO was 4.0 years. The average number of years was lower than the target of 5.0 years, but was acceptable for the pilot study.

A discussion was conducted with the teachers on May 15, 2008 at their school to evaluate the Teacher Instructions. One suggestion was that the instructions need to explain to the teacher and the students that the Survey of Students' Perception of the School Resource Officer and the Parental Informed Consent form are to be sent home together. A second suggestion was offered to allow parents the option of keeping the survey. Both of these instructions were incorporated into the Teacher Instructions.

A meeting was held with the students in the classrooms who were given the Survey of Students' Perception of the School Resource Officer. The majority of the students stated that they understood the instructions, and the questions were easy to follow. Three students were confused with the instructions. Those students stated that if the teacher were to review the instructions before the survey was completed that would help clarify the instructions. Those students were allowed to look at their survey and stated that they answered the questions in section 1 incorrectly. This suggestion was incorporated into the teacher instructions.

Sample

The original procedure involved selecting the classrooms randomly to participate in the research. After final approval from the school district was obtained, it was learned that the principals at each school would not agree to this procedure. According to Gassman, Nowicke, and Jun (2010) and Ingels et al. (2007) an accepted method of surveying is to use a coordinator to facilitate the survey implementation. Once the schools participating in the study were agreed upon, a coordinator for each school was selected. A meeting was conducted by this researcher with the principal at each participating high school. During that meeting, the principals at each school advised that they were serving as the coordinator. In this school district it is common for the principals to serve in this capacity. The coordinator was responsible for the supervision of the distribution and collection of the survey packets that included the surveys and instructions at each school.

A second meeting was conducted with each principal from each of the selected high schools. A review of the procedures for the surveys was discussed including the instructions and number of survey packets. Each principal at the selected high schools confirmed again their participation in the research, and they would be serving as the coordinator for their respective schools. A mutually agreeable date was set for the delivery of the survey packets and the timetable for the surveys was set. The goal was to have the surveys completed during a two-week period.

Participants were at least in the ninth grade, but no higher than twelfth grade. The participants were selected using a convenience sample by selecting classes. The classes that were selected by the principal were from the classes offered at the time of the survey.

The principal was asked to select classes that would be representative of the demographic composition of the school and not select based on students' discipline record or academic level. Ultimately, the principal had the final decision on what classes were selected because of school-based management in the school district that empowers principals with final authority at his or her school. This was the main reason a convenience sample was used. The names of each school and any identifying characteristics are omitted from this study. The schools were referred to as School One, Two, Three, Four, Five, and Six.

Sample Size Determination Procedure and Results

According to Lenth (2006) ensuring the sample is adequate to produce a statistically significant result is important in research planning. Power is dependent on the size of the sample obtained from the population. A small sample size that may produce low power may produce non-significant results (Pallant, 2005). The power for a given sample size can be determined by using the statistical power analysis program nQuery Advisor® (Statistical Solutions, Inc.).

nQuery Advisor determined statistical power for sample. A power of 0.80 or greater is high power (Pallant, 2005; Spatz, 2001). In this study with a significance level of 0.05, odds ratio of 0.103, 512 student surveys produced a statistical power of 0.99 out of one. The sample is of adequate size to produce statistically significant results. There were 569 surveys included in this study. However, only 512 surveys were complete and could be included in the regression. The remaining surveys were excluded from the power calculation because of missing or incomplete data.

Tabachnick and Fidell (2001, p. 117) offer another option for calculating the minimum sample size for a regression. They offer the formula of the sample size (N) must be greater than 50 plus eight times the number (m) of independent variables ($N > 50 + 8m$). As stated above, in this study the sample size was 569 but only 512 surveys were complete. Again the complete surveys figure was used for the sample size calculation. The number of complete surveys (512) was greater than $50 + 8*10$ or 130. The sample was large enough to detect the statistically significant relationship in the study.

The population and demographic information were obtained as close to the time the survey was given as possible. The populations for schools one, two, three, four, five, and six were 1683, 1787, 2210, 2431, 1414, and 1896 students respectively. The total students for the district high school population was 11,421.

Survey Implementation

After the pilot study survey results were incorporated into the teacher instructions, the principal at each participating high school was given 10 survey packets and one packet containing extra surveys, forms, and instructions (see Appendixes A, F, G, H, and I). The principal distributed the packets to the selected teachers. The students were given verbal instructions by the teacher and provided an explanation of the purpose of the study. Incomplete surveys were examined to determine if any of the data could be used in the analysis. If it were determined that the data were unusable the responses were excluded from the analysis.

Each participant was given the survey and the Parental Informed Consent Form (Appendix F). It was explained to the students that participation is completely voluntary

(see instruction page Appendix A). The students were instructed to take the survey and Parental Informed Consent Form home to their parents or guardians. The students were instructed to return the Parental Informed Consent to their teacher. If the students returned the Parental Informed Consent Form, he or she would be given a Student Assent Form (Appendix G) for written student participation. Students who completed the Student Assent Form and returned the Parental Informed Consent Form would then participate in the survey and be included in the sample.

The sample was examined to determine if the demographics of the students are representative of the total demographics of students in the school system. This was completed to ensure that the sample was representative of the population. The sample students' race, gender, and class standing were compared.

Survey Response Rate

The generally accepted rule for survey response rates is that a 50% response rate is adequate for analysis, a 60% response rate is good, and a 70% rate is very good (Babbie, 2007; Babbie, 1990). A low response rate could affect the results of the survey because the individuals not participating in the survey may differ from participants in ways other than just motivation to complete the survey (Babbie, 2007; Babbie, 1990). The survey response rate varied greatly from school to school and teacher to teacher (See Table 2). School One distributed 253 surveys and received 166 completed surveys for a response rate of 65.6%. The student response rate by teacher for School One varied from a low of 30.4% to a high of 86.7%. School Two distributed 209 surveys and received 142 completed surveys for a response rate of 67.9%. The student response rate by

teacher for School Two varied from a low of 40.0% to a high of 91.3%. School Three distributed 118 surveys and received 48 completed surveys for a response rate of 40.6%. The student response rate by teacher for School Three varied from a low of 34.5% to a high of 55.0%. School Four distributed 156 surveys and received 101 completed surveys for a response rate of 64.7%. The student response rate by teacher for School Four varied from a low of 28.0% to a high of 100.0%. School Four had one teacher receive the packet, but refused to participate. School Four's principal collected the survey packet and assigned another teacher who completed the distribution. School Five distributed 84 surveys and received 66 completed surveys for a response rate of 78.6%. The student response rate by teacher for School Five varied from a low of 33.3% to a high of 95.8%. School Six distributed 100 surveys and received 46 completed surveys for a response rate of 46.0%. The student response rate by teacher for School Six varied from a low of 16.7% to a high of 70.0%. There was clearly variability within the response rate of the six schools where the students were surveyed. The school response rate ranged from a low of 41% to a high of 79%. There were a total of 569 useable surveys returned from the 920 surveys distributed for total student response rate of 61.85%.

The student response rate could be affected by several factors. Student absenteeism could negatively affect student response rate. Students on field trips scheduled the same day as the students were surveyed would not have an opportunity to complete the survey. The student may have conflicting activities during the survey time that could include activities in other classrooms, school discipline, or other school functions. Along the same line, truant students may have missed the survey time. There were parents who returned a signed Parental Informed Consent form with a denial of

participation. The amount of support from teachers or administrators could inversely affect the response rate (Wilcox & Clayton, 2001).

Table 2: Sample Response Rates

School	Teacher	Distributed	Completed	Percent
One	One	60	35	58.33
One	Two	25	17	68.00
One	Three	25	19	76.00
One	Four	23	7	30.43
One	Five	30	17	56.67
One	Six	30	21	70.00
One	Seven	30	24	80.00
One	Eight	30	26	86.67
Total		253	166	65.61
Two	One	23	21	91.30
Two	Two	30	12	40.00
Two	Three	28	15	53.57
Two	Four	18	14	77.78
Two	Five	19	16	84.21
Two	Six	21	17	80.95
Two	Seven	23	18	78.26
Two	Eight	21	16	76.19
Two	Nine	26	13	50.00
Total		209	142	67.94
Three	One	29	10	34.48
Three	Two	27	10	37.04
Three	Three	20	7	35.00
Three	Four	22	10	45.45
Three	Five	20	11	55.00
Total		118	48	40.68
Four	One	25	7	28.00
Four	Two	34	34	100.0
Four	Three	25	15	60.00
Four	Four	27	20	74.07
Four	Five	21	11	52.38
Four	Six	24	14	58.33
Total		156	101	64.74
Five	One	24	8	33.33
Five	Two	24	13	54.17

School	Teacher	Distributed	Completed	Percent
Five	Two	17	16	94.12
Five	Two	19	14	73.68
Five	Two	24	23	95.83
Total		84	66	78.57
Six	One	30	21	70.00
Six	Two	30	5	16.67
Six	Three	20	9	45.00
Six	Four	20	11	55.00
Total		100	46	46.00
District	Total	920	569	61.85

Sample Demographics Results

The Survey of Students' Perception of the School Resource Officer contained a demographic section. It is important that the demographics of the students surveyed reflect the demographics for each school participating in the survey. The demographics for each participating school were acquired from the school district. It should be noted that the demographics for each school change by very small percentages daily because of student migration in and out of each school. The demographics were obtained as close to the survey distribution time as possible.

The sample consisted of 569 students at six traditional high schools in one school district. The students were in grades nine through 12. The age range was 13 through 19 years with the mean of 16.16 (SD = 1.184).

Each sample demographics were compared to the population demographics with the chi-square statistical method to determine if the observed sample is representative of or "fits" the study population (Spatz, 2001). Chi-square tests were used to compare observed and expected or theoretical frequency distributions at large. Samples

representative of the population are easier to generalize to other similar populations. A larger chi-square value is required at the same time as the degrees of freedom increase to reject the null hypothesis that the data fit the expected data (Spatz, 2001). The test statistic was compared to a critical value in the chi-square table and a good fit produces a $p < .05$. The variables compared were race, class standing, and gender for each school and for the school district. The only demographic variable that was not available from the school district population was age. The school district does not collect age data by class; however age is an important variable and will be included in this study.

Demographic data for the students surveyed in School One were compared to the school's population demographics (See Appendix M, Table 37). A chi-square goodness-of-fit test was conducted to determine if School One's surveyed sample distribution fits the school's population. The school's gender population was 48.7% male and 51.3% female. The gender of the students surveyed was 39.2% male and 60.2% female. School One's gender was not a good fit for the population with a chi-square value of 5.47 ($df = 1$, $p > 0.05$). The school's racial population was 5.5% African-American, 45.7% Hispanic/Chicano/Latino, 40.4% Caucasian, 3.4% Asian-American, 0.5% Native-American, and 4.5% other. The school's surveyed sample racial distribution was 4.2% African-American, 27.1% Hispanic/Chicano/Latino, 51.8% Caucasian, 7.8% Asian-American, 1.8% Native-American, and 6.0% other. The racial composition was not a good fit for the population with a chi-square value of 29.45 ($df = 5$, $p > 0.05$). The school's class standing population was 27.4% freshman, 27.4% sophomore, 24.2% junior, and 20.9% senior. The sample demographic distribution was 17.5% freshman, 22.9% sophomore, 27.1% junior, and 32.5% senior. The survey sample class standing

was not a good fit for the population with a chi-square value of 16.58 (df = 3, p> 0.05). The average number of years that the respondents were exposed to a SRO was 6.0 years.

Demographic data for the students surveyed in School Two were compared to the school's population demographics (See Appendix M, Table 38). A chi-square goodness-of-fit test was conducted to determine if the School Two's surveyed sample distribution fits the school's population. The school's gender population was 51.1% male and 48.9% female. The gender of the students surveyed was 39.1% male and 60.9% female. School Two's gender was not a good fit for the population with a chi-square value of 7.40 (df = 1, p> 0.05). The school's racial population was 5.2% African-American, 34.8% Hispanic/Chicano/Latino, 53.9% Caucasian, 1.8% Asian-American, 0.2% Native-American, and 4.0% other. The school's surveyed sample racial distribution was 7.0% African-American, 25.4% Hispanic/Chicano/Latino, 54.2% Caucasian, 3.0% Asian-American, 2.1% Native-American, and 2.8% other. The racial composition was not a good fit for the population with a chi-square value of 18.80 (df = 5, p> 0.05). The school's class standing population was 29.7% freshman, 28.2% sophomore, 23.6% junior, and 18.5% senior. The sample demographic distribution was 9.9% freshman, 21.1% sophomore, 1.4% junior, and 64.1% senior. The survey sample class standing was not a good fit for the population with a chi-square value of 153.64 (df = 3, p> 0.05). The average number of years that the respondents were exposed to a SRO was 7.45 years.

Demographic data for the students surveyed in School Three were compared to the school's population demographics (See Appendix M, Table 39). A chi-square goodness-of-fit test was conducted to determine if the School Three's surveyed sample distribution fits the school's population. The school's gender population was 52.3% male

and 47.7% female. The gender of the students surveyed was 43.8% male and 56.3% female. School Three's gender was not a good fit for the population with a chi-square value of 8.97 (df = 1, p> 0.05). The school's racial population was 15.5% African-American, 50.5% Hispanic/Chicano/Latino, 27.0% Caucasian, 3.0% Asian-American, 0.4% Native-American, and 3.7% other. The school's surveyed sample racial distribution was 16.7% African-American, 35.4% Hispanic/Chicano/Latino, 33.3% Caucasian, 4.2% Asian-American, 0.0% Native-American, and 8.3% other. The racial composition was a good fit for the population with a chi-square value of 6.10 (df = 5, p> 0.05). The school's class standing population was 27.0% freshman, 25.2% sophomore, 26.4% junior, and 21.4% senior. The sample demographic distribution was 2.1% freshman, 22.9% sophomore, 25.0% junior, and 50.0% senior. The survey sample class standing was not a good fit for the population with a chi-square value of 37.13 (df = 3, p> 0.05). The average number of years that the respondents were exposed to a SRO was 7.22 years.

Demographic data for the students surveyed in School Four were compared to the school's population demographics (See Appendix M, Table 40). A Chi Square goodness-of-fit test was conducted to determine if the School Four's surveyed sample distribution fits the school's population. The school's gender population was 49.4% male and 50.6% female. The gender of the students surveyed was 36.6% male and 62.4% female. School Four's gender was not a good fit for the population with a Chi Square value of 5.95 (df = 1, p> 0.05). The school's racial population was 9.9% African-American, 67.8% Hispanic/Chicano/Latino, 14.0% Caucasian, 3.7% Asian-American, 0.4% Native-American, and 4.2% other. The school's surveyed sample racial distribution was 9.9%

African-American, 62.4% Hispanic/Chicano/Latino, 14.9% Caucasian, 2.0% Asian-American, 1.0% Native-American, and 7.9% other. The racial composition was a good fit for the population with a Chi Square value of 5.17 ($df = 5$, $p < 0.05$). The school's class standing population was 31.7% freshman, 26.4% sophomore, 25.2% junior, and 16.7% senior. The sample demographic distribution was 16.8% freshman, 14.9% sophomore, 21.8% junior, and 45.5% senior. The survey sample class standing was not a good fit for the population with a Chi Square value of 58.05 ($df = 3$, $p < 0.05$). The average number of years that the respondents were exposed to a SRO was 6.10 years.

Demographic data for the students surveyed in School Five were compared to the school's population demographics (See Appendix M, Table 41). A chi-square goodness-of-fit test was conducted to determine if the School Five's surveyed sample distribution fits the school's population. The school's gender population was 55.5% male and 44.5% female. The gender of the students surveyed was 50.0% male and 50.0% female. School Five's gender was a good fit for the population with a chi-square value of 0.78 ($df = 1$, $p < 0.05$). The school's racial population was 18.5% African-American, 55.0% Hispanic/Chicano/Latino, 18.2% Caucasian, 2.5% Asian-American, 0.4% Native-American, and 5.4% other. The school's surveyed sample racial distribution was 18.2% African-American, 62.1% Hispanic/Chicano/Latino, 10.6% Caucasian, 3.0% Asian-American, 0.0% Native-American, and 4.5% other. The racial composition was a good fit for the population with a chi-square value of 3.05 ($df = 5$, $p < 0.05$). The school's class standing population was 28.3% freshman, 27.1% sophomore, 24.6% junior, and 20.0% senior. The sample demographic distribution was 18.2% freshman, 18.2% sophomore, 22.7% junior, and 40.9% senior. The survey sample class standing was not a good fit for

the population with a chi-square value of 17.45 ($df = 3$, $p > 0.05$). The average number of years that the respondents were exposed to a SRO was 5.20 years.

Demographic data for the students surveyed in School Six were compared to the school's population demographics (See Appendix M, Table 42). A chi-square goodness-of-fit test was conducted to determine if the School Six's surveyed sample distribution fits the school's population. The school's gender population was 51.1% male and 48.9% female. The gender of the students surveyed was 34.8% male and 65.2% female. School Six's gender was not a good fit for the population with a chi-square value of 4.76 ($df = 1$, $p > 0.05$). The school's racial population was 3.3% African-American, 19.3% Hispanic/Chicano/Latino, 73.7% Caucasian, 1.3% Asian-American, 0.2% Native-American, and 2.2% other. The school's surveyed sample racial distribution was 4.3% African-American, 10.9% Hispanic/Chicano/Latino, 82.6% Caucasian, 0.0% Asian-American, 0.0% Native-American, and 2.2% other. The racial composition was a good fit for the population with a chi-square value of 2.99 ($df = 5$, $p < 0.05$). The school's class standing population was 27.2% freshman, 27.7% sophomore, 25.3% junior, and 19.8% senior. The sample demographic distribution was 0.0% freshman, 34.8% sophomore, 19.6% junior, and 45.7% senior. The survey sample class standing was not a good fit for the population with a chi-square value of 28.61 ($df = 3$, $p > 0.05$). The average number of years that the respondents were exposed to a SRO was 8.28 years.

Demographic data for the students surveyed in the school district were compared to the school district's population demographics (See Appendix M, Table 43). A chi-square goodness-of-fit test was conducted to determine if the school district's surveyed sample distribution fits the school district's population. The school district's gender

population was 51.1% male and 48.9% female. The gender of the students surveyed was 40.1% male and 59.9% female. The school district's gender was not a good fit for the population with a chi-square value of 26.44 ($df = 1$, $p > 0.05$). The school district's racial population was 9.6% African-American, 46.4% Hispanic/Chicano/Latino, 37.1% Caucasian, 2.7% Asian-American, 0.1% Native-American, and 3.9% other. The school district's surveyed sample racial distribution was 8.8% African-American, 37.3% Hispanic/Chicano/Latino, 43.1% Caucasian, 4.1% Asian-American, 1.3% Native-American, and 5.4% other. The racial composition was not a good fit for the population with a chi-square value of 32.64 ($df = 5$, $p > 0.05$). The school district's class standing population was 30.6% freshman, 25.9% sophomore, 25.6% junior, and 17.9% senior. The sample demographic distribution was 12.9% freshman, 21.6% sophomore, 18.6% junior, and 46.8% senior. The survey sample class standing was not a good fit for the population with a chi-square value of 303.67 ($df = 3$, $p > 0.05$). The average number of years that the respondents were exposed to a SRO was 6.55 years.

Variables

The dependent variables to be examined are taken from the extant literature and represent the following crime concepts: homicide (death on campus), rape (sexual battery), sexual assault, robbery, aggravated assault, battery, weapons possession, theft, bullying with and without force, tobacco use or possession by an individual under age 18, truancy, marijuana use or sale, cocaine use or sale, and other drug use or sale. These variables were chosen from different studies containing statistics of crimes on school campuses. Overall crime and individual crimes by types were examined to determine if

the SRO has a deterrent effect on overall crime and independently by crime type. These variables are by no means the only crimes that occur on school grounds, but they are the most statistically represented in the research. Each crime type was defined according to Florida State Statute. The other offenses were defined by school district code.

Students' age, race, gender, class standing, income level, school attended, past crimes, exposure to a SRO, friends' crime history, and family crime history (see Table 3) are independent variables used to examine factors that influence the students' perception about the SRO's deterrent capabilities. Table 3 includes the variable name, a definition for each of the independent variables, the codes used in the analysis, and the type of variable.

The dependent crime variables are defined according to Florida State Statutes or as shown in Table 3. The variables were taken from the Florida Criminal Law and Motor Vehicle Handbook (2004). The table was divided into four sections; Independent variables, FBI Part I Offenses, FBI Part II Offenses, and Other Offenses and Overall Crime.

Table 3: Independent and Dependent Variable Definitions

Variable	Definition	Code	Type
Independent Variables			
Age	Independent variable for the participant's age.	Numerical in years	Continuous
Race	Independent variable for participant's race.	1-African-American, 2-Hispanic/Chicano/ Latino, 3-Caucasian, 4-Asian-American, 5-Native-American, 6-Other	Nominal
Gender	Independent variable for the participant's gender.	1-Male, 2-Female	Nominal

Variable	Definition	Code	Type
Class Standing	Independent variable for the participant's class standing or grade level.	1-Freshman, 2-Sophomore, 3-Junior, 4-Senior	Ordinal
Income Level	Independent variable to measure participant's income level.	1-Yes, 2-No	Nominal
School Attended	Independent variable for the school attending by the participant.	Numerical label for each school of 1, 2, 3, 4, 5, or 6	Nominal
Past Crimes	Independent variable for the participant's criminal history.	1-Yes, 2-No	Nominal
SRO Exposure	Independent variable to measure length of participant's exposure to a SRO.	Numerical in years	Continuous
Friends' Crime	Independent variable for the participant's friends' criminal history.	1-Yes, 2-No	Nominal
Family Crime History	Independent variable for student's family members that are or have been in trouble with the law.	1-Yes, 2-No, 3-Don't Know	Nominal
Dependent Variables			
FBI Part I Offenses			
Homicide	The unlawful killing of a human being.	1-Strongly Agree, 2-Agree, 3-Neutral, 4-Disagree, 5-Strongly Disagree	Ordinal
Rape	Oral, anal, or vaginal penetration by, or union with, the sexual organ of another or the anal or vaginal penetration of another by any other object.	1-Strongly Agree, 2-Agree, 3-Neutral, 4-Disagree, 5-Strongly Disagree	Ordinal

Variable	Definition	Code	Type
Robbery	Taking of money or other property which may be the subject of larceny from the person or custody of another, with intent to either permanently or temporarily deprive the person or owner of the money or other property, when in the course of the taking there is the use of force, violence, assault, or putting in fear.	1-Strongly Agree, 2-Agree, 3-Neutral, 4-Disagree, 5-Strongly Disagree	Ordinal
Aggravated Assault	An assault with a deadly weapon without intent to kill or with intent to commit a felony.	1-Strongly Agree, 2-Agree, 3-Neutral, 4-Disagree, 5-Strongly Disagree	Ordinal
Theft	A person knowingly obtains or uses, or endeavors to obtain or use, the property of another with intent to, either temporarily or permanently: deprive the other person of a right to the property or a benefit from the property; or appropriate the property to his or her own use or to the use of any person not entitled to the property.	1-Strongly Agree, 2-Agree, 3-Neutral, 4-Disagree, 5-Strongly Disagree	Ordinal
FBI Part II Offenses			
Sexual Assault	An intentional, unlawful threat by word or act to do violence to the person of another with intent to commit a felony or with a deadly weapon.	1-Strongly Agree, 2-Agree, 3-Neutral, 4-Disagree, 5-Strongly Disagree	Ordinal
Battery	Actually and intentionally touches or strikes another	1-Strongly Agree, 2-Agree,	Ordinal

Variable	Definition	Code	Type
	person against the will of the other, or intentionally causes bodily harm to another person.	3-Neutral, 4-Disagree, 5-Strongly Disagree	
Possession of Weapon	A person shall not posses any firearm, electric weapon or device, destructive device, or other weapon, including a razor blade, box cutter, or knife, except as authorized in support of school sanctioned activities.	1-Strongly Agree, 2-Agree, 3-Neutral, 4-Disagree, 5-Strongly Disagree	Ordinal
Bullying with force	Long-standing violence, physical or psychological, conducted by an individual or group and directed against an individual who is not able to defend himself in the actual situation with a desire to hurt, threaten or frighten that individual or put him under stress.	1-Strongly Agree, 2-Agree, 3-Neutral, 4-Disagree, 5-Strongly Disagree	Ordinal
Bullying without force	Long-standing violence, physical or psychological, conducted by an individual or group and directed against an individual who is not able to defend himself in the actual situation with a desire to hurt, threaten or frighten that individual or put him under stress.	1-Strongly Agree, 2-Agree, 3-Neutral, 4-Disagree, 5-Strongly Disagree	Ordinal
Marijuana Use or Sale	It is unlawful for any person to sell, manufacture, or deliver, or possess with intent to sell, manufacture, or deliver, a controlled substance.	1-Strongly Agree, 2-Agree, 3-Neutral, 4-Disagree, 5-Strongly Disagree	Ordinal
Cocaine Use or Sale	It is unlawful for any person to sell, manufacture, or	1-Strongly Agree, 2-Agree,	Ordinal

Variable	Definition	Code	Type
	deliver, or possess with intent to sell, manufacture, or deliver, a controlled substance.	3-Neutral, 4-Disagree, 5-Strongly Disagree	
Other Drugs	It is unlawful for any person to sell, manufacture, or deliver, or possess with intent to sell, manufacture, or deliver, a controlled substance.	1-Strongly Agree, 2-Agree, 3-Neutral, 4-Disagree, 5-Strongly Disagree	Ordinal
Other Offenses and Overall Crime			
Tobacco Use or Possession	The use or possession of tobacco by a person under the age of 18.	1-Strongly Agree, 2-Agree, 3-Neutral, 4-Disagree, 5-Strongly Disagree	Ordinal
Truancy	All persons under the age of 18 attend school until they graduate or until their eighteenth birthday.	1-Strongly Agree, 2-Agree, 3-Neutral, 4-Disagree, 5-Strongly Disagree	Ordinal
Crime Deterrent	The overall combined deterrent effect of the SRO.	1-Strongly Agree, 2-Agree, 3-Neutral, 4-Disagree, 5-Strongly Disagree	Ordinal

The above dependent variables were measured using a five point Likert scale unless otherwise specified. Likert scales are useful in survey research because the results may reflect the intensity and opinion of the subject. Likert scales produce consistent answers. One of the most commonly used Likert scale is the five point (Sclove, 2001). The variable category responses were ordered, 1-Strongly Agree, 2-Agree, 3-Neutral, 4-Disagree, 5-Strongly Disagree, which allows for intensity and opinion to be measured

(Long, 1997). According to Laerhoven, van der Zaag-Loonen, and Derkx (2004) students find the Likert scale easy to understand and complete.

The independent variables age, race, gender, class standing, income level, school attended, past crimes, exposure to a SRO, friends' crime history, and family crime history were nominal, ordinal, and continuous in nature. The independent variable age is a continuous variable that requested the student to write his or her age on the survey. Race was a nominal variable with the available responses of 1 – African-American, 2 – Hispanic/Chicano/Latino, 3 – Caucasian, 4 – Asian-American, 5 – Native-American, and 6 – Other. The gender independent variable was a nominal variable that allowed the student to respond 1 – male and 2 – female. The class standing variable was ordinal in nature. The student recorded his or her current grade with one of the following responses; 1 – Freshman, 2 – Sophomore, 3 – Junior, or 4 – Senior.

Income level variable was nominal in nature. The student was asked the students, do you qualify for the free or reduce lunch program? The available responses were 1 – yes and 2 – no. The variable measured the students' family income. One of the main qualifications for free and reduced lunch is a maximum income level. The income is based on a percentage of the Federal Poverty Levels (see Table 4). Families that qualify for the Food Stamp program are automatically eligible. Families may also qualify for free lunch or a reduced lunch based on a maximum income of 185% of the Federal Poverty Levels.

Table 4: Federal Poverty Levels for the 48 Contiguous States and District of Columbia

Persons in family*	Poverty guideline
1	$10,830
2	$14,570
3	$18,310
4	$22,050

Persons in family*	Poverty guideline
5	$25,790
6	$29,530
7	$33,270
8	$37,010

*For families with more than eight persons, add $3,740 for each additional person.

The independent variable, school, did not require a student response. A unique number was assigned to each survey. The numbers allowed each student's school identifier to be accurately recorded.

Past crimes, friends' crime history, and family crime history were nominal variables. The survey required a response to determine if the students, their friends, or family members have been in trouble with the law (arrested, traffic ticket, or other trouble). The available responses were; 1 – yes and 2 – no for past crimes and 1 – yes, 2 – no, and 3 – don't know for friends' crime history and family crime history. SRO exposure was a continuous variable which represents the number of years the students have been in a school with a SRO (Estimate). The student response was to write the numbers of years there has been a SRO in a school he/she attended.

Variable Coding

The independent variables SRO exposure and students' age are variables continuous in nature, but in this study they were recoded to categorical. According to Mandrekar, Mandrekar, and Cha (2003) a continuous variable converted to a categorical variable may produce a more robust ordinal logistic regression model. SRO exposure varied form one through 14 years (see Table 5) and students' age ranged from 13 through 19 years (see Table 6). The SRO exposure variable was recoded into a categorical variable with four categories. The categories were as follows: less than five years, five

through seven years, eight through 10 years, and over 10 years (see Table 5). The students' age variable was recoded into five categories; 14 and under, 15, 16, 17, and 18 and above (see Table 6). In this study there were three students who were 13 and three students who were 19. The categories were designed to be 14 and under and 18 and above because the possibility exists for students to be younger than 13 and older than 19. There are criteria that allows for students to attend school in the studied school district until they are 22. The categories were designed to include these students for study replication purposes.

Table 5: Students' SRO Exposure in Years to Categories

Students' SRO Exposure in Years	Observations	Students' SRO Exposure Category	Description	Observations
1	16			
2	45	1	Less than 5 years	169
3	41			
4	67			
5	48			
6	46	2	5 through 7 years	142
7	48			
8	29			
9	31	3	8 through 10 years	136
10	76			
11	41			
12	51	4	Over 10 years	120
13	25			
14	3			
Total	567*			567*

* Two surveys missing data.

Table 6: Students' Age in Years to Categories

Students' Age in Years	Observations	Student Category	Description	Observations
13	3			
14	53	1	14 years old and under	56
15	120	2	15 years old	120
16	114	3	16 years old	114
17	218	4	17 years old	218
18	48	5	18 years old and above	51
19	3			
Total	559*			559*

* 10 surveys missing data

Variable Recoding

According to Kim, Lee, and Park (2001), an independent variable that has few observations may have undue effects on estimators. The number of observations required depends on the sample size and number of variables. Empty cells or extremely small numbers may produce difficulties running the regression (UCLA: Academic Technology Services, Statistical Consulting Group, 2009). SPSS will produce an error message when categories or cells have too few observations. In cases in which the survey data yields a category that contains a small number of observations the categories were combined to its next category. The variables were recoded into a new variable with combined categories that allowed SPSS to produce more robust and stable results.

Summary of Methods

The survey data was examined in three steps. The first step was data cleaning. Second, descriptive statistics were used to establish if the students perceive the SRO as a deterrent to specific crimes. Third, the hypothesis testing was conducted using ordinal logistic regression to determine if a relationship exists between the students' perception of the SRO as a deterrent to the different types of crime and the student's demographics and personal attributes including age, race, gender, class standing, income level, school attended, past crimes, exposure to a SRO, friends' crime history, and family crime history. The research scrutinized if the presence of a SRO has an overall student perceived deterrent effect on overall crime in general.

CHAPTER FOUR: FINDINGS

Introduction

The descriptive statistics presented later in this chapter illustrates that the students perceive the SRO as a deterrent to the studied crimes. The crimes of homicide, rape, robbery, aggravated assault, theft, battery, weapon possession on school grounds, bullying with force, bullying without force, sexual assault, marijuana use, cocaine use, other drug use, marijuana sale, cocaine sale, other drug sale, tobacco use by someone than 18, tobacco possession by someone less than 18, truancy, and overall crime were all deterred to varying degrees by the SRO in the perception of the students. The school district reported that during the surveyed school year (2007-2008) there were not any reports of homicide, rape, robbery, or tobacco use by a person under age 18 on school grounds and only one incident of aggravated assault.

In this chapter the subject is to examine some of the possible influences on the students' perception of the SRO as a deterrent to campus crime. Specifically, does the students' age, race, gender, class standing, income level, school attended, past crimes, exposure to a SRO, friends' crime history, and family crime history influence the students' perception of the SRO. This chapter contains the following sections: Statistical Methods; Results including Descriptive Statistics, Variable Recoding, Hypothesis Results for FBI Part I Crimes, Hypothesis Results for FBI Part II Crimes, and Hypothesis Results for Other Offenses and Overall Crime; and Summary of Findings.

Statistical Methods

This study tested the research hypotheses using a type of multiple regression. Multiple regression is a statistical method that allows the determination of a relationship of a dependent variable as a function of various independent variables. Multiple regression produces strength and direction of a linear relationship. Multiple regression explores in detail the interrelationship between dependent variable and a set of independent variables. Another benefit of multiple regression is to explain or predict a particular outcome (Pallant, 2005). This research used regression to explain the factors that influence the dependent variable or the student's perception of the SRO as a deterrent to crime on school campuses.

The standard multiple regression was not appropriate in this study because some of the dependents variables in this study were ordinal not continuous. Logistic regression is a viable option. The difference between multiple linear regression and logistical regression is the outcome variable is binary or dichotomous (Hosmer & Lemeshow, 2000). This study used categorical variables, which may cause issues with logistical regression. Cliff (1996) stated that ordinal statistics will produce a more robust result when appropriate linear model could not be used for a categorical outcome. This study used ordinal logistic regression to examine the hypotheses of interest. Ordinal logistic regression was the most appropriate statistical technique for this study. Ordinal logistic regression can also include categorical independent variables, which are used in this analysis (Dallal, 2001). The regression analysis detects associations between multiple independent variables and the dependent variable by controlling for other covariate factors. In this study, the regression examines different student's characteristics and the

relationship to the students' perception of the SRO as a deterrent to overall crime on school campuses.

The analysis calculated the odds ratio for each of the independent variables. The odds ratio is a measure of effect size, which reflects the comparisons of probability of a certain outcome between categories of independent variables (Long, 1997). An odds ratio greater than one implies that the outcome (the dependent variable) is more likely to occur in one category of the independent variable as opposed to the other categories of the independent variable. For example, an odds ratio of 2.0 may be interpreted to mean that the individual with a certain trait may be twice as likely to disagree as those without that trait if disagree has a higher ranking than agreement in measurement.

The ordinal logistic regression was completed using the statistical program SPSS (Statistical Package for the Social Sciences) version 13.0. Ordinal logistic regression allows the students' perception of the SRO as a deterrent to crime on school campuses to be examined to determine if a statistically significant relationship exists between those perceptions and the independent variables of interest. The ordinal logistic regression formula is presented in the equation below:

Equation 1: Ordinal Logistic Regression Equation for Student Perception of SRO

$$Y = \alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \beta_6 x_6 + \beta_7 x_7 + \beta_8 x_8 + \beta_9 x_9 + \beta_{10} x_{10} + \varepsilon$$

The unit of analysis would be the student
Y - Dependent variable – student perception of SRO
x_1 - Independent variable – age
x_2 - Independent variable – race
x_3 - Independent variable – gender
x_4 - Independent variable – class standing
x_5 - Independent variable – income level
x_6 - Independent variable – school attended
x_7 - Independent variable – past crimes
x_8 - Independent variable – exposure to a SRO
x_9 - Independent variable – friends' crime history

x_{10} - Independent variable – family crime history
β - Regression coefficients
α – Alpha – an intercept component to the model that represents the models value for Y when X = 0
ε – Random error

Results

The Survey of Students' Perception of the School Resource Officer was distributed at six high schools. The four hypotheses were tested for each school. The outcome for each school was combined to obtain the school district's comprehensive high schools' result and to determine the perception of students of overall crime on schools campuses.

The result section was divided into five sections. Section one presents the results of the descriptive statistic analysis. Section two describes the variable recoding procedure used in the ordinal logistic regressions. Section three includes hypotheses test results for FBI Part I Crimes of homicide, rape, robbery, aggravated assault, and theft. Section four includes hypotheses test results for FBI Part II Crimes of battery, weapon possession on school grounds, bullying, sexual assault, marijuana use and sale on school grounds, cocaine use and sale on school grounds, and other drug use and sale on school grounds. Section five includes hypotheses test results for other offenses including tobacco use and possession by someone less than 18, truancy, and overall crime.

Descriptive Statistics for the Dependent Variables

The present study used descriptive statistics to describe students' perception of the SRO as a deterrent to the crimes of interest. Each student was surveyed to determine

if, in his or her opinion, the SRO is a deterrent to specific types of crimes that may occur on school campuses. The student could choose the following responses: 1-Strongly Agree, 2-Agree, 3-Neutral, 4-Disagree, or 5-Strongly Disagree.

The dependent variables were measured using the five point Likert Scale with the following categories strongly agree, agree, neutral, disagree, and strongly disagree (see Table 7). The dependent variables were measured using the five point Likert Scale with the following categories strongly agree, agree, neutral, disagree, and strongly disagree (see Table 7). The strongly agree response of students for the dependent variable ranged from a high of 48.8% (homicide) to the low of 24.0% (bullying without force). The student response of agree ranged from a high of 29.5% (aggravated assault) to a low of 23.3% (cocaine sale and other drug sale). Neutral response ranged from a high of 25.4% (truancy) to a low of 18.7% (cocaine use) of the total responses of the students. Alternatively, those students who did not agree with the statement ranged from a high of 14.6% (theft) to a low of 6.4% (cocaine use). The strongly disagree student response ranged from a high of 12.0% (truancy) to a low of 3.2% (cocaine use and overall crime).

Table 7: Descriptive Statistics for the Survey Results of the Dependent Variables

Dependent Variable	Strongly Agree	Agree	Neutral	Disagree	Disagree Strongly
Homicide	276 (48.8%)	141 (24.9%)	99 (17.5%)	36 (6.4%)	14 (2.5%)
Rape	260 (45.9%)	160 (28.2%)	94 (16.6%)	32 (5.6%)	21 (3.7%)
Robbery	205 (36.2%)	163 (28.7%)	117 (20.6%)	55 (9.7%)	27 (4.8%)
Aggravated Assault	233 (41.1%)	167 (29.5%)	98 (17.3%)	47 (8.3%)	22 (3.9%)
Theft	158 (27.9%)	137 (24.2%)	140 (24.7%)	83 (14.6%)	49 (8.6%)
Battery	202 (35.8%)	162 (28.7%)	108 (19.1%)	59 (10.4%)	34 (6.0%)
Weapon Possession	230 (40.6%)	158 (27.9%)	107 (18.9%)	45 (7.9%)	27 (4.8%)

Dependent Variable	Strongly Agree	Agree	Neutral	Disagree	Disagree Strongly
Bullying with Force	136 (31.2%)	138 (27.3%)	141 (24.3%)	102 (12.0%)	50 (5.1%)
Bullying without Force	177 (24.0%)	155 (24.3%)	138 (24.9%)	68 (18.0%)	29 (8.8%)
Sexual Assault	238 (42.0%)	142 (25.0%)	116 (20.5%)	49 (8.6%)	22 (3.9%)
Marijuana Use	231 (40.8%)	155 (27.4%)	111 (19.6%)	47 (8.3%)	22 (3.9%)
Cocaine Use	253 (44.7%)	153 (27.0%)	106 (18.7%)	36 (6.4%)	18 (3.2%)
Other Drug Use	232 (41.0%)	152 (26.9%)	108 (19.1%)	50 (8.8%)	24 (4.2%)
Marijuana Sale	242 (42.8%)	135 (23.9%)	113 (20.0%)	47 (8.3%)	29 (5.1%)
Cocaine Sale	261 (46.0%)	132 (23.3%)	113 (19.9%)	38 (6.7%)	23 (4.1%)
Other Drug Sale	248 (43.7%)	132 (23.3%)	118 (20.8%)	41 (7.2%)	28 (4.9%)
Tobacco Use	199 (35.1%)	143 (25.2%)	119 (21.0%)	72 (12.7%)	34 (6.0%)
Tobacco Possession	185 (32.7%)	138 (24.4%)	120 (21.2%)	79 (14.0%)	44 (7.8%)
Truancy	144 (25.4%)	133 (23.5%)	144 (25.4%)	78 (13.8%)	68 (12.0%)
Overall Crime	222 (39.2%)	159 (28.9%)	122 (21.5%)	46 (8.1%)	18 (3.2%)

Descriptive Statistics for the Remaining Independent Variables

The remaining independent variables not included in the demographics are the students' family crime history, past crimes, income level, SRO exposure, school attended, and friends' crime history. The descriptive statistics for those variables are presented in this section. The independent variable, students' family crime history, accounts for the students' family members who have been in trouble with the law contained three responses; yes, no, and don't know. The yes response for students' family crime history for the schools and the school district ranged from a high of School Five (65.2%) to the low School Three (41.7%). The no response had a high at School Three (43.8%) to the low at School Five (24.2%). Students responding don't know ranged from 12.5%

through 9.9%. The students who failed to respond were relatively low between 0% and 3.5% (see Table 8).

Table 8: Frequencies for the Independent Variable Students' Family Crime History

School	Yes		No		Do Not Know		Missing		Total
1	85	(51.2%)	61	(36.8%)	20	(12.0%)	0	(0.0%)	166
2	78	(54.9%)	45	(31.7%)	14	(9.9%)	5	(3.5%)	142
3	20	(41.7%)	21	(43.8%)	6	(12.5%)	1	(2.0%)	48
4	53	(52.5%)	35	(34.7%)	12	(11.9%)	1	(0.9%)	101
5	43	(65.2%)	16	(24.2%)	7	(10.6%)	0	(0.0%)	66
6	25	(54.3%)	16	(34.8%)	5	(10.9%)	0	(0.0%)	46
District	304	(53.4%)	194	(34.1%)	64	(11.2%)	7	(1.3%)	569

The independent variable, student's past crimes, contained two responses, yes and no. The responses for students' past crime history were consistently no for all of the schools. School Five had the lowest percentage respond no (65.2%) and School One had the highest (87.4%). The percentages of missing responses ranged from 0.0% to 3.5% (see Table 9).

Table 9: Frequencies for the Independent Variable Student's Past Crimes

School	Yes		No		Missing		Total
1	17	(10.2%)	145	(87.4%)	4	(2.4%)	166
2	21	(14.8%)	116	(81.7%)	5	(3.5%)	142
3	10	(20.8%)	37	(77.1%)	1	(2.1%)	48
4	22	(21.8%)	76	(75.2%)	3	(3.0%)	101
5	22	(33.3%)	43	(65.2%)	1	(1.5%)	66
6	7	(15.2%)	39	(84.8%)	0	(0.0%)	46
District	99	(17.4%)	456	(80.1%)	14	(2.5%)	569

The independent variable, income level, contained two responses, yes and no. The income level was determined by determining if the student qualified for free and reduced lunch. The responses for students' income level (qualified for free and reduced lunch) varied among the different schools. Schools Three (58.3%), Four (61.4%), and Five (75.8%) contained the majority of surveyed students that qualified for free and reduced lunch. Schools One (66.9%), Two (59.2%), and Six (87.0%) included the largest

percentages of surveyed students that responded that he or she did not qualify for free and reduced. The surveys missing this data ranged from 0.0% to 9.2% (see Table 10).

Table 10: Frequencies for the Independent Variable Income Level (Student's Qualifying for Free Lunch)

School	Yes		No		Missing		Total
1	53	(31.9%)	111	(66.9%)	2	(1.2%)	166
2	45	(31.7%)	84	(59.2%)	13	(9.2%)	142
3	28	(58.3%)	18	(37.5%)	2	(4.2%)	48
4	62	(61.4%)	32	(31.7%)	7	(6.9%)	101
5	50	(75.8%)	14	(21.2%)	2	(3.0%)	66
6	6	(13.0%)	40	(87.0%)	0	(0.0%)	46
District	244	(42.9%)	299	(52.6%)	26	(4.5%)	569

The independent variable, students' friends' crime history, that accounts for the students' friends that have been in trouble with the law contained two responses, yes and no. The responses for students' friends' crime history were close to the school district average of yes (63.3%), no (33.7%), and missing (3.0%). School Five (75.8%) contained the highest percentage of students who responded yes to knowing friends that have been in trouble with the law. School One (54.2%) was the lowest percentage of yes responses. Surveys with missing data ranged from 0.6% (School One) to 5.6% (School Two) (see Table 11).

Table 11: Frequencies for the Independent Variable Student's Friend's Past Crimes

School	Yes		No		Missing		Total
1	90	(54.2%)	75	(45.2%)	1	(0.6%)	166
2	94	(66.2%)	40	(28.2%)	8	(5.6%)	142
3	31	(64.6%)	16	(33.3%)	1	(2.1%)	48
4	67	(66.3%)	30	(29.7%)	4	(4.0%)	101
5	50	(75.8%)	14	(21.2%)	2	(3.0%)	66
6	28	(60.9%)	17	(37.0%)	1	(2.1%)	46
District	360	(63.3%)	192	(33.7%)	17	(3.0%)	569

The independent variable, age, was an open response for the students to write his or her age on a line. The responses for students' age for were between 13 and 19. The

majority of students surveyed were between 15 and 17. Students in the 15 through 17 age range accounted for 79.4% of the (see Table 12).

Table 12: Frequencies for the Independent Variable Students' Age

Age	School 1	School 2	School 3	School 4	School 5	School 6	District
13	1 (0.6)	0 (0.0)	0 (0.0)	2 (2.0)	0 (0.0)	0 (0.0)	3 (0.5)
14	22 (13.3)	14 (9.9)	1 (2.1)	14 (13.9)	2 (3.0)	0 (0.0)	53 (9.3)
15	41 (24.7)	26 (18.3)	9 (18.8)	13 (12.9)	20 (30.3)	11 (23.9)	120 (21.1)
16	43 (25.9)	9 (6.3)	10 (20.8)	22 (21.8)	17 (25.8)	13 (28.3)	114 (20.0)
17	53 (31.9)	74 (52.1)	22 (45.8)	35 (34.7)	19 (28.8)	15 (32.6)	218 (38.3)
18	4 (2.4)	13 (9.2)	6 (12.5)	10 (9.9)	8 (12.1)	7 (15.2)	48 (8.4)
19	0 (0.0)	0 (0.0)	0 (0.0)	3 (3.0)	0 (0.0)	0 (0.0)	3 (0.5)
Missing	2 (1.2)	6 (4.2)	0 (0.0)	2 (2.0)	0 (0.0)	0 (0.0)	10 (1.8)
Total	166	142	48	101	66	46	569

* Percentages are in parenthesis.

The independent variable students' SRO exposure was an open response for the students to write the number of years the student had an SRO at his or her school on a line. The goal of this research was to survey students who had been exposed to a SRO for a minimum of five years. There were 70.3% of the students who had five or more years of SRO exposure. The range of SRO exposure was between one and 14 years. The largest group of students (13.4%) had 10 years of SRO exposure. The schools surveyed are grades kindergarten through 12th grade. A student may have more years of SRO exposure because of the pre-kindergarten program, students repeating a grade, or the possibility of students not graduating until the age of 22 (see Table 13).

Table 13: Student Years of Exposure to the SRO Exposure

Years	School 1	School 2	School 3	School 4	School 5	School 6	District
1	5 (3.0)	2 (1.4)	3 (6.3)	2 (2.0)	3 (4.5)	1 (2.2)	16 (2.8)
2	18 (10.8)	10 (7.0)	4 (8.3)	7 (6.9)	4 (6.1)	2 (4.3)	45 (7.9)
3	8 (4.8)	11 (7.7)	1 (2.1)	12 (11.9)	8 (12.1)	1 (2.2)	41 (7.2)
4	25 (15.1)	15 (10.6)	6 (12.5)	8 (7.9)	7 (10.6)	6 (13.0)	67 (11.8)
5	17 (10.2)	8 (5.6)	2 (4.2)	10 (9.9)	9 (13.6)	2 (4.3)	48 (8.4)
6	18 (10.8)	6 (4.2)	2 (4.2)	8 (7.9)	8 (12.1)	4 (8.7)	46 (8.1)
7	14 (8.4)	13 (9.2)	6 (12.5)	8 (7.9)	4 (6.1)	3 (6.5)	48 (8.4)
8	8 (4.8)	7 (4.9)	1 (2.1)	8 (7.9)	4 (6.1)	1 (2.2)	29 (5.1)

Years	School 1	School 2	School 3	School 4	School 5	School 6	District
9	13 (7.8)	4 (2.8)	2 (4.2)	7 (6.9)	3 (4.5)	2 (4.3)	31 (5.4)
10	25 (15.1)	23 (16.2)	5 (10.4)	10 (9.9)	6 (9.1)	7 (15.2)	76 (13.4)
11	6 (3.6)	13 (9.2)	5 (10.4)	5 (5.0)	5 (7.6)	7 (15.2)	41 (7.2)
12	6 (3.6)	17 (12.0)	8 (16.7)	8 (7.9)	5 (7.6)	7 (15.2)	51 (9.0)
13	2 (1.2)	11 (7.7)	3 (6.3)	7 (6.9)	0 (0.0)	2 (4.3)	25 (4.4)
14	0 (0.0)	2 (1.4)	0 (0.0)	1 (1.0)	0 (0.0)	0 (0.0)	3 (0.5)
Missing	1 (0.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.2)	2 (0.4)
Total	166	142	48	101	66	46	569

* Percentages are in parenthesis.

Variable Recoding

An ordinal logistic regression analysis was performed with the original data. Several of the independent variables were recoded to reduce the number of cells with few observations. The students' race variable originally contained six categories and observations; African-American (49 or 8.8%), Hispanic/Chicano/Latino (207 or 37.3%), Caucasian (239 or 43.1%), Asian-American (23 or 4.1%), Native-American (7 or 1.3%), and Other (30 or 5.4%). The race categories were recoded into the following four categories and observations; African-American (49 or 8.8%), Hispanic/Chicano/Latino (207 or 37.3%), Caucasian (239 or 43.1%), and Other (60 or 10.8%). Asian-American and Native-American accounted for 4.1% and 1.3% respectively, which are not enough observations for the ordinal logistic regression to yield an output without errors. The independent variable the students' family crime history that accounts for the students' family members that have been in trouble with the law originally contained three categories; yes (304 or 54.1%), no (194 or 34.5%), and don't know (64 or 11.4%). The don't know category accounted for approximately 12% of the total. The family crime history variable was recoded into two categories; yes (304 or 54.1%) and other (258 or

45.9%). A student who does not know about their family members' crime history should have little influence on their perception since they are not aware of any criminal history. The focus of this variable was to determine if having family members that have been in trouble with the law influence the student's perception of the SRO as a deterrent to crime on school campuses. Students may not know about family member' criminal history for a variety of reasons including but not limited to single parent households, time period of criminal involvement, adoption, or foster care.

Hypothesis Results for FBI Part I Crimes

Section two examines hypothesis one. Table 14 displays the descriptive statistics for each of the dependent variables included in section two FBI Part I Crimes. The distribution across crime categories show that strongly agree and agree student s' responses are larger than the disagree and strongly disagree responses.

Table 14: Students' Perception for the SRO Prevents FBI Part I Crimes

Dependent Variable	Category	School 1	School 2	School 3	School 4	School 5	School 6	School District
Homicide								
	Strongly Agree	55.2%	51.4%	33.3%	34.7%	54.5%	56.5%	48.8%
	Agree	24.2%	27.1%	35.4%	27.7%	24.2%	4.3%	24.9%
	Neutral	12.0%	17.1%	20.8%	25.7%	10.6%	26.1%	17.5%
	Disagree	6.7%	3.6%	6.3%	7.9%	7.6%	8.7%	6.4%
	Strongly Disagree	1.8%	0.7%	4.2%	4.0%	3.0%	4.3%	2.5%
Rape								
	Strongly Agree	46.1%	51.8%	33.3%	34.7%	53.0%	54.3%	45.9%
	Agree	33.3%	26.2%	31.3%	27.7%	28.8%	13.0%	28.2%
	Neutral	11.5%	17.7%	20.8%	24.8%	7.6%	21.7%	16.6%
	Disagree	6.1%	2.8%	8.3%	9.9%	4.5%	2.2%	5.6%
	Strongly Disagree	3.0%	1.4%	6.3%	3.0%	6.1%	8.7%	3.7%

Dependent Variable	Category	School 1	School 2	School 3	School 4	School 5	School 6	School District
Robbery								
	Strongly Agree	36.4%	40.4%	20.8%	29.7%	45.5%	39.1%	36.2%
	Agree	26.7%	31.2%	41.7%	29.7%	24.2%	19.6%	28.7%
	Neutral	20.0%	21.3%	20.8%	20.8%	16.7%	26.1%	20.6%
	Disagree	12.1%	4.3%	12.5%	14.9%	7.6%	6.5%	9.7%
	Strongly Disagree	4.8%	2.8%	4.2%	5.0%	6.1%	8.7%	4.8%
Aggravated Assault								
	Strongly Agree	43.6%	40.4%	33.3%	30.7%	51.5%	50.0%	41.1%
	Agree	30.9%	34.8%	35.4%	25.7%	22.7%	19.6%	29.5%
	Neutral	14.5%	17.7%	18.8%	22.8%	12.1%	19.6%	17.3%
	Disagree	8.5%	5.0%	10.4%	14.9%	6.1%	4.3%	8.3%
	Strongly Disagree	2.4%	2.1%	2.1%	5.9%	7.6%	6.5%	3.9%
Theft								
	Strongly Agree	23.0%	31.2%	16.7%	24.8%	45.5%	28.3%	27.9%
	Agree	25.5%	24.8%	27.1%	24.8%	18.2%	21.7%	24.2%
	Neutral	21.8%	28.4%	25.0%	28.7%	16.7%	26.1%	24.7%
	Disagree	19.4%	9.9%	22.9%	11.9%	12.1%	13.0%	14.6%
	Strongly Disagree	10.3%	5.7%	8.3%	9.9%	7.6%	10.9%	8.6%
*N		N-166	N-142	N-48	N-101	N-66	N-46	N-569

Hypothesis One (Homicide)

Hypothesis one states, students' perception of the SRO as a deterrent to the FBI Part I offenses (crime of homicide) on school campuses is influenced by the student demographics and personal attributes including age, race, class standing, income, school attended, past crimes, exposures to a SRO, friends' crime history, and family crime history.

School One, Two, Three, Four, Five, and Six had 165, 140, 48, 101, 66, and 46 students respectively respond to the statement; "you think the School Resource Officer at

your school helps prevent homicide from being committed at school." Of those students responded to the statement, the result percentages are shown in Table 14.

Appendix L, Chart 1 displays the student response distribution percentages for schools one through six and the school district overall. The distribution across schools revealed that schools one, two, five, six, and the school district have similar percentages of students strongly agreeing to this statement of approximately 50% while schools three and four were slightly above 30%. Students agreeing were for schools one, two, three, four, five, six and the district overall were between 24% and 34% with School Six the exception of 4.3%. Students responding disagree ranged from 3.6% to 8.7% and the school district overall was 6.4%. Students who strongly disagreed ranged from 0.7% through 4.2% with the district overall being 2.5%.

Once the descriptive statistics are presented, the independent student variables age, race, gender, class standing, income level, school attended, past crimes, exposure to a SRO, friends' crime history, and family crime history were used to perform a ordinal logistic regression analysis for the each of the FBI Part I crimes. The hypothesis testing using SPSS to perform an ordinal logistic regression may produce several test outputs. The SPSS outputs used for this research were -2 Log Likelihoods, Model Goodness-of-fit, and pseudo R square.

In ordinal logistic regression, the null hypothesis that the coefficients for all of the independent variables in the model are zero should be tested (Norusis, 2009). The difference between the -2 Log Likelihoods has a chi-square value if the p value for the calculated chi-square in the likelihood ratio test is less than 0.05 it suggests that the

logistic model can explain the variance of the dependent variable based on the independent variables, not random errors.

One of the statistics that SPSS is capable of performing is a Model Goodness-of-fit. According to Norusis (2009), both of the model goodness-of-fit statistics should be used for models that have a reasonable large number of observations in each cell. Models that fit well would have non-statistically significant results of these tests.

The pseudo R square values, determined by Cox & Snell, Nagelkerke, and McFadden statistical methods, are used to measure the percentage of variance explained (Long, 1997; Pallant, 2005). The parameter estimates or Beta provides information for the contribution or significance of each of the predictor variables (Pallant, 2005). The odds ratio is calculated from the ordinal logistic regression parameter estimate results for each variable. An odds ratio of greater than one indicates that there is an increase odds of being in one outcome category when the predictor variable increases by one unit. If the odds ratio is less than one the opposite or decrease in the outcome when the predictor increases by one unit (Norusis, 2009; Tabachnick & Fidell, 2001).

The results for ordinal logistic regression testing hypothesis one (crime of homicide) rendered a chi-square value of 55.525 and an observed significance level of less than 0.0005 (see Table 15). It suggests that the logistic model can explain the variance of the dependent variable based on the independent variables, not random error and the model with predictors is better than the model without predictors.

The Pearson and Deviance Goodness-of-fit results were 0.145 and 1.000 respectively (see Table 15), which suggests that the model fits the data. The pseudo R square values determined by Cox & Snell, Nagelkerke, and McFadden values are 0.103,

0.113, and 0.044 respectively (see Table 15). The pseudo R square analysis showed the strength of association was moderately low and the percentage of variance explained was slightly over 11%.

The parameter estimates or Beta provides information for the contribution or significance of each of the predictor variables (see Table 15) for the ordinal logistic regression results for the dependent variable homicide. The regression analysis (Equation 2) shows the dependent variable and 10 independent variables. The independent variables statistically significant in this analysis are friends' crime history and School Five. The p values were 0.004 and 0.007 respectively. The result of the ordinal logistic regression reveals two independent variables with a $p < 0.05$. Therefore, the null hypothesis is rejected. This shows that the students' perception of the SRO as a deterrent to the crime of homicide is influenced by the friends' crime history and school variables.

The odds ratio was calculated from the ordinal logistic regression parameter estimate results for each variable (see Table 15). The statistically significant variables were friends' crime history and School Five. An odds ratio for friends' crime history of 1.832 would be interpreted to show that students who have friends who have been in trouble with the law are 1.832 times more likely to disagree that the SRO is a deterrent to homicide on their school campus. The odds ratio for School Five is 0.322. This shows that students in the School Five category are 0.322 times respectively more likely to agree that the SRO is a deterrent to homicide on school campuses.

Table 15: Ordinal Logistic Regression Model Parameter Estimates, Odds Ratio, and SPSS Model Fitting Information for Homicide

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Homicide = 1	0.251	0.506	0.246	1	0.620	-0.741	1.242	1.285	0.477	3.464
Homicide = 2	1.480	0.510	8.411	1	0.004	0.480	2.480	4.394	1.616	11.947
Homicide = 3	2.871	0.527	29.710	1	0.000	1.839	3.904	17.660	6.289	49.588
Family Crime Hist-Yes	0.004	0.187	0.000	1	0.984	-0.363	0.371	1.004	0.695	1.449
Family Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
African-American	0.460	0.385	1.429	1	0.232	-0.294	1.215	1.585	0.745	3.371
Hispanic	-0.091	0.305	0.090	1	0.765	-0.689	0.507	0.913	0.502	1.660
Caucasian	-0.229	0.306	0.558	1	0.455	-0.830	0.372	0.795	0.436	1.450
Other	0[a]	.	.	0	.	.	.	1.000		
Male	-0.167	0.177	0.899	1	0.343	-0.513	0.179	0.846	0.598	1.196
Female	0[a]	.	.	0	.	.	.	1.000		
Free lunch-Yes	0.151	0.207	0.532	1	0.466	-0.255	0.556	1.163	0.775	1.744
Free lunch-No	0[a]	.	.	0	.	.	.	1.000		
Friends' Crime Hist-Yes	0.605	0.208	8.443	1	0.004	0.197	1.014	1.832	1.218	2.756
Friends' Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
Student Past Crime-Yes	0.156	0.236	0.437	1	0.509	-0.307	0.619	1.169	0.736	1.857
Student Past Crime-No	0[a]	.	.	0	.	.	.	1.000		
SRO Exp under 5 years	0.503	0.259	3.772	1	0.052	-0.005	1.011	1.654	0.995	2.749
SRO Exp 5-7 years	0.477	0.268	3.177	1	0.075	-0.048	1.002	1.611	0.954	2.723
SRO Exp 8-10 years	0.435	0.273	2.532	1	0.112	-0.101	0.971	1.545	0.904	2.641
SRO Exp Over 10 years	0[a]	.	.	0	.	.	.	1.000		
Class - Freshman	0.808	0.599	1.821	1	0.177	-0.366	1.982	2.243	0.694	7.255
Class - Sophomore	-0.066	0.481	0.019	1	0.891	-1.009	0.877	0.936	0.365	2.404

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Class - Junior	0.084	0.340	0.061	1	0.804	-0.582	0.751	1.088	0.559	2.118
Class - Senior	0[a]	.	.	0	.	.	.	1.000		
Age 14 and below	-1.108	0.702	2.493	1	0.114	-2.483	0.267	0.330	0.083	1.306
Age 15	-0.253	0.558	0.206	1	0.650	-1.347	0.841	0.776	0.260	2.318
Age 16	0.259	0.430	0.364	1	0.547	-0.583	1.101	1.296	0.558	3.007
Age 17	0.078	0.321	0.059	1	0.808	-0.551	0.707	1.081	0.576	2.027
Age 18 and Above	0[a]	.	.	0	.	.	.	1.000		
School One	-0.531	0.339	2.461	1	0.117	-1.195	0.132	0.588	0.303	1.142
School Two	-0.538	0.348	2.400	1	0.121	-1.220	0.143	0.584	0.295	1.153
School Three	0.168	0.413	0.165	1	0.685	-0.641	0.976	1.182	0.527	2.654
School Four	0.146	0.378	0.150	1	0.699	-0.595	0.887	1.157	0.552	2.427
School Five	-1.133	0.422	7.204	1	0.007	-1.961	-0.306	0.322	0.141	0.737
School Six	0[a]	.	.	0	.	.	.	1.000		

Model Fitting Dependent Variable			-2 Log Likelihood	Chi-Square	*df*	P Value	R Square
Homicide	Model	Intercept Only	1203.278				
		Final	1147.753	55.525	23	.000	
	Goodness-of-Fit	Pearson		1384.541	1330	.145	
		Deviance		1106.608	1330	1.000	
	Pseudo R-Square	Cox and Snell					.103
		Nagelkerke					.113
		McFadden					.044

Link function: Logit.

a. This parameter is set to zero because it is redundant.

Hypothesis One (Rape)

Hypothesis one states, students' perception of the SRO as a deterrent to the FBI Part I offenses (crime of rape) on school campuses is influenced by the students' demographics and personal attributes including age, race, class standing, income, school attended, past crimes, exposures to a SRO, friends' crime history, and family crime history.

School One, Two, Three, Four, Five, and Six had 165, 141, 48, 101, 66, and 46 students respectively respond to the statement; you think the School Resource Officer at your school helps prevent rape from being committed at school. Of those students who responded to the statement, the results are shown in Table 14.

Appendix L, Chart 2 displays the students' rape response distribution percentages for schools one through six and the school district overall. The distribution across schools revealed that schools one, two, five, six, and the school district overall have similar percentages of students strongly agreeing between 45.9% and 54.3% while schools three and four were slightly above 30%. Students agreeing were for schools one, two, three, four, five, six and the district overall were between 26.2% and 3.3% with School Six the exception of 13.0%. Students responding disagree ranged from 2.8% to 9.9% and the school district overall was 5.6%. Students who strongly disagreed ranged from 1.4% through 8.7% with the district overall being 3.7%.

The results for ordinal logistic regression testing hypothesis one (crime of rape) rendered a chi-square value of 55.292 and an observed significance level of less than 0.0005 (see Table 16). It suggests that the logistic model can explain the variance of the

dependent variable based on the independent variables, not random error and the model with predictors is better than the model without predictors.

The Pearson and Deviance Goodness-of-fit results were 0.092 and 1.000 respectively (see Table 16), which suggests that the model fits the data. The pseudo R square values determined by Cox & Snell, Nagelkerke, and McFadden values are 0.102, 0.112, and 0.044 respectively (see Table 16). The pseudo R square analysis showed the strength of association was moderately low and the percentage of variance explained was slightly over 11%.

The independent variables statistically significant for hypothesis one (rape) (see Table 16) are friends' crime history and School Five. The p values were 0.001 and 0.007 respectively. The result of the ordinal logistic regression reveals two independent variables with a $p < 0.05$. Therefore, the null hypothesis is rejected. This study can conclude that the students' perception of the SRO as a deterrent to the crime of rape is influenced by the friends' crime history and school variables.

The odds ratio (see Table 16) for friends' crime history of 2.038 would be interpreted to show that students who have friends who have been in trouble with the law are 2.038 times more likely to disagree that the SRO is a deterrent for the crime of rape on their school campus. The odds ratio for School Five was 0.316. This shows that students in the School Five category are 0.316 times more likely to agree that the SRO is a deterrent to rape on school campuses.

Table 16: Ordinal Logistic Regression Model Parameter Estimates, Odds Ratio, and SPSS Model Fitting Information for Rape

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Rape = 1	0.045	0.503	0.008	1	0.929	-0.941	1.031	1.046	0.390	2.803
Rape = 2	1.396	0.507	7.583	1	0.006	0.402	2.390	4.040	1.496	10.912
Rape = 3	2.715	0.522	27.057	1	0.000	1.692	3.738	15.103	5.430	42.006
Family Crime Hist-Yes	0.045	0.186	0.060	1	0.807	-0.318	0.409	1.046	0.727	1.505
Family Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
African-American	0.137	0.382	0.128	1	0.720	-0.611	0.885	1.146	0.543	2.422
Hispanic	-0.220	0.300	0.539	1	0.463	-0.808	0.368	0.802	0.446	1.444
Caucasian	-0.493	0.301	2.693	1	0.101	-1.082	0.096	0.611	0.339	1.101
Other	0[a]	.	.	0	.	.	.	1.000		
Male	-0.162	0.175	0.853	1	0.356	-0.504	0.181	0.851	0.604	1.199
Female	0[a]	.	.	0	.	.	.	1.000		
Free lunch-Yes	0.094	0.205	0.212	1	0.645	-0.308	0.497	1.099	0.735	1.644
Free lunch-No	0[a]	.	.	0	.	.	.	1.000		
Friends' Crime Hist-Yes	0.712	0.207	11.778	1	0.001	0.305	1.118	2.038	1.357	3.059
Friends' Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
Student Past Crime-Yes	0.073	0.236	0.097	1	0.755	-0.389	0.536	1.076	0.678	1.708
Student Past Crime-No	0[a]	.	.	0	.	.	.	1.000		
SRO Exp under 5 years	0.338	0.257	1.737	1	0.188	-0.165	0.841	1.402	0.848	2.319
SRO Exp 5-7 years	0.338	0.265	1.628	1	0.202	-0.181	0.857	1.402	0.834	2.356
SRO Exp 8-10 years	0.258	0.271	0.907	1	0.341	-0.273	0.790	1.295	0.761	2.203
SRO Exp Over 10 years	0[a]	.	.	0	.	.	.	1.000		
Class - Freshman	0.946	0.597	2.508	1	0.113	-0.225	2.116	2.575	0.799	8.298
Class - Sophomore	-0.341	0.484	0.496	1	0.481	-1.289	0.607	0.711	0.276	1.835

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Class - Junior	0.028	0.340	0.007	1	0.934	-0.639	0.695	1.029	0.528	2.004
Class - Senior	0[a]	.	.	0	.	.	.	1.000		
Age 14 and below	-0.908	0.699	1.689	1	0.194	-2.278	0.462	0.403	0.102	1.587
Age 15	0.144	0.559	0.066	1	0.797	-0.952	1.240	1.155	0.386	3.456
Age 16	0.210	0.431	0.238	1	0.626	-0.634	1.054	1.234	0.530	2.870
Age 17	0.080	0.321	0.062	1	0.804	-0.550	0.709	1.083	0.577	2.032
Age 18 and Above	0[a]	.	.	0	.	.	.	1.000		
School One	-0.246	0.339	0.526	1	0.468	-0.909	0.418	0.782	0.403	1.519
School Two	-0.532	0.349	2.325	1	0.127	-1.215	0.152	0.588	0.297	1.164
School Three	0.424	0.413	1.054	1	0.305	-0.385	1.233	1.528	0.680	3.430
School Four	0.196	0.379	0.268	1	0.605	-0.546	0.939	1.217	0.579	2.556
School Five	-1.153	0.424	7.396	1	0.007	-1.984	-0.322	0.316	0.137	0.725
School Six	0[a]	.	.	0	.	.	.	1.000		

Model Fitting Dependent Variable			-2 Log Likelihood	Chi-Square	*df*	P Value	R Square
Homicide	Model	Intercept Only	1221.106				
		Final	1165.814	55.292	23	.000	
	Goodness-of-Fit	Pearson		1401.933	1333	.092	
		Deviance		1124.669	1333	1.000	
	Pseudo R-Square	Cox and Snell					.102
		Nagelkerke					.112
		McFadden					.044

Link function: Logit.

a. This parameter is set to zero because it is redundant.

Hypothesis One (Robbery)

Hypothesis one states, students' perception of the SRO as a deterrent to the FBI Part I offenses (crime of robbery) on school campuses is influenced by the student demographics and personal attributes including age, race, class standing, income, school attended, past crimes, exposures to a SRO, friends' crime history, and family crime history. School One, Two, Three, Four, Five, and Six had 165, 141, 48, 101, 66, and 46 students respectively respond to the statement; you think the School Resource Officer at your school helps prevent theft by force (robbery) from being committed at school. Of those students who responded to the statement, the results are listed in Table 14

Appendix L, Chart 3 displays the students' SRO prevents robbery response distribution percentages for schools one through six and the school district overall. The school district results showed that 36.0% strongly agreed with a low for School Three of 20.8% to a high for School Five of 45.4%. Students agreeing were distributed from a low of 19.6% for School Six to a high for school 41.7% and the district overall was 28.7%. Students responding disagree ranged from 6.5% to 14.9% and the school district overall was 9.7%. Students who strongly disagreed ranged from 2.8% through 8.7% with the district overall being 4.8%.

The results for ordinal logistic regression testing hypothesis one (crime of robbery) rendered a chi-square value of 57.907 and an observed significance level of less than 0.0005 (see Table 17). It suggests that the logistic model can explain the variance of the dependent variable based on the independent variables, not random error and the model with predictors is better than the model without predictors.

The Pearson and Deviance Goodness-of-fit results were 0.098 and 0.994 respectively (see Table 17), which suggests that the model fits the data. The pseudo R square values determined by Cox & Snell, Nagelkerke, and McFadden values are 0.107, 0.115, and 0.042 respectively (see Table 17). The pseudo R square analysis showed the strength of association was moderately low and the percentage of variance explained was slightly over 11%.

The independent variables statistically significant (see Table 17) in this analysis are friends' crime history, SRO exposure 5-7 years, and School Five. The p values were 0.002, 0.035, and 0.004 respectively. The result of the ordinal logistic regression reveals three independent variables with a $p < 0.05$. Therefore, the null hypothesis is rejected. We can surmise that the students' perception of the SRO as a deterrent to the crime of robbery on school campuses was influenced by the friends' crime history, SRO exposure, and school variables.

The statistically significant variables for the robbery regression (see Table 17) were friends' crime history, SRO exposure 5-7 years, and School Five. An odds ratio for friends' crime history and SRO exposure 5-7 years of 1.855 and 1.720 respectively would be interpreted to show that students who have friends who have been in trouble with the law or are in the SRO exposure 5-7 years are respectively 1.855 and 1.720 times more likely to disagree that the SRO is a deterrent to the crime of robbery on their school campus. The odds ratio for School Five was 0.306. This shows that students in the School Five category are 0.306 times respectively more likely to agree that the SRO is a deterrent to robbery on their school campus.

Table 17: Ordinal Logistic Regression Model Parameter Estimates, Odds Ratio, and SPSS Model Fitting Information for Robbery

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Robbery = 1	0.043	0.493	0.008	1	0.930	-0.922	1.008	1.044	0.398	2.741
Robbery = 2	1.364	0.496	7.551	1	0.006	0.391	2.337	3.912	1.479	10.351
Robbery = 3	2.604	0.507	26.418	1	0.000	1.611	3.597	13.514	5.007	36.473
Family Crime Hist-Yes	0.206	0.181	1.292	1	0.256	-0.149	0.560	1.228	0.862	1.751
Family Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
African-American	0.705	0.380	3.437	1	0.064	-0.040	1.449	2.023	0.961	4.260
Hispanic	0.273	0.298	0.837	1	0.360	-0.312	0.857	1.313	0.732	2.356
Caucasian	0.295	0.297	0.984	1	0.321	-0.288	0.878	1.343	0.750	2.406
Other	0[a]	.	.	0	.	.	.	1.000		
Male	-0.265	0.170	2.421	1	0.120	-0.599	0.069	0.767	0.549	1.071
Female	0[a]	.	.	0	.	.	.	1.000		
Free lunch-Yes	0.331	0.201	2.709	1	0.100	-0.063	0.726	1.393	0.939	2.067
Free lunch-No	0[a]	.	.	0	.	.	.	1.000		
Friends' Crime Hist-Yes	0.618	0.200	9.523	1	0.002	0.225	1.010	1.855	1.253	2.746
Friends' Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
Student Past Crime-Yes	0.033	0.231	0.021	1	0.885	-0.419	0.486	1.034	0.658	1.626
Student Past Crime-No	0[a]	.	.	0	.	.	.	1.000		
SRO Exp under 5 years	0.240	0.249	0.931	1	0.335	-0.248	0.729	1.272	0.780	2.072
SRO Exp 5-7 years	0.542	0.257	4.465	1	0.035	0.039	1.045	1.720	1.040	2.845
SRO Exp 8-10 years	0.096	0.263	0.132	1	0.716	-0.419	0.611	1.100	0.657	1.841
SRO Exp Over 10 years	0[a]	.	.	0	.	.	.	1.000		
Class - Freshman	0.958	0.589	2.648	1	0.104	-0.196	2.111	2.606	0.822	8.260
Class - Sophomore	0.069	0.475	0.021	1	0.885	-0.862	1.000	1.071	0.422	2.718

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Class - Junior	0.391	0.337	1.349	1	0.245	-0.269	1.052	1.479	0.764	2.863
Class - Senior	0[a]	.	.	0	.	.	.	1.000		
Age 14 and below	-1.070	0.681	2.466	1	0.116	-2.405	0.265	0.343	0.090	1.304
Age 15	-0.684	0.548	1.558	1	0.212	-1.758	0.390	0.505	0.172	1.477
Age 16	-0.400	0.423	0.893	1	0.345	-1.230	0.430	0.670	0.292	1.537
Age 17	0.036	0.311	0.014	1	0.907	-0.573	0.646	1.037	0.564	1.907
Age 18 and Above	0[a]	.	.	0	.	.	.	1.000		
School One	-0.063	0.329	0.037	1	0.848	-0.708	0.582	0.939	0.493	1.790
School Two	-0.547	0.338	2.613	1	0.106	-1.209	0.116	0.579	0.298	1.123
School Three	0.197	0.407	0.234	1	0.629	-0.600	0.994	1.217	0.549	2.701
School Four	-0.012	0.371	0.001	1	0.975	-0.739	0.716	0.988	0.478	2.045
School Five	-1.183	0.410	8.314	1	0.004	-1.987	-0.379	0.306	0.137	0.685
School Six	0[a]	.	.	0	.	.	.	1.000		

Model Fitting Dependent Variable			-2 Log Likelihood	Chi-Square	*df*	P Value	R Square
Homicide	Model	Intercept Only	1314.741				
		Final	1256.834	57.907	23	.000	
	Goodness-of-Fit	Pearson		1400.216	1333	.098	
		Deviance		1207.607	1333	.994	
	Pseudo R-Square	Cox and Snell					.107
		Nagelkerke					.115
		McFadden					.042

Link function: Logit.

a. This parameter is set to zero because it is redundant.

Hypothesis One (Aggravated Assault)

Hypothesis one states, students' perception of the SRO as a deterrent to the FBI Part I offenses (crime of aggravated assault) on school campuses is influenced by the student demographics and personal attributes including age, race, class standing, income, school attended, past crimes, exposures to a SRO, friends' crime history, and family crime history. School One, Two, Three, Four, Five, and Six had 165, 141, 48, 101, 66, and 46 students respectively respond to the statement; you think the School Resource Officer at your school helps prevent the crime of threatening someone with a weapon from being committed at school. Of those students who responded to the statement, the outcomes are listed in Table 14.

The students' aggravated assault response distribution percentages for schools one through six and the school district overall are displayed in Appendix L, Chart 4. The distribution across schools varied more than the previous crimes. Students strongly agreeing varied from a low of 30.7% for School Four to a high of 51.5% for School Five with the overall for the district of 41.1%. Students agreeing were between School Six's 19.6% and School Three's 35.4% with the district's overall of 29.5%. Students responding disagree differed between 4.3% to 14.9% and the school district overall was 8.3%. Students who strongly disagreed ranged from 2.1% through 7.6% with the district overall of 3.0%.

The results for ordinal logistic regression testing hypothesis one (crime of aggravated assault) rendered a chi-square value of 50.592 and an observed significance level of 0.001 (see Table 18). It suggests that the logistic model can explain the variance

of the dependent variable based on the independent variables, not random error and the model with predictors is better than the model without predictors.

The Pearson and Deviance Goodness-of-fit results were 0.138 and 1.000 respectively (see Table 18), which suggests that the model fits the data. The pseudo R square values determined by Cox & Snell, Nagelkerke, and McFadden values are 0.094, 0.102, and 0.038 respectively (see Table 18). The pseudo R square analysis showed the strength of association was moderately low and the percentage of variance explained was slightly over 10%.

The independent variables statistically significant (see Table 18) in this analysis are friends' crime history, class standing of freshman, and School Five. The p values were 0.019, 0.017, and 0.028 respectively. The result of the logistic ordinal regression reveals three independent variables with a $p < 0.05$. Therefore, the null hypothesis is rejected and can conclude that the students' perception of the SRO as a deterrent to the crime of aggravated assault on school campuses was influenced by the friends' crime history, class standing, and school variables.

Table 18: Ordinal Logistic Regression Model Parameter Estimates, Odds Ratio, and Model Fitting Information for Aggravated Assault

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Aggravated Assault = 1	0.147	0.498	0.088	1	0.767	-0.829	1.124	1.159	0.436	3.077
Aggravated Assault = 2	1.508	0.503	8.991	1	0.003	0.522	2.493	4.517	1.686	12.102
Aggravated Assault = 3	2.702	0.515	27.573	1	0.000	1.694	3.711	14.911	5.439	40.881
Family Crime Hist-Yes	0.350	0.183	3.644	1	0.056	-0.009	0.709	1.419	0.991	2.032
Family Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
African-American	0.215	0.381	0.319	1	0.572	-0.531	0.961	1.240	0.588	2.615
Hispanic	0.059	0.298	0.039	1	0.843	-0.525	0.644	1.061	0.591	1.904
Caucasian	-0.169	0.297	0.324	1	0.569	-0.752	0.413	0.844	0.472	1.512
Other	0[a]	.	.	0	.	.	.	1.000		
Male	-0.180	0.172	1.094	1	0.296	-0.518	0.158	0.835	0.596	1.171
Female	0[a]	.	.	0	.	.	.	1.000		
Free lunch-Yes	0.058	0.203	0.082	1	0.775	-0.339	0.455	1.060	0.712	1.577
Free lunch-No	0[a]	.	.	0	.	.	.	1.000		
Friends' Crime Hist-Yes	0.475	0.202	5.495	1	0.019	0.078	0.871	1.607	1.081	2.390
Friends' Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
Student Past Crime-Yes	0.311	0.232	1.796	1	0.180	-0.144	0.766	1.365	0.866	2.150
Student Past Crime-No	0[a]	.	.	0	.	.	.	1.000		
SRO Exp under 5 years	-0.154	0.251	0.377	1	0.539	-0.646	0.338	0.857	0.524	1.402
SRO Exp 5-7 years	0.028	0.258	0.012	1	0.914	-0.477	0.533	1.028	0.621	1.704
SRO Exp 8-10 years	-0.253	0.264	0.915	1	0.339	-0.771	0.265	0.777	0.463	1.304
SRO Exp Over 10 years	0[a]	.	.	0	.	.	.	1.000		
Class - Freshman	1.420	0.596	5.682	1	0.017	0.252	2.587	4.136	1.287	13.291
Class - Sophomore	0.528	0.481	1.202	1	0.273	-0.416	1.471	1.695	0.660	4.356

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Class - Junior	0.442	0.341	1.678	1	0.195	-0.227	1.111	1.556	0.797	3.036
Class - Senior	0[a]	.	.	0	.	.	.	1.000		
Age 14 and below	-0.923	0.688	1.802	1	0.179	-2.271	0.425	0.397	0.103	1.529
Age 15	-0.515	0.556	0.859	1	0.354	-1.605	0.575	0.597	0.201	1.777
Age 16	-0.257	0.430	0.358	1	0.549	-1.100	0.585	0.773	0.333	1.795
Age 17	0.230	0.316	0.531	1	0.466	-0.389	0.850	1.259	0.677	2.341
Age 18 and Above	0[a]	.	.	0	.	.	.	1.000		
School One	-0.026	0.336	0.006	1	0.938	-0.685	0.633	0.974	0.504	1.883
School Two	-0.152	0.343	0.197	1	0.657	-0.824	0.520	0.859	0.439	1.682
School Three	0.322	0.412	0.612	1	0.434	-0.485	1.130	1.380	0.616	3.095
School Four	0.559	0.377	2.201	1	0.138	-0.179	1.297	1.748	0.836	3.658
School Five	-0.920	0.419	4.820	1	0.028	-1.742	-0.099	0.398	0.175	0.906
School Six	0[a]	.	.	0	.	.	.	1.000		

Model Fitting Dependent Variable			-2 Log Likelihood	Chi-Square	*df*	P Value	R Square
Homicide	Model	Intercept Only	1260.456				
		Final	1209.864	50.592	23	.001	
	Goodness-of-Fit	Pearson		1389.247	1333	.138	
		Deviance		1159.015	1333	1.000	
	Pseudo R-Square	Cox and Snell					.094
		Nagelkerke					.102
		McFadden					.038

Link function: Logit.

a. This parameter is set to zero because it is redundant.

The statistically significant variables for the aggravated assault regression (see Table 18) were friends' crime history, class standing of freshman, and School Five. An odds ratio for friends' crime history of 1.607 would be interpreted to show that students who have friends who have been in trouble with the law are 1.607 times more likely to disagree that the SRO is a deterrent for the crime of aggravated assault on their school campus. The odds ratio class standing of freshman was 4.136. The results indicate that students in the class standing of freshman category are 4.136 times more likely to disagree that the SRO is a deterrent to aggravated assault on school campuses. The odds ratio for School Five was 0.398. This shows that students in the School Five category are 0.398 times more likely to agree that the SRO is a deterrent to aggravated assault on school campuses.

Hypothesis One (Theft)

Hypothesis one states, was students' perception of the SRO as a deterrent to the FBI Part I offenses (crime of theft) on school campuses is influenced by the student demographics and personal attributes including age, race, class standing, income, school attended, past crimes, exposures to a SRO, friends' crime history, and family crime history. School One, Two, Three, Four, Five, and Six had 165, 141, 48, 101, 66, and 46 students respectively respond to the statement; you think the School Resource Officer at your school helps prevent the crime of theft from being committed at school. The student response percentages, for those responded to the statement, are shown in Table 14.

The students' SRO prevents theft response distribution percentages for schools one through six and the school district overall are displayed in Appendix L, Chart 5. The

distribution across schools revealed that the responses for strongly agree for all of the schools were significantly lower varying from 16.7% to 31.2% except for School Five which responded with 45.5%. Schools with students agreeing were consistently between 18.2% and 25.5% and the district overall was 24.2%. Students responding disagree ranged from 9.9% to 22.9% and the school district overall was 14.6% which was the highest among Part I Crimes. Students who strongly disagreed was also the highest for Part I Crimes ranging from 5.7% through 10.9% with the district overall being 8.6%.

The results for ordinal logistic regression testing hypothesis one (crime of theft) rendered a chi-square value of 55.528 and an observed significance level of less than 0.0005 (see Table 19). It suggests that the logistic model can explain the variance of the dependent variable based on the independent variables, not random error and the model with predictors is better than the model without predictors.

The Pearson and Deviance Goodness-of-fit results were 0.154 and 0.953 respectively (see Table 19), which suggests that the model fits the data. The pseudo R square values determined by Cox & Snell, Nagelkerke, and McFadden values are 0.103, 0.110, and 0.039 respectively (see Table 19). The pseudo R square analysis showed the strength of association was moderately low and the percentage of variance explained was slightly over 11%.

Table 19: Ordinal Logistic Regression Model Parameter Estimates, Odds Ratio, and SPSS Model Fitting Information for Theft

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Theft = 1	-0.582	0.486	1.432	1	0.231	-1.535	0.371	0.559	0.216	1.449
Theft = 2	0.546	0.486	1.261	1	0.261	-0.407	1.498	1.726	0.666	4.472
Theft = 3	1.771	0.492	12.967	1	0.000	0.807	2.735	5.877	2.241	15.411
Family Crime Hist-Yes	0.360	0.180	4.028	1	0.045	0.008	0.712	1.434	1.008	2.038
Family Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
African-American	0.155	0.375	0.170	1	0.680	-0.580	0.890	1.167	0.560	2.434
Hispanic	-0.068	0.291	0.055	1	0.814	-0.640	0.503	0.934	0.528	1.653
Caucasian	-0.001	0.289	0.000	1	0.996	-0.568	0.565	0.999	0.567	1.760
Other	0[a]	.	.	0	.	.	.	1.000		
Male	-0.164	0.168	0.958	1	0.328	-0.494	0.165	0.848	0.610	1.179
Female	0.000	.	.	0	.	.	.	1.000		
Free lunch-Yes	0.358	0.199	3.235	1	0.072	-0.032	0.749	1.431	0.968	2.114
Free lunch-No	0[a]	.	.	0	.	.	.	1.000		
Friends' Crime Hist-Yes	0.472	0.197	5.756	1	0.016	0.086	0.858	1.603	1.090	2.358
Friends' Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
Student Past Crime-Yes	-0.025	0.230	0.012	1	0.912	-0.475	0.425	0.975	0.622	1.529
Student Past Crime-No	0[a]	.	.	0	.	.	.	1.000		
SRO Exp under 5 years	-0.127	0.246	0.268	1	0.604	-0.609	0.354	0.881	0.544	1.425
SRO Exp 5-7 years	0.450	0.253	3.158	1	0.076	-0.046	0.945	1.568	0.955	2.573
SRO Exp 8-10 years	-0.146	0.258	0.319	1	0.572	-0.651	0.359	0.865	0.522	1.433
SRO Exp Over 10 years	0[a]	.	.	0	.	.	.	1.000		
Class - Freshman	1.077	0.588	3.351	1	0.067	-0.076	2.230	2.935	0.927	9.297
Class - Sophomore	0.079	0.470	0.028	1	0.867	-0.843	1.001	1.082	0.430	2.720

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Class - Junior	0.235	0.334	0.494	1	0.482	-0.420	0.890	1.265	0.657	2.436
Class - Senior	0[a]	.	.	0	.	.	.	1.000		
Age 14 and below	-1.018	0.679	2.247	1	0.134	-2.348	0.313	0.361	0.096	1.368
Age 15	-0.055	0.543	0.010	1	0.919	-1.120	1.009	0.946	0.326	2.744
Age 16	0.037	0.420	0.008	1	0.930	-0.787	0.860	1.037	0.455	2.363
Age 17	0.082	0.310	0.070	1	0.791	-0.525	0.689	1.086	0.592	1.992
Age 18 and Above	0[a]	.	.	0	.	.	.	1.000		
School One	0.075	0.325	0.053	1	0.818	-0.563	0.712	1.078	0.570	2.039
School Two	-0.459	0.332	1.907	1	0.167	-1.110	0.192	0.632	0.330	1.212
School Three	0.146	0.404	0.131	1	0.717	-0.645	0.937	1.157	0.525	2.552
School Four	-0.228	0.368	0.385	1	0.535	-0.949	0.493	0.796	0.387	1.637
School Five	-1.524	0.408	13.924	1	0.000	-2.324	-0.723	0.218	0.098	0.485
School Six	0[a]	.	.	0	.	.	.	1.000		

Model Fitting Dependent Variable			-2 Log Likelihood	Chi-Square	*df*	P Value	R Square
Homicide	Model	Intercept Only	1357.177				
		Final	1301.649	55.528	23	.000	
	Goodness-of-Fit	Pearson		1385.564	1333	.154	
		Deviance		1247.792	1333	.953	
	Pseudo R-Square	Cox and Snell					.103
		Nagelkerke					.110
		McFadden					.039

Link function: Logit.

a. This parameter is set to zero because it is redundant.

The independent variables statistically significant (see Table 19) in this analysis are family crime history, friends' crime history, and School Five. The p values were 0.045, 0.016, and 0.000 respectively. The result of the ordinal logistic regression reveals three independent variables with a $p < 0.05$. Therefore, the null hypothesis is rejected. This study can conclude that the students' perception of the SRO as a deterrent to the crime of theft on school campuses is influenced by the family crime history, friends' crime history, and school variables.

An odds ratio for family crime history and friends' crime history of 1.434 and 1.603 respectively (see Table 19) would be interpreted to show that students who have family members that have been in trouble with the law or in the friends' crime history category are respectively 1.434 and 1.603 times more likely to disagree that the SRO is a deterrent to theft on their school campus. The odds ratio for School Five was 0.218. This indicates that students in the School Five category are 0.218 times respectively more likely to agree that the SRO is a deterrent to theft on their school campus.

Hypothesis Results for FBI Part II Crimes

Section three examines hypothesis two. Table 20 displays the descriptive statistics for each of the FBI Part II Crimes. The distribution across crime categories shows that the students' responses of strongly agree and agree categories are larger than the disagree and strongly disagree responses. The responses of students for each school and the school district are similar in that the strongly agree and agree responses are larger compared to the disagree and strongly disagree responses. Bullying without force

contained the smallest difference between the agree and strongly agree compared to the disagree and strongly disagree, but there were more students respond positively.

Table 20: Students' Responses for the SRO Prevents FBI Part II Crimes

Crime	Category	School 1	School 2	School 3	School 4	School 5	School 6	School District
Battery								
	Strongly Agree	32.3%	37.1%	31.3%	30.7%	45.5%	45.7%	35.8%
	Agree	28.0%	27.9%	37.5%	27.7%	27.3%	28.3%	28.7%
	Neutral	18.9%	25.0%	10.4%	22.8%	15.2%	8.7%	19.1%
	Disagree	14.0%	6.4%	14.6%	12.9%	4.5%	8.7%	10.4%
	Strongly Disagree	6.7%	3.6%	6.3%	5.9%	7.6%	8.7%	6.0%
Weapon Possession								
	Strongly Agree	39.4%	41.1%	35.4%	33.7%	53.0%	45.7%	40.6%
	Agree	29.7%	31.2%	39.6%	24.8%	18.2%	19.6%	27.9%
	Neutral	17.0%	20.6%	14.6%	24.8%	12.1%	21.7%	18.9%
	Disagree	10.9%	3.5%	8.3%	10.9%	9.1%	2.2%	7.9%
	Strongly Disagree	3.0%	3.5%	2.1%	5.9%	7.6%	10.9%	4.8%
Bullying Without Force								
	Strongly Agree	17.6%	31.2%	12.5%	22.8%	31.8%	28.3%	24.0%
	Agree	22.4%	26.2%	31.3%	23.8%	27.3%	15.2%	24.3%
	Neutral	23.6%	22.7%	25.0%	26.7%	24.2%	32.6%	24.9%
	Disagree	25.5%	14.2%	25.0%	15.8%	10.6%	10.9%	18.0%
	Strongly Disagree	10.9%	5.7%	6.3%	10.9%	6.1%	13.0%	8.8%
Bullying with Force								
	Strongly Agree	26.1%	36.2%	22.9%	29.7%	40.9%	32. 6%	31.2%
	Agree	24.2%	25.5%	31.3%	26.7%	33.3%	32.6%	27.3%
	Neutral	27.9%	26.2%	22.9%	25.7%	9.1%	26.1%	24.3%
	Disagree	16.4%	8.5%	18.8%	9.9%	15.2%	0.0%	12.0%
	Strongly Disagree	5.5%	3.5%	4.2%	7.9%	1.5%	8.7%	5.1%
Sexual Assault								
	Strongly Agree	40.0%	45.4%	33.3%	34.7%	54.5%	45.7%	42.0%
	Agree	23.6%	30.5%	29.2%	21.8%	21.2%	21.7%	25.0%
	Neutral	21.8%	19.1%	20.8%	23.8%	12.1%	23.9%	20.5%
	Disagree	11.5%	4.3%	10.4%	13.9%	6.1%	2.2%	8.6%

Crime	Category	School 1	School 2	School 3	School 4	School 5	School 6	School District
	Strongly Disagree	3.0%	0.7%	6.3%	5.9%	6.1%	6.5%	3.9%
Marijuana Use	Strongly Agree	37.0%	43.3%	39.6%	33.0%	51.5%	50.0%	40.8%
	Agree	26.7%	29.1%	31.3%	32.0%	24.2%	15.2%	27.4%
	Neutral	18.8%	21.3%	16.7%	24.0%	15.2%	17.4%	19.6%
	Disagree	15.2%	4.3%	8.3%	6.0%	4.5%	6.5%	8.3%
	Strongly Disagree	2.4%	2.1%	4.2%	5.0%	4.5%	10.9%	3.9%
Cocaine Use	Strongly Agree	41.8%	48.2%	39.6%	36.0%	54.5%	54.3%	44.7%
	Agree	28.5%	25.5%	33.3%	33.0%	24.2%	10.9%	27.0%
	Neutral	18.8%	19.1%	14.6%	23.0%	15.2%	17.4%	18.7%
	Disagree	9.7%	5.0%	8.3%	4.0%	3.0%	6.5%	6.4%
	Strongly Disagree	1.2%	2.1%	4.2%	4.0%	3.0%	10.9%	3.2%
Other Drug Use	Strongly Agree	34.5%	45.4%	37.5%	37.0%	53.0%	45.7%	41.0%
	Agree	26.1%	27.7%	31.3%	31.0%	27.3%	13.0%	26.9%
	Neutral	21.8%	17.7%	16.7%	19.0%	13.6%	23.9%	19.1%
	Disagree	15.2%	5.7%	10.4%	7.0%	3.0%	6.5%	8.8%
	Strongly Disagree	2.4%	3.5%	4.2%	6.0%	3.0%	10.9%	4.2%
Marijuana Sale	Strongly Agree	40.9%	46.1%	37.5%	35.6%	53.0%	45.7%	42.8%
	Agree	23.2%	26.2%	31.3%	23.8%	21.2%	15.2%	23.9%
	Neutral	22.6%	18.4%	16.7%	23.8%	13.6%	19.6%	20.0%
	Disagree	11.0%	5.0%	8.3%	9.9%	6.1%	8.7%	8.3%
	Strongly Disagree	2.4%	4.3%	6.3%	6.9%	6.1%	10.9%	5.1%
Cocaine Sale	Strongly Agree	44.2%	50.4%	39.6%	38.6%	54.5%	50.0%	46.0%
	Agree	24.8%	22.0%	33.3%	22.8%	22.7%	13.0%	23.3%
	Neutral	20.6%	20.6%	14.6%	25.7%	13.6%	17.4%	19.9%
	Disagree	9.7%	3.5%	8.3%	5.0%	6.1%	8.7%	6.7%
	Strongly Disagree	0.6%	3.5%	4.2%	7.9%	3.0%	10.9%	4.1%
Other Drug								

Crime	Category	School 1	School 2	School 3	School 4	School 5	School 6	School District
Sale	Strongly Agree	40.6%	46.8%	37.5%	38.6%	54.5%	47.8%	43.7%
	Agree	23.0%	25.5%	31.3%	22.8%	22.7%	10.9%	23.3%
	Neutral	23.0%	19.1%	18.8%	26.7%	10.6%	21.7%	20.8%
	Disagree	10.9%	4.3%	8.3%	5.0%	6.1%	8.7%	7.2%
	Strongly Disagree	2.4%	4.3%	4.2%	6.9%	6.1%	10.9%	4.9%
*N		N-166	N-142	N-48	N-101	N-66	N-46	N-569

Hypothesis Two (Battery)

Hypothesis two states students' perception of the SRO as a deterrent to the FBI Part II offenses (crime of battery) on school campuses is influenced by the student demographics and personal attributes including age, race, class standing, income, school attended, past crimes, exposures to a SRO, friends' crime history, and family crime history. School One, Two, Three, Four, Five, and Six had 164, 140, 48, 101, 66, and 46 students respectively respond to the statement; you think the School Resource Officer at your school helps prevent the crime of battery (touch or strike someone against their will) from being committed at school. The student response percentages, for those responded to the statement, are listed in Table 20.

Appendix L, Chart 6 displays the students' SRO prevents the crime of battery response distribution percentages for schools one through six and the school district overall. The distribution for students' strongly agreeing for the school district was 35.8% including a low of 30.7% for School Four to a high of 45.7% for School Six. Only two schools were above 40.0%. Schools with students agreeing were close to the district overall of 28.7% except for School Three, which was 37.5%. Alternatively, students responding disagree ranged from 4.5% to 14.6% and the school district overall was

10.4%. Students who strongly disagreed ranged from 3.6% through 8.7% with the district overall of 6.0%.

The results for ordinal logistic regression testing hypothesis two (crime of battery) rendered a chi-square value of 51.821 and an observed significance level of 0.001 (see Table 21). It suggests that the logistic model can explain the variance of the dependent variable based on the independent variables, not random error and the model with predictors is better than the model without predictors.

The Pearson and Deviance Goodness-of-fit results were 0.078 and 0.980 respectively (see Table 21), which suggests that the model fits the data. The pseudo R square values determined by Cox & Snell, Nagelkerke, and McFadden values are 0.097, 0.104, and 0.038 respectively (see Table 21). The pseudo R square analysis showed the strength of association was moderately low and the percentage of variance explained was slightly over 10%.

The independent variables statistically significant (see Table 21) in this analysis are friends' crime history, class standing of freshman, and age category of 14 and below. The p values were 0.043, 0.004, and 0.005 respectively. The result of the ordinal logistic regression reveals three independent variables with a $p < 0.05$. Therefore, the null hypothesis is rejected and concludes that the students' perception of the SRO as a deterrent to the crime of battery is influenced by the friends' crime history, class standing, and age variables.

Table 21: Ordinal Logistic Regression Model Parameter Estimates, Odds Ratio, and SPSS Model Fitting Information for Battery

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Battery = 1	0.266	0.493	0.291	1	0.589	-0.700	1.232	1.305	0.497	3.428
Battery = 2	1.544	0.498	9.624	1	0.002	0.569	2.519	4.683	1.766	12.422
Battery = 3	2.623	0.507	26.767	1	0.000	1.629	3.617	13.781	5.101	37.229
Family Crime Hist-Yes	0.316	0.181	3.040	1	0.081	-0.039	0.672	1.372	0.962	1.957
Family Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
African-American	0.482	0.379	1.619	1	0.203	-0.261	1.225	1.619	0.771	3.403
Hispanic	0.059	0.297	0.040	1	0.841	-0.522	0.641	1.061	0.593	1.899
Caucasian	0.259	0.295	0.770	1	0.380	-0.319	0.836	1.295	0.727	2.308
Other	0[a]	.	.	0	.	.	.	1.000		
Male	-0.149	0.170	0.769	1	0.380	-0.483	0.184	0.861	0.617	1.203
Female	0[a]	.	.	0	.	.	.	1.000		
Free lunch-Yes	0.166	0.202	0.675	1	0.411	-0.230	0.562	1.181	0.794	1.755
Free lunch-No	0[a]	.	.	0	.	.	.	1.000		
Friends' Crime Hist-Yes	0.403	0.199	4.096	1	0.043	0.013	0.793	1.496	1.013	2.209
Friends' Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
Student Past Crime-Yes	0.174	0.231	0.564	1	0.453	-0.280	0.627	1.190	0.756	1.871
Student Past Crime-No	0[a]	.	.	0	.	.	.	1.000		
SRO Exp under 5 years	-0.014	0.249	0.003	1	0.956	-0.501	0.474	0.986	0.606	1.606
SRO Exp 5-7 years	0.261	0.255	1.044	1	0.307	-0.239	0.760	1.298	0.787	2.139
SRO Exp 8-10 years	-0.040	0.261	0.023	1	0.879	-0.551	0.471	0.961	0.577	1.602
SRO Exp Over 10 years	0[a]	.	.	0	.	.	.	1.000		
Class - Freshman	1.763	0.608	8.397	1	0.004	0.571	2.955	5.830	1.769	19.210
Class - Sophomore	0.169	0.484	0.122	1	0.726	-0.779	1.118	1.184	0.459	3.058

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Class - Junior	0.281	0.337	0.694	1	0.405	-0.380	0.942	1.324	0.684	2.566
Class - Senior	0[a]	.	.	0	.	.	.	1.000		
Age 14 and below	-1.963	0.702	7.808	1	0.005	-3.339	-0.586	0.140	0.035	0.557
Age 15	-0.607	0.554	1.202	1	0.273	-1.692	0.478	0.545	0.184	1.613
Age 16	-0.307	0.423	0.525	1	0.469	-1.136	0.523	0.736	0.321	1.687
Age 17	0.085	0.310	0.076	1	0.783	-0.523	0.694	1.089	0.593	2.001
Age 18 and Above	0[a]	.	.	0	.	.	.	1.000		
School One	0.557	0.333	2.797	1	0.094	-0.096	1.209	1.745	0.909	3.351
School Two	0.110	0.339	0.106	1	0.745	-0.555	0.776	1.117	0.574	2.172
School Three	0.418	0.410	1.041	1	0.308	-0.385	1.221	1.519	0.681	3.390
School Four	0.531	0.374	2.014	1	0.156	-0.202	1.264	1.700	0.817	3.540
School Five	-0.699	0.413	2.866	1	0.090	-1.508	0.110	0.497	0.221	1.117
School Six	0[a]	.	.	0	.	.	.	1.000		

Model Fitting Dependent Variable			-2 Log Likelihood	Chi-Square	*df*	P Value	R Square
Homicide	Model	Intercept Only	1319.737				
		Final	1267.915	51.821	23	.001	
	Goodness-of-Fit	Pearson		1400.618	1327	.078	
		Deviance		1223.291	1327	.980	
	Pseudo R-Square	Cox and Snell					.097
		Nagelkerke					.104
		McFadden					.038

Link function: Logit.

a. This parameter is set to zero because it is redundant.

An odds ratio (see Table 21) for friends' crime history of 1.496 would be interpreted to show that students who have friends who have been in trouble with the law are 1.496 times more likely to disagree that the SRO is a deterrent to the crime of battery on their school campus. The odds ratio for class standing of freshman was 5.830. This shows that students in the class standing of freshman category are 5.830 times more likely to disagree that the SRO is a deterrent to the crime of battery on school campuses. The odds ratio for age category of 14 and below was 0.140. These results indicate students in the age category of 14 and below are 0.140 times more likely to agree that the SRO is a deterrent to the crime of battery on school campuses.

Hypothesis Two (Weapon Possession)

Hypothesis two states students' perception of the SRO as a deterrent to the FBI Part II offenses (crime of weapon possession) on school campuses is influenced by the student demographics and personal attributes including age, race, class standing, income, school attended, past crimes, exposures to a SRO, friends' crime history, and family crime history. School One, Two, Three, Four, Five, and Six had 165, 141, 48, 101, 66, and 46 students respectively respond to the statement; you think the School Resource Officer at your school helps prevent the crime of weapon possession from being committed at school. Of those students who responded to the statement, the results are presented in Table 20.

The students' SRO prevents the crime of weapon possession response distribution percentages for schools one through six and the school district overall is shown in Appendix L, Chart 7. The distribution across schools revealed that School One had the

high of 53.0% with the other schools between School Four's 33.7% and six's 45.7% and the school district overall was 40.6% Students agreeing ranged between School Five's 18.2% and School Three's 39.6% and the district overall was 27.9%. Alternatively, students responding disagree ranged from 3.5% to 10.9% and the school district overall was 7.9%. Students who strongly disagreed ranged from 2.1% through 10.9% with the district overall being 4.8%.

The results for ordinal logistic regression testing hypothesis two (crime of weapon possession) rendered a chi-square value of 39.477 and an observed significance level of 0.018 (see Table 22). It suggests that the logistic model can explain the variance of the dependent variable based on the independent variables, not random error and the model with predictors is better than the model without predictors.

The Pearson and Deviance Goodness-of-fit results were 0.134 and 0.999 respectively (see Table 22), which suggests that the model fits the data. The pseudo R square values determined by Cox & Snell, Nagelkerke, and McFadden values are 0.074, 0.080, and 0.030 respectively (see Table 22). The pseudo R square analysis showed the strength of association was moderately low and the percentage of variance explained was slightly over 8%.

The independent variables statistically significant (see Table 22) in this analysis are friends' crime history, class standing of freshman, and School Five. The p values were 0.015, 0.021, and 0.037 respectively. The result of the ordinal logistic regression reveals three independent variables with a $p < 0.05$. Therefore, the null hypothesis is rejected. We can surmise that the students' perception of the SRO as a deterrent to the

crime of weapon possession on school campuses is influenced by the friends' crime history, class standing, and school variables.

The odds ratio (see Table 22) for friends' crime history and class standing of freshman of 1.631 and 3.986 respectively would be interpreted to show that students who have friends who have been in trouble with the law or are in the freshman class standing category are 1.631 and 3.986 times respectively more likely to disagree that the SRO is a deterrent to the crime of weapon possession on their school campus. The odds ratio for School Five was 0.420. This shows that students in School Five are 0.420 times more likely to agree that the SRO is a deterrent to the crime of weapon possession on school campuses.

Table 22: Ordinal Logistic Regression Model Parameter Estimates, Odds Ratio, and Model Fitting Information for Weapon Possession

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Weapon Possession = 1	0.316	0.496	0.407	1	0.523	-0.655	1.288	1.372	0.519	3.624
Weapon Possession = 2	1.557	0.500	9.681	1	0.002	0.576	2.538	4.745	1.779	12.653
Weapon Possession = 3	2.815	0.513	30.104	1	0.000	1.809	3.821	16.695	6.107	45.636
Family Crime Hist-Yes	0.279	0.182	2.338	1	0.126	-0.079	0.636	1.322	0.924	1.889
Family Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
African-American	-0.081	0.385	0.044	1	0.833	-0.835	0.673	0.922	0.434	1.959
Hispanic	0.028	0.298	0.009	1	0.924	-0.556	0.613	1.029	0.573	1.846
Caucasian	0.070	0.296	0.056	1	0.812	-0.510	0.651	1.073	0.600	1.918
Other	0[a]	.	.	0	.	.	.	1.000		
Male	-0.064	0.171	0.141	1	0.707	-0.400	0.271	0.938	0.670	1.312
Female	0[a]	.	.	0	.	.	.	1.000		
Free lunch-Yes	0.089	0.202	0.196	1	0.658	-0.307	0.486	1.094	0.736	1.625
Free lunch-No	0[a]	.	.	0	.	.	.	1.000		
Friends' Crime Hist-Yes	0.489	0.201	5.896	1	0.015	0.094	0.884	1.631	1.099	2.420
Friends' Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
Student Past Crime-Yes	0.203	0.231	0.771	1	0.380	-0.250	0.657	1.225	0.779	1.929
Student Past Crime-No	0[a]	.	.	0	.	.	.	1.000		
SRO Exp under 5 years	-0.073	0.251	0.086	1	0.770	-0.565	0.418	0.929	0.568	1.519
SRO Exp 5-7 years	0.230	0.257	0.798	1	0.372	-0.274	0.733	1.258	0.760	2.082
SRO Exp 8-10 years	0.034	0.262	0.017	1	0.896	-0.480	0.549	1.035	0.619	1.731
SRO Exp Over 10 years	0[a]	.	.	0	.	.	.	1.000		
Class - Freshman	1.383	0.597	5.363	1	0.021	0.212	2.553	3.986	1.237	12.849
Class - Sophomore	0.112	0.480	0.055	1	0.815	-0.829	1.054	1.119	0.436	2.869

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Class - Junior	-0.057	0.339	0.028	1	0.867	-0.721	0.608	0.945	0.486	1.836
Class - Senior	0[a]	.	.	0	.	.	.	1.000		
Age 14 and below	-1.236	0.693	3.176	1	0.075	-2.595	0.123	0.291	0.075	1.131
Age 15	-0.204	0.556	0.135	1	0.713	-1.294	0.886	0.815	0.274	2.424
Age 16	0.153	0.428	0.127	1	0.721	-0.686	0.991	1.165	0.504	2.694
Age 17	0.295	0.315	0.875	1	0.350	-0.323	0.913	1.343	0.724	2.491
Age 18 and Above	0[a]	.	.	0	.	.	.	1.000		
School One	0.087	0.332	0.068	1	0.794	-0.564	0.737	1.090	0.569	2.089
School Two	-0.202	0.339	0.355	1	0.551	-0.867	0.463	0.817	0.420	1.588
School Three	-0.008	0.412	0.000	1	0.985	-0.814	0.799	0.992	0.443	2.223
School Four	0.433	0.373	1.347	1	0.246	-0.298	1.165	1.542	0.742	3.207
School Five	-0.868	0.415	4.367	1	0.037	-1.682	-0.054	0.420	0.186	0.948
School Six	0[a]	.	.	0	.	.	.	1.000		

Model Fitting Dependent Variable			-2 Log Likelihood	Chi-Square	*df*	P Value	R Square
Homicide	Model	Intercept Only	1265.351				
		Final	1225.874	39.477	23	.018	
	Goodness-of-Fit	Pearson		1390.307	1333	.134	
		Deviance		1172.017	1333	.999	
	Pseudo R-Square	Cox and Snell					.074
		Nagelkerke					.080
		McFadden					.030

Link function: Logit.

a. This parameter is set to zero because it is redundant.

Hypothesis Two (Bullying)

Hypothesis two states students' perception of the SRO as a deterrent to the FBI Part II offenses (bullying) on school campuses is influenced by the student demographics and personal attributes including age, race, class standing, income, school attended, past crimes, exposures to a SRO, friends' crime history, and family crime history. Hypothesis two examined two types of bullying; bullying without force and bullying with force. School One, Two, Three, Four, Five, and Six had 165, 141, 48, 101, 66, and 46 students respectively respond to the statements; you think the School Resource Officer at your school helps prevent bullying without force from being committed at school and you think the School Resource Officer at your school helps prevent bullying with force from being committed at school. Of the students who completed the bullying without force section, the student response percentages are listed in Table 20.

Appendix L, Chart 8 represents the students' SRO prevents the bullying without force response distribution percentages for schools one through six and the school district overall. The distribution across schools revealed that all schools had the lowest strongly disagree responses. School One had the high of 31.8% to a low from School Three of 12.5% and the school district overall was 24.0% Students agreeing ranged between School Six's 15.2% and School Three's 31.3% and the district overall was 24.3%. Alternatively, students responding disagree ranged from 10.6% to 25.5% and the school district overall was 18.0%. Students who strongly disagreed ranged from 5.7% through 13.0% with the district overall being 8.8%. Bullying without force had the largest number of students respond in the disagree and strongly disagree category compared to

all other hypotheses. The percentages were closer, but the number of responses in the agree and strongly agree categories were larger than disagree and strongly disagree total.

The students replied in a similar fashion to the bullying with force segment, but the percentages were higher in the strongly agree and agree categories. Of those students who responded to the statement, the results are shown in Table 20.

The students' SRO prevents bullying with force response distribution percentages for schools one through six and the school district overall are shown in Appendix L, Chart 9. The distribution across schools revealed that all schools had a slightly higher number of students respond in the strongly agree category compared to bullying without force. The high was School Five at 40.9% to the low at School Three's 22.9% and the school district overall was 31.2%. Students' agreeing ranged between 24.2% and 33.1% and the district overall was 27.3%. Alternatively, students responding disagree ranged from 0.0% to 18.8% and the school district overall was 12.0%. Students who strongly disagreed ranged from 1.5% through 7.9% with the district overall being 5.1%.

The results for ordinal logistic regression testing hypothesis two (crime of bullying without force) rendered a chi-square value of 59.862 and an observed significance level of less than 0.0005 (see Table 23). It suggests that the logistic model can explain the variance of the dependent variable based on the independent variables, not random error and the model with predictors is better than the model without predictors.

The Pearson and Deviance Goodness-of-fit results were 0.449 and 0.970 respectively (see Table 23), which suggests that the model fits the data. The pseudo R square values determined by Cox & Snell, Nagelkerke, and McFadden values are 0.110,

0.118, and 0.042 respectively (see Table 23). The pseudo R square analysis showed the strength of association was moderately low and the percentage of variance explained was slightly over 11%.

The independent variables statistically significant in this analysis are SRO exposure 5-7 years, class standing of freshman, age category 14 and below, and School Five (see Table 23). The p values were 0.035, 0.042, 0.048 and 0.037 respectively. The result of the ordinal logistic regression reveals four independent variables with a $p < 0.05$. Therefore, the null hypothesis is rejected and concludes that the students' perception of the SRO as a deterrent to incidents of bullying without force is influenced by the SRO exposure, class standing, age, and school variables.

The odds ratio (see Table 23) for SRO exposure 5-7 years and class standing of freshman of 1.707 and 3.389 respectively would be interpreted to show that students in the SRO exposure 5-7 years and class standing of freshman categories are 1.707 and 3.389 respectively times more likely to disagree that the SRO is a deterrent to bullying without force on their school campus. The odds ratio for categories age 14 and below and School Five are 0.256 and 0.434 respectively. This indicates that students in the categories age 14 and below or School Five are 0.256 and 0.434 times respectively more likely to agree that the SRO is a deterrent to bullying without force on school campuses.

Table 23: Ordinal Logistic Regression Model Parameter Estimates, Odds Ratio, and Model Fitting for Bullying without Force

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Bullying without Force = 1	-0.354	0.486	0.531	1	0.466	-1.306	0.598	0.702	0.271	1.818
Bullying without Force = 2	0.827	0.486	2.899	1	0.089	-0.125	1.780	2.287	0.882	5.930
Bullying without Force = 3	2.035	0.493	17.033	1	0.000	1.069	3.002	7.656	2.912	20.127
Family Crime Hist-Yes	0.307	0.180	2.923	1	0.087	-0.045	0.659	1.359	0.956	1.932
Family Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
African-American	0.080	0.375	0.046	1	0.831	-0.654	0.815	1.083	0.520	2.259
Hispanic	-0.054	0.291	0.035	1	0.852	-0.625	0.516	0.947	0.535	1.676
Caucasian	0.225	0.289	0.602	1	0.438	-0.343	0.792	1.252	0.710	2.208
Other	0[a]	.	.	0	.	.	.	1.000		
Male	-0.299	0.168	3.162	1	0.075	-0.628	0.031	0.742	0.534	1.031
Female	0[a]	.	.	0	.	.	.	1.000		
Free lunch-Yes	0.328	0.199	2.706	1	0.100	-0.063	0.718	1.388	0.939	2.050
Free lunch-No	0[a]	.	.	0	.	.	.	1.000		
Friends' Crime Hist-Yes	0.311	0.196	2.502	1	0.114	-0.074	0.695	1.364	0.928	2.004
Friends' Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
Student Past Crime-Yes	0.053	0.230	0.054	1	0.816	-0.397	0.503	1.055	0.673	1.654
Student Past Crime-No	0[a]	.	.	0	.	.	.	1.000		
SRO Exp under 5 years	0.163	0.245	0.440	1	0.507	-0.318	0.643	1.177	0.728	1.903
SRO Exp 5-7 years	0.535	0.253	4.458	1	0.035	0.038	1.031	1.707	1.039	2.805
SRO Exp 8-10 years	0.170	0.257	0.438	1	0.508	-0.334	0.675	1.186	0.716	1.964
SRO Exp Over 10 years	0[a]	.	.	0	.	.	.	1.000		
Class - Freshman	1.220	0.601	4.128	1	0.042	0.043	2.398	3.389	1.044	10.999
Class - Sophomore	-0.082	0.472	0.030	1	0.863	-1.007	0.843	0.922	0.365	2.324

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Class - Junior	-0.145	0.334	0.189	1	0.664	-0.800	0.509	0.865	0.449	1.664
Class - Senior	0[a]	.	.	0	.	.	.	1.000		
Age 14 and below	-1.361	0.690	3.896	1	0.048	-2.712	-0.009	0.256	0.066	0.991
Age 15	0.003	0.544	0.000	1	0.996	-1.063	1.068	1.003	0.345	2.911
Age 16	0.307	0.419	0.538	1	0.463	-0.514	1.128	1.360	0.598	3.091
Age 17	0.250	0.308	0.659	1	0.417	-0.354	0.854	1.284	0.702	2.350
Age 18 and Above	0[a]	.	.	0	.	.	.	1.000		
School One	0.558	0.326	2.937	1	0.087	-0.080	1.197	1.748	0.923	3.311
School Two	-0.356	0.331	1.158	1	0.282	-1.006	0.293	0.700	0.366	1.340
School Three	0.455	0.404	1.272	1	0.259	-0.336	1.247	1.577	0.715	3.479
School Four	0.210	0.367	0.327	1	0.568	-0.510	0.930	1.234	0.600	2.535
School Five	-0.834	0.401	4.328	1	0.037	-1.620	-0.048	0.434	0.198	0.953
School Six	0[a]	.	.	0	.	.	.	1.000		

Model Fitting Dependent Variable			-2 Log Likelihood	Chi-Square	*df*	P Value	R Square
Homicide	Model	Intercept Only	1354.413				
		Final	1294.551	59.862	23	.000	
	Goodness-of-Fit	Pearson		1338.923	1333	.449	
		Deviance		1237.686	1333	.970	
	Pseudo R-Square	Cox and Snell					.110
		Nagelkerke					.118
		McFadden					.042

Link function: Logit.

a. This parameter is set to zero because it is redundant.

The results for ordinal logistic regression testing hypothesis two (bullying with force) rendered a chi-square value of 46.426 and an observed significance level of less than 0.0005 (see Table 24). It suggests that the logistic model can explain the variance of the dependent variable based on the independent variables, not random error and the model with predictors is better than the model without predictors.

The Pearson and Deviance Goodness-of-fit results were 0.158 and 0.958 respectively (see Table 24), which suggests that the model fits the data. The pseudo R square values determined by Cox & Snell, Nagelkerke, and McFadden values are 0.087, 0.093, and 0.033 respectively (see Table 24). The pseudo R square analysis showed the strength of association was moderately low and the percentage of variance explained was slightly over 9%.

The independent variables statistically significant for bullying with force (see Table 24) are friends' crime history and School One. The p values were 0.036 and 0.024 respectively. The result of the ordinal logistic regression reveals two independent variables with a $p < 0.05$. Therefore, the null hypothesis is rejected. We surmise that the students' perception of the SRO as a deterrent to the crime of bullying with force on school campuses is influenced by the friends' crime history and school variables.

The odds ratio (see Table 24) for friends' crime history of 1.510 would be interpreted to show that students who have friends who have been in trouble with the law are 1.510 times more likely to disagree that the SRO is a deterrent to bullying with force on their school campus. The odds ratio for School One was 2.097. This shows that students in School One are 2.097 times more likely to disagree that the SRO is a deterrent to bullying with force on school campuses.

Table 24: Ordinal Logistic Regression Model Parameter Estimates, Odds Ratio, and Model Fitting for Bullying with Force

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Bullying with Force = 1	-0.284	0.487	0.341	1	0.559	-1.238	0.669	0.753	0.290	1.953
Bullying with Force = 2	0.957	0.488	3.843	1	0.050	0.000	1.914	2.604	1.000	6.777
Bullying with Force = 3	2.300	0.498	21.342	1	0.000	1.324	3.276	9.975	3.759	26.469
Family Crime Hist-Yes	0.129	0.179	0.521	1	0.470	-0.222	0.480	1.138	0.801	1.616
Family Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
African-American	0.297	0.375	0.629	1	0.428	-0.437	1.032	1.346	0.646	2.806
Hispanic	0.086	0.292	0.086	1	0.769	-0.487	0.658	1.089	0.615	1.930
Caucasian	-0.015	0.290	0.003	1	0.960	-0.582	0.553	0.986	0.559	1.738
Other	0[a]	.	.	0	.	.	.	1.000		
Male	-0.248	0.168	2.168	1	0.141	-0.578	0.082	0.780	0.561	1.086
Female	0[a]	.	.	0	.	.	.	1.000		
Free lunch-Yes	0.001	0.199	0.000	1	0.995	-0.388	0.391	1.001	0.678	1.478
Free lunch-No	0[a]	.	.	0	.	.	.	1.000		
Friends' Crime Hist-Yes	0.412	0.197	4.376	1	0.036	0.026	0.798	1.510	1.026	2.221
Friends' Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
Student Past Crime-Yes	0.328	0.229	2.045	1	0.153	-0.121	0.777	1.388	0.886	2.175
Student Past Crime-No	0[a]	.	.	0	.	.	.	1.000		
SRO Exp under 5 years	-0.036	0.246	0.022	1	0.883	-0.519	0.446	0.964	0.595	1.562
SRO Exp 5-7 years	0.318	0.253	1.575	1	0.209	-0.178	0.814	1.374	0.837	2.256
SRO Exp 8-10 years	0.193	0.258	0.558	1	0.455	-0.313	0.699	1.213	0.731	2.011
SRO Exp Over 10 years	0[a]	.	.	0	.	.	.	1.000		
Class - Freshman	0.794	0.586	1.835	1	0.176	-0.355	1.942	2.211	0.701	6.971
Class - Sophomore	0.053	0.471	0.013	1	0.910	-0.870	0.976	1.054	0.419	2.653

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Class - Junior	-0.277	0.334	0.686	1	0.408	-0.932	0.378	0.758	0.394	1.460
Class - Senior	0[a]	.	.	0	.	.	.	1.000		
Age 14 and below	-1.249	0.678	3.390	1	0.066	-2.578	0.081	0.287	0.076	1.084
Age 15	-0.370	0.543	0.463	1	0.496	-1.434	0.695	0.691	0.238	2.004
Age 16	0.165	0.419	0.155	1	0.694	-0.656	0.986	1.179	0.519	2.679
Age 17	-0.144	0.308	0.220	1	0.639	-0.748	0.459	0.865	0.473	1.583
Age 18 and Above	0[a]	.	.	0	.	.	.	1.000		
School One	0.741	0.329	5.072	1	0.024	0.096	1.385	2.097	1.101	3.995
School Two	0.044	0.335	0.018	1	0.895	-0.612	0.700	1.045	0.542	2.014
School Three	0.696	0.406	2.937	1	0.087	-0.100	1.491	2.005	0.905	4.442
School Four	0.412	0.370	1.238	1	0.266	-0.314	1.137	1.510	0.731	3.118
School Five	-0.621	0.406	2.346	1	0.126	-1.416	0.174	0.537	0.243	1.190
School Six	0[a]	.	.	0	.	.	.	1.000		

Model Fitting Dependent Variable			-2 Log Likelihood	Chi-Square	*df*	P Value	R Square
Homicide	Model	Intercept Only	1340.774				
		Final	1294.348	46.426	23	.003	
	Goodness-of-Fit	Pearson		1384.735	1333	.158	
		Deviance		1244.885	1333	.958	
	Pseudo R-Square	Cox and Snell					.087
		Nagelkerke					.093
		McFadden					.033

Link function: Logit.

a. This parameter is set to zero because it is redundant.

Hypothesis Two (Sexual Assault)

Hypothesis two states students' perception of the SRO as a deterrent to the FBI Part II offenses (crime of sexual assault) on school campuses is influenced by the student demographics and personal attributes including age, race, class standing, income, school attended, past crimes, exposures to a SRO, friends' crime history, and family crime history. School One, Two, Three, Four, Five, and Six had 165, 141, 48, 101, 66, and 46 students respectively respond to the statement; you think the School Resource Officer at your school helps prevent sexual assault from being committed at school. The result percentages for those students who responded to the statement are shown in Table 20.

Appendix L, Chart 10 presents the students' SRO prevents the crime of sexual assault response distribution percentages for schools one through six and the school district overall. The students who responded strongly agree for the school district was 42.0% including a low of 33.3% for School Three to a high of 54.5% for School Five. Only two schools were below 35.0%. There were a high of 30.5% of students respond with agree in School Two to a low of 21.2% at School Five and the overall for the district was 25.0%. Students responding disagree ranged from 4.3% to 13.9% and the school district overall was 8.6%. Students who strongly disagreed ranged from 0.7% through 6.5% with the district overall of 3.9%.

The results for ordinal logistic regression testing hypothesis two (sexual assault) rendered a chi-square value of 63.404 and an observed significance level of less than 0.0005 (see Table 25). It suggests that the logistic model can explain the variance of the

dependent variable based on the independent variables, not random error and the model with predictors is better than the model without predictors.

The Pearson and Deviance Goodness-of-fit results were 0.164 and 1.000 respectively (see Table 25), which suggests that the model fits the data. The pseudo R square values determined by Cox & Snell, Nagelkerke, and McFadden values are 0.116, 0.126, and 0.048 respectively (see Table 25). The pseudo R square analysis showed the strength of association was moderately low and the percentage of variance explained was slightly over 12%.

The independent variables statistically significant in this analysis are friends' crime history, class standing of freshman, and School Five (see Table 25). The p values were 0.000, 0.005, and 0.003 respectively. The result of the ordinal logistic regression reveals three independent variables with a $p < 0.05$. Therefore, the null hypothesis is rejected. We can conclude that the students' perception of the SRO as a deterrent to the crime of sexual assault on school campuses is influenced by the friends' crime history, class standing, and school variables.

An odds ratio (see Table 25) for friends' crime history and class standing of freshman of 2.281 and 5.342 respectively would be interpreted to show that students in either the friends' crime history or class standing of freshman categories are 2.281 and 5.342 respectively times more likely to disagree that the SRO is a deterrent to sexual assault on their school campus. The odds ratio for School Five was 0.280. Therefore, students in School Five are 0.280 times respectively more likely to agree that the SRO is a deterrent to sexual assault on school campuses.

Table 25: Ordinal Logistic Regression Model Parameter Estimates, Odds Ratio, and Model Fitting Information for Sexual Assault

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Sexual Assault = 1	-0.067	0.497	0.018	1	0.893	-1.042	0.908	0.935	0.353	2.480
Sexual Assault = 2	1.086	0.500	4.722	1	0.030	0.106	2.066	2.962	1.112	7.890
Sexual Assault = 3	2.441	0.511	22.810	1	0.000	1.440	3.443	11.489	4.219	31.291
Family Crime Hist-Yes	0.094	0.183	0.265	1	0.606	-0.265	0.453	1.099	0.768	1.573
Family Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
African-American	0.271	0.379	0.513	1	0.474	-0.471	1.013	1.311	0.624	2.755
Hispanic	-0.263	0.297	0.785	1	0.376	-0.845	0.319	0.769	0.429	1.376
Caucasian	-0.403	0.296	1.860	1	0.173	-0.983	0.176	0.668	0.374	1.193
Other	0[a]	.	.	0	.	.	.	1.000		
Male	-0.298	0.173	2.953	1	0.086	-0.637	0.042	0.743	0.529	1.043
Female	0[a]	.	.	0	.	.	.	1.000		
Free lunch-Yes	0.147	0.203	0.523	1	0.470	-0.251	0.545	1.158	0.778	1.725
Free lunch-No	0[a]	.	.	0	.	.	.	1.000		
Friends' Crime Hist-Yes	0.824	0.205	16.179	1	0.000	0.423	1.226	2.281	1.526	3.408
Friends' Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
Student Past Crime-Yes	-0.074	0.234	0.101	1	0.751	-0.534	0.385	0.928	0.586	1.470
Student Past Crime-No	0[a]	.	.	0	.	.	.	1.000		
SRO Exp under 5 years	-0.006	0.252	0.001	1	0.980	-0.501	0.488	0.994	0.606	1.629
SRO Exp 5-7 years	0.194	0.259	0.563	1	0.453	-0.313	0.701	1.214	0.731	2.017
SRO Exp 8-10 years	-0.211	0.267	0.628	1	0.428	-0.735	0.312	0.809	0.480	1.366
SRO Exp Over 10 years	0[a]	.	.	0	.	.	.	1.000		
Class - Freshman	1.676	0.600	7.808	1	0.005	0.500	2.851	5.342	1.649	17.305
Class - Sophomore	0.501	0.481	1.086	1	0.297	-0.441	1.443	1.650	0.643	4.235

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Class - Junior	0.398	0.340	1.372	1	0.241	-0.268	1.065	1.489	0.765	2.900
Class - Senior	0[a]	.	.	0	.	.	.	1.000		
Age 14 and below	-1.239	0.694	3.191	1	0.074	-2.599	0.121	0.290	0.074	1.128
Age 15	-0.522	0.558	0.875	1	0.350	-1.614	0.571	0.594	0.199	1.770
Age 16	-0.127	0.431	0.087	1	0.768	-0.973	0.718	0.881	0.378	2.051
Age 17	0.194	0.320	0.368	1	0.544	-0.433	0.822	1.214	0.648	2.274
Age 18 and Above	0[a]	.	.	0	.	.	.	1.000		
School One	0.085	0.334	0.064	1	0.800	-0.571	0.740	1.088	0.565	2.095
School Two	-0.466	0.344	1.833	1	0.176	-1.140	0.209	0.628	0.320	1.232
School Three	0.223	0.411	0.295	1	0.587	-0.582	1.028	1.250	0.559	2.794
School Four	0.231	0.376	0.378	1	0.539	-0.506	0.968	1.260	0.603	2.633
School Five	-1.272	0.424	8.991	1	0.003	-2.103	-0.441	0.280	0.122	0.644
School Six	0[a]	.	.	0	.	.	.	1.000		

Model Fitting Dependent Variable			-2 Log Likelihood	Chi-Square	*df*	P Value	R Square
Homicide	Model	Intercept Only	1276.054				
		Final	1212.650	63.404	23	.000	
	Goodness-of-Fit	Pearson		1383.357	1333	.164	
		Deviance		1160.755	1333	1.000	
	Pseudo R-Square	Cox and Snell					.116
		Nagelkerke					.126
		McFadden					.048

Link function: Logit.

a. This parameter is set to zero because it is redundant.

Hypothesis Two (Marijuana Use)

Hypothesis two states students' perception of the SRO as a deterrent to the FBI Part II offenses (crime of marijuana use) on school campuses is influenced by the student demographics and personal attributes including age, race, class standing, income, school attended, past crimes, exposures to a SRO, friends' crime history, and family crime history. School One, Two, Three, Four, Five, and Six had 165, 141, 48, 101, 66, and 46 students respectively respond to the statement; you think the School Resource Officer at your school helps prevent the crime of marijuana use from being committed at school. Of those students who responded to the statement, the results are listed in Table 20.

The distribution for the student responses for hypothesis two (marijuana use) is displayed in Appendix L, Chart 11. The students' response, strongly agree, varied from a low of 33.0% in School Four to a high of 51.5% in School Five with the school district overall of 40.8%. Schools with Schools with students agreeing were all close to the district overall of 27.4% except for School Six which was 15.2%. Alternatively, schools with students responding disagree were close to the district overall of 8.3% except for School One's 15.2%. Schools with students who strongly disagreed ranged from 2.1% through 10.9% with the district overall of 3.9%.

The results for ordinal logistic regression testing hypothesis two (marijuana use) rendered a chi-square value of 51.047 and an observed significance level of 0.001 (see Table 26). It suggests that the logistic model can explain the variance of the dependent variable based on the independent variables, not random error and the model with predictors is better than the model without predictors.

The Pearson and Deviance Goodness-of-fit results were 0.346 and 1.000 respectively (see Table 26), which suggests that the model fits the data. The pseudo R square values determined by Cox & Snell, Nagelkerke, and McFadden values are 0.095, 0.103, and 0.039 respectively (see Table 26). The pseudo R square analysis showed the strength of association was moderately low and the percentage of variance explained was slightly over 10%.

The independent variables statistically significant (see Table 26) in this hypothesis test are friends' crime history, SRO exposure under 5 years, and class standing of freshman. The p values were 0.019, 0.042, and 0.039 respectively. The result of the ordinal logistic regression reveals three independent variables with a $p < 0.05$. Therefore, the null hypothesis is rejected and can surmise that the students' perception of the SRO as a deterrent to the crime of marijuana use on school campuses in influenced by the friends' crime history, SRO exposure, and class standing variables.

The odds ratio (see Table 26) for friends' crime history and class standing of freshman of 1.611 and 3.440 respectively would be interpreted to show that students who are in either the friends' crime history or class standing of freshman categories are 1.611 and 3.440 respectively times more likely to disagree that the SRO is a deterrent to marijuana use on their school campus. The odds ratio for SRO exposure under 5 years was 0.597. This signifies that students in SRO exposure under 5 years are 0.597 times respectively more likely to agree that the SRO is a deterrent to marijuana use on school campuses.

Table 26: Ordinal Logistic Regression Model Parameter Estimates, Odds Ratio, and Model Fitting Information for Marijuana Use

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Marijuana Use = 1	0.378	0.501	0.570	1	0.450	-0.604	1.360	1.460	0.547	3.897
Marijuana Use = 2	1.611	0.506	10.135	1	0.001	0.619	2.603	5.008	1.857	13.503
Marijuana Use = 3	2.915	0.519	31.507	1	0.000	1.897	3.933	18.444	6.666	51.036
Family Crime Hist-Yes	0.259	0.183	1.998	1	0.158	-0.100	0.617	1.295	0.905	1.854
Family Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
African-American	0.238	0.383	0.387	1	0.534	-0.512	0.988	1.269	0.599	2.687
Hispanic	0.068	0.299	0.052	1	0.820	-0.517	0.653	1.070	0.596	1.921
Caucasian	-0.020	0.296	0.004	1	0.947	-0.599	0.560	0.981	0.549	1.750
Other	0[a]	.	.	0	.	.	.	1.000		
Male	-0.009	0.172	0.003	1	0.958	-0.346	0.328	0.991	0.707	1.388
Female	0[a]	.	.	0	.	.	.	1.000		
Free lunch-Yes	-0.067	0.203	0.109	1	0.742	-0.465	0.331	0.935	0.628	1.392
Free lunch-No	0[a]	.	.	0	.	.	.	1.000		
Friends' Crime Hist-Yes	0.477	0.203	5.538	1	0.019	0.080	0.873	1.611	1.083	2.395
Friends' Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
Student Past Crime-Yes	0.269	0.233	1.337	1	0.248	-0.187	0.725	1.309	0.829	2.064
Student Past Crime-No	0[a]	.	.	0	.	.	.	1.000		
SRO Exp under 5 years	-0.515	0.253	4.153	1	0.042	-1.011	-0.020	0.597	0.364	0.980
SRO Exp 5-7 years	-0.056	0.257	0.048	1	0.827	-0.560	0.447	0.945	0.571	1.564
SRO Exp 8-10 years	-0.329	0.263	1.570	1	0.210	-0.845	0.186	0.719	0.430	1.204
SRO Exp Over 10 years	0[a]	.	.	0	.	.	.	1.000		
Class - Freshman	1.236	0.599	4.257	1	0.039	0.062	2.409	3.440	1.064	11.127
Class - Sophomore	0.381	0.486	0.614	1	0.433	-0.572	1.334	1.464	0.564	3.796

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Class - Junior	-0.473	0.348	1.845	1	0.174	-1.156	0.210	0.623	0.315	1.233
Class - Senior	0[a]	.	.	0	.	.	.	1.000		
Age 14 and below	-0.639	0.700	0.835	1	0.361	-2.010	0.732	0.528	0.134	2.079
Age 15	0.120	0.571	0.044	1	0.834	-1.000	1.239	1.127	0.368	3.452
Age 16	0.485	0.445	1.187	1	0.276	-0.387	1.356	1.623	0.679	3.882
Age 17	0.627	0.326	3.700	1	0.054	-0.012	1.266	1.872	0.988	3.546
Age 18 and Above	0[a]	.	.	0	.	.	.	1.000		
School One	0.448	0.334	1.794	1	0.180	-0.207	1.103	1.565	0.813	3.014
School Two	-0.325	0.342	0.903	1	0.342	-0.996	0.346	0.722	0.369	1.413
School Three	0.057	0.414	0.019	1	0.890	-0.754	0.868	1.059	0.470	2.383
School Four	0.443	0.377	1.385	1	0.239	-0.295	1.182	1.558	0.744	3.260
School Five	-0.767	0.420	3.335	1	0.068	-1.590	0.056	0.465	0.204	1.058
School Six	0[a]	.	.	0	.	.	.	1.000		

Model Fitting Dependent Variable			-2 Log Likelihood	Chi-Square	*df*	P Value	R Square
Homicide	Model	Intercept Only	1259.901				
		Final	1208.855	51.047	23	.001	
	Goodness-of-Fit	Pearson		1349.823	1330	.346	
		Deviance		1156.148	1330	1.000	
	Pseudo R-Square	Cox and Snell					.095
		Nagelkerke					.103
		McFadden					.039

Link function: Logit.

a. This parameter is set to zero because it is redundant.

Hypothesis Two (Cocaine Use)

Hypothesis two states students' perception of the SRO as a deterrent to the FBI Part II offenses (crime of cocaine use) on school campuses is influenced by the student demographics and personal attributes including age, race, class standing, income, school attended, past crimes, exposures to a SRO, friends' crime history, and family crime history. School One, Two, Three, Four, Five, and Six had 165, 141, 48, 100, 66, and 46 students respectively respond to the statement; you think the School Resource Officer at your school helps prevent the crime of cocaine use from being committed at school. Of those students who responded to the statement, the results are shown in Table 20.

Appendix L, Chart 12 displays the distribution for the students' responses to hypothesis two (cocaine use). The distribution for students' strongly agreeing for the school district was 44.7% including a low of 36.0% for School Four to a high of 54.5% for School Five. Only two schools were below 40%. Students who answered agree varied from School Six's 10.9% to School Three's 33.3% and the district overall was 20.4%. Alternatively, students responding disagree ranged from 3.0% to 9.7% and the school district overall was 6.4%. Students who strongly disagreed ranged from 1.2% through 10.9% with the district overall of 3.2%.

The results for ordinal logistic regression testing hypothesis two (cocaine use) rendered a chi-square value of 44.418 and an observed significance level of 0.005 (see Table 27). It suggests that the logistic model can explain the variance of the dependent variable based on the independent variables, not random error and the model with predictors is better than the model without predictors.

The Pearson and Deviance Goodness-of-fit results were 0.508 and 1.000 respectively (see Table 27), which suggests that the model fits the data. The pseudo R square values determined by Cox & Snell, Nagelkerke, and McFadden values are 0.083, 0.091, and 0.035 respectively (see Table 27). The pseudo R square analysis showed the strength of association was moderately low and the percentage of variance explained was slightly over 9%.

The independent variable (see Table 27) that was statistically significant in this analysis was friends' crime history with a p value of 0.009. The result of the ordinal logistic regression reveals one independent variable with a $p < 0.05$. Therefore, the null hypothesis is rejected. We can conclude that the students' perception of the SRO as a deterrent to crime of cocaine use on school campuses is influenced by the friends' crime history variable.

The odds ratio (see Table 27) for friends' crime history of 1.712 would be interpreted to show that students who have friends who have been in trouble with the law are 1.712 times more likely to disagree that the SRO is a deterrent to cocaine use on their school campus.

Table 27: Ordinal Logistic Regression Model Parameter Estimates, Odds Ratio, and SPSS Model Fitting Information for Cocaine Use

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Cocaine Use = 1	0.129	0.505	0.065	1	0.799	-0.860	1.118	1.137	0.423	3.058
Cocaine Use = 2	1.317	0.508	6.716	1	0.010	0.321	2.313	3.732	1.378	10.103
Cocaine Use = 3	2.729	0.524	27.164	1	0.000	1.703	3.755	15.314	5.488	42.730
Family Crime Hist-Yes	0.111	0.185	0.361	1	0.548	-0.252	0.475	1.118	0.777	1.608
Family Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
African-American	0.256	0.385	0.443	1	0.506	-0.499	1.012	1.292	0.607	2.750
Hispanic	-0.024	0.303	0.006	1	0.936	-0.617	0.569	0.976	0.540	1.766
Caucasian	-0.097	0.299	0.105	1	0.746	-0.684	0.490	0.908	0.505	1.633
Other	0[a]	.	.	0	.	.	.	1.000		
Male	-0.274	0.175	2.454	1	0.117	-0.617	0.069	0.760	0.540	1.071
Female	0[a]	.	.	0	.	.	.	1.000		
Free lunch-Yes	-0.088	0.205	0.181	1	0.670	-0.490	0.315	0.916	0.612	1.371
Free lunch-No	0[a]	.	.	0	.	.	.	1.000		
Friends' Crime Hist-Yes	0.537	0.206	6.791	1	0.009	0.133	0.942	1.712	1.142	2.564
Friends' Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
Student Past Crime-Yes	0.234	0.235	0.993	1	0.319	-0.226	0.693	1.263	0.798	2.000
Student Past Crime-No	0[a]	.	.	0	.	.	.	1.000		
SRO Exp under 5 years	-0.415	0.257	2.611	1	0.106	-0.918	0.088	0.660	0.399	1.092
SRO Exp 5-7 years	0.112	0.260	0.186	1	0.667	-0.397	0.621	1.118	0.672	1.861
SRO Exp 8-10 years	-0.066	0.266	0.061	1	0.804	-0.587	0.455	0.936	0.556	1.577
SRO Exp Over 10 years	0[a]	.	.	0	.	.	.	1.000		
Class - Freshman	0.881	0.601	2.148	1	0.143	-0.297	2.059	2.413	0.743	7.840
Class - Sophomore	0.199	0.489	0.165	1	0.685	-0.760	1.157	1.220	0.468	3.180

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Class - Junior	-0.488	0.346	1.986	1	0.159	-1.167	0.191	0.614	0.311	1.210
Class - Senior	0[a]	.	.	0	.	.	.	1.000		
Age 14 and below	-0.773	0.702	1.210	1	0.271	-2.149	0.604	0.462	0.117	1.829
Age 15	-0.048	0.570	0.007	1	0.932	-1.167	1.070	0.953	0.311	2.915
Age 16	0.391	0.439	0.795	1	0.373	-0.468	1.251	1.479	0.626	3.492
Age 17	0.371	0.325	1.300	1	0.254	-0.267	1.008	1.449	0.766	2.740
Age 18 and Above	0[a]	.	.	0	.	.	.	1.000		
School One	0.175	0.336	0.270	1	0.603	-0.484	0.834	1.191	0.616	2.302
School Two	-0.360	0.344	1.090	1	0.297	-1.035	0.316	0.698	0.355	1.371
School Three	0.171	0.415	0.171	1	0.680	-0.641	0.984	1.187	0.527	2.674
School Four	0.323	0.379	0.729	1	0.393	-0.419	1.066	1.382	0.658	2.904
School Five	-0.814	0.424	3.681	1	0.055	-1.646	0.018	0.443	0.193	1.018
School Six	0[a]	.	.	0	.	.	.	1.000		

Model Fitting Dependent Variable			-2 Log Likelihood	Chi-Square	*df*	P Value	R Square
Homicide	Model	Intercept Only	1209.993				
		Final	1165.576	44.418	23	.005	
	Goodness-of-Fit	Pearson		1328.260	1330	.508	
		Deviance		1111.483	1330	1.000	
	Pseudo R-Square	Cox and Snell					.083
		Nagelkerke					.091
		McFadden					.035

Link function: Logit.

a. This parameter is set to zero because it is redundant.

Hypothesis Two (Other Drug Use)

Hypothesis two states students' perception of the SRO as a deterrent to the FBI Part II offenses (crime of other drug use) on school campuses is influenced by the student demographics and personal attributes including age, race, class standing, income, school attended, past crimes, exposures to a SRO, friends' crime history, and family crime history. School One, Two, Three, Four, Five, and Six had 165, 141, 48, 100, 66, and 46 students respectively respond to the statement; you think the School Resource Officer at your school helps prevent the crime of other drug use from being committed at school. The results for the students who responded to the statement are displayed in Table 20.

The students' SRO prevents other drug use response distribution percentages for schools one through six and the school district overall are shown in Appendix L, Chart 13. The distribution across schools revealed that the schools' distribution for all drug related offenses were similar. The strongly agree category contain a high at School Five of 53.0% to the low was school at one with 34.5% and the school district overall was 41.0%. Schools with students responding agree varied between 13.0% and 31.3% and the district overall was 26.9%. Alternatively, students responding disagree ranged from 3.0% to 15.2% and the school district overall was 8.8%. Students who strongly disagreed ranged from 2.4% through 10.9% with the district overall being 4.2%.

The results for ordinal logistic regression testing hypothesis two (other drug use) rendered a chi-square value of 56.123 and an observed significance level of less than 0.0005 (see Table 28). It suggests that the logistic model can explain the variance of the

dependent variable based on the independent variables, not random error and the model with predictors is better than the model without predictors.

The Pearson and Deviance Goodness-of-fit results were 0.476 and 1.000 respectively (see Table 28), which suggests that the model fits the data. The pseudo R square values determined by Cox & Snell, Nagelkerke, and McFadden values are 0.104, 0.112, and 0.042 respectively (see Table 28). The pseudo R square analysis showed the strength of association was moderately low and the percentage of variance explained was slightly over 11%.

The independent variables statistically significant in this analysis (see Table 28) are friends' crime history, class standing of freshman, and School Five. The p values were 0.003, 0.009, and 0.004 respectively. The result of the ordinal logistic regression reveals three independent variables with a $p < 0.05$. Therefore, the null hypothesis is rejected and can deduce that the students' perception of the SRO as a deterrent to the crime of other drug use on school campuses is influenced by the friends' crime history, class standing, and school variables.

An odds ratio (see Table 28) for friends' crime history and class standing of freshman of 1.818 and 4.780 respectively would be interpreted to show that students who have friends who have been in trouble with the law or in the category class standing of freshman are 1.818 and 4.780 times respectively more likely to disagree that the SRO is a deterrent to other drug use on their school campus. The odds ratio for School Five was 0.301. This shows that students in the School Five category are 0.301 times respectively more likely to agree that the SRO is a deterrent to other drug use on school campuses.

Table 28: Ordinal Logistic Regression Model Parameter Estimates, Odds Ratio, and Model Fitting Information for Other Drug Use

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Other Drug Use = 1	0.233	0.501	0.216	1	0.642	-0.750	1.216	1.262	0.472	3.372
Other Drug Use = 2	1.398	0.505	7.660	1	0.006	0.408	2.389	4.048	1.504	10.897
Other Drug Use = 3	2.647	0.516	26.260	1	0.000	1.634	3.659	14.106	5.126	38.818
Family Crime Hist-Yes	0.269	0.184	2.152	1	0.142	-0.091	0.629	1.309	0.913	1.877
Family Crime Hist-No	0	.	.	0	.	.	.	1.000		
African-American	0.097	0.385	0.063	1	0.802	-0.658	0.852	1.102	0.518	2.344
Hispanic	0.049	0.300	0.026	1	0.871	-0.540	0.638	1.050	0.583	1.892
Caucasian	-0.010	0.297	0.001	1	0.974	-0.591	0.572	0.990	0.554	1.771
Other	0[a]	.	.	0	.	.	.	1.000		
Male	-0.078	0.172	0.206	1	0.650	-0.416	0.260	0.925	0.660	1.297
Female	0[a]	.	.	0	.	.	.	1.000		
Free lunch-Yes	-0.108	0.203	0.281	1	0.596	-0.507	0.291	0.898	0.602	1.338
Free lunch-No	0[a]	.	.	0	.	.	.	1.000		
Friends' Crime Hist-Yes	0.598	0.204	8.566	1	0.003	0.197	0.998	1.818	1.218	2.712
Friends' Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
Student Past Crime-Yes	0.137	0.233	0.345	1	0.557	-0.320	0.595	1.147	0.726	1.812
Student Past Crime-No	0[a]	.	.	0	.	.	.	1.000		
SRO Exp under 5 years	-0.429	0.255	2.843	1	0.092	-0.928	0.070	0.651	0.395	1.072
SRO Exp 5-7 years	0.210	0.258	0.665	1	0.415	-0.295	0.715	1.234	0.745	2.044
SRO Exp 8-10 years	-0.092	0.263	0.121	1	0.728	-0.608	0.425	0.913	0.544	1.529
SRO Exp Over 10 years	0[a]	.	.	0	.	.	.	1.000		
Class - Freshman	1.565	0.601	6.782	1	0.009	0.387	2.742	4.780	1.473	15.518
Class - Sophomore	0.607	0.485	1.568	1	0.210	-0.343	1.557	1.835	0.710	4.746

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Class - Junior	0.064	0.342	0.035	1	0.852	-0.606	0.734	1.066	0.545	2.082
Class - Senior	0[a]	.	.	0	.	.	.	1.000		
Age 14 and below	-1.199	0.701	2.929	1	0.087	-2.572	0.174	0.302	0.076	1.190
Age 15	-0.271	0.565	0.229	1	0.632	-1.378	0.837	0.763	0.252	2.310
Age 16	0.177	0.438	0.164	1	0.686	-0.681	1.035	1.194	0.506	2.816
Age 17	0.493	0.326	2.292	1	0.130	-0.145	1.132	1.638	0.865	3.102
Age 18 and Above	0[a]	.	.	0	.	.	.	1.000		
School One	0.208	0.331	0.397	1	0.529	-0.440	0.856	1.232	0.644	2.354
School Two	-0.543	0.340	2.551	1	0.110	-1.209	0.123	0.581	0.298	1.131
School Three	-0.055	0.410	0.018	1	0.894	-0.859	0.749	0.947	0.424	2.116
School Four	0.034	0.375	0.008	1	0.928	-0.700	0.768	1.035	0.497	2.156
School Five	-1.202	0.422	8.113	1	0.004	-2.029	-0.375	0.301	0.131	0.687
School Six	0[a]	.	.	0	.	.	.	1.000		

Model Fitting Dependent Variable			-2 Log Likelihood	Chi-Square	*df*	P Value	R Square
Homicide	Model	Intercept Only	1264.594				
		Final	1208.471	56.123	23	.000	
	Goodness-of-Fit	Pearson		1332.490	1330	.476	
		Deviance		1154.379	1330	1.000	
	Pseudo R-Square	Cox and Snell					.112
		Nagelkerke					.042
		McFadden					.035

Link function: Logit.

a. This parameter is set to zero because it is redundant.

Hypothesis Two (Sale of Marijuana)

Hypothesis two states students' perception of the SRO as a deterrent to the FBI Part II offenses (sale of marijuana) on school campuses is influenced by the student demographics and personal attributes including age, race, class standing, income, school attended, past crimes, exposures to a SRO, friends' crime history, and family crime history. School One, Two, Three, Four, Five, and Six had 164, 141, 48, 101, 66, and 46 students respectively respond to the statement; you think the School Resource Officer at your school helps prevent the sale of marijuana from being committed at school. Of those students who responded to the statement, the results are shown in Table 20.

Appendix L, Chart 14 displays the distribution for the students' responses to hypothesis two (sale of marijuana). The distribution for students' strongly agreeing for the school district was 42.8% including a low of 35.6% for School Four to a high of 53.0% for School Five. Only two schools were below 40%. Students who answered agree varied from School Six's 15.2% to School Three's 31.3% and the district overall was 23.9%. Alternatively, students responding disagree ranged from 5.0% to 11.0% and the school district overall was 8.3%. Students who strongly disagreed ranged from 2.4% through 10.9% with the district overall of 5.1%.

The results for ordinal logistic regression testing hypothesis two (sale of marijuana) rendered a chi-square value of 41.503 and an observed significance level of 0.010 (see Table 29). It suggests that the logistic model can explain the variance of the dependent variable based on the independent variables, not random error and the model with predictors is better than the model without predictors.

The Pearson and Deviance Goodness-of-fit results were 0.242 and 0.999 respectively (see Table 29), which suggests that the model fits the data. The pseudo R square values determined by Cox & Snell, Nagelkerke, and McFadden values are 0.078, 0.084, and 0.032 respectively (see Table 29). The pseudo R square analysis showed the strength of association was moderately low and the percentage of variance explained was slightly over 8%.

The independent variables statistically significant in this analysis (see Table 29) are friends' crime history, class standing of freshman, and School Five with p values of 0.007, 0.024 and 0.009 respectively. The result of the ordinal logistic regression reveals three independent variables with a $p < 0.05$. Therefore, the null hypothesis is rejected. We can surmise that the students' perception of the SRO as a deterrent to the crime of marijuana sale on school campuses is influenced by the friends' crime history, class standing, and school variables.

The odds ratio (see Table 29) for friends' crime history of 1.739 would be interpreted to show that students who have friends who have been in trouble with the law are 1.739 times more likely to disagree that the SRO is a deterrent to marijuana sale on their school campus. An odds ratio for class standing of freshman of 3.877 would be interpreted to show that students who are in the category class standing of freshman are 3.877 times more likely to disagree that the SRO is a deterrent to marijuana sale on their school campus. The odds ratio for School Five was 0.338. This reveals that students in the School Five category are 0.338 times respectively more likely to agree that the SRO is a deterrent to marijuana sale on school campuses.

Table 29: Ordinal Logistic Regression Model Parameter Estimates, Odds Ratio, and Model Fitting Information for Marijuana Sale

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Marijuana Sale = 1	-0.040	0.496	0.006	1	0.936	-1.011	0.932	0.961	0.364	2.539
Marijuana Sale = 2	0.993	0.498	3.979	1	0.046	0.017	1.969	2.699	1.018	7.160
Marijuana Sale = 3	2.318	0.509	20.769	1	0.000	1.321	3.315	10.157	3.748	27.526
Family Crime Hist-Yes	0.248	0.183	1.831	1	0.176	-0.111	0.607	1.281	0.895	1.834
Family Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
African-American	0.263	0.384	0.469	1	0.494	-0.489	1.014	1.300	0.613	2.757
Hispanic	0.143	0.301	0.226	1	0.635	-0.447	0.732	1.154	0.640	2.080
Caucasian	-0.130	0.298	0.189	1	0.663	-0.713	0.454	0.879	0.490	1.574
Other	0[a]	.	.	0	.	.	.	1.000		
Male	0.003	0.172	0.000	1	0.985	-0.334	0.341	1.003	0.716	1.406
Female	0[a]	.	.	0	.	.	.	1.000		
Free lunch-Yes	-0.203	0.204	0.992	1	0.319	-0.602	0.196	0.816	0.548	1.217
Free lunch-No	0[a]	.	.	0	.	.	.	1.000		
Friends' Crime Hist-Yes	0.553	0.204	7.383	1	0.007	0.154	0.952	1.739	1.167	2.592
Friends' Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
Student Past Crime-Yes	0.205	0.232	0.778	1	0.378	-0.250	0.661	1.228	0.778	1.936
Student Past Crime-No	0[a]	.	.	0	.	.	.	1.000		
SRO Exp under 5 years	-0.355	0.252	1.975	1	0.160	-0.849	0.140	0.701	0.428	1.150
SRO Exp 5-7 years	-0.050	0.257	0.038	1	0.846	-0.555	0.455	0.951	0.574	1.576
SRO Exp 8-10 years	-0.183	0.263	0.486	1	0.486	-0.699	0.332	0.832	0.497	1.394
SRO Exp Over 10 years	0[a]	.	.	0	.	.	.	1.000		
Class - Freshman	1.355	0.598	5.129	1	0.024	0.182	2.528	3.877	1.200	12.524
Class - Sophomore	0.648	0.484	1.796	1	0.180	-0.300	1.596	1.912	0.741	4.934

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Class - Junior	-0.147	0.341	0.185	1	0.667	-0.816	0.522	0.863	0.442	1.686
Class - Senior	0[a]	.	.	0	.	.	.	1.000		
Age 14 and below	-1.119	0.694	2.604	1	0.107	-2.479	0.240	0.326	0.084	1.272
Age 15	-0.457	0.560	0.665	1	0.415	-1.556	0.641	0.633	0.211	1.899
Age 16	0.131	0.430	0.093	1	0.760	-0.712	0.975	1.140	0.491	2.650
Age 17	0.321	0.317	1.028	1	0.311	-0.300	0.943	1.379	0.741	2.567
Age 18 and Above	0[a]	.	.	0	.	.	.	1.000		
School One	-0.040	0.330	0.015	1	0.903	-0.688	0.607	0.961	0.503	1.835
School Two	-0.600	0.340	3.118	1	0.077	-1.266	0.066	0.549	0.282	1.068
School Three	-0.155	0.410	0.144	1	0.704	-0.959	0.648	0.856	0.383	1.911
School Four	0.045	0.373	0.014	1	0.905	-0.687	0.776	1.046	0.503	2.173
School Five	-1.084	0.417	6.754	1	0.009	-1.901	-0.266	0.338	0.149	0.766
School Six	0[a]	.	.	0	.	.	.	1.000		

Model Fitting Dependent Variable			-2 Log Likelihood	Chi-Square	*df*	P Value	R Square
Homicide	Model	Intercept Only	1258.705				
		Final	1217.202	41.503	23	.010	
	Goodness-of-Fit	Pearson		1365.765	1330	.242	
		Deviance		1167.504	1330	.999	
	Pseudo R-Square	Cox and Snell					.078
		Nagelkerke					.084
		McFadden					.032

Link function: Logit.

a. This parameter is set to zero because it is redundant.

Hypothesis Two (Sale of Cocaine)

Hypothesis two states students' perception of the SRO as a deterrent to the FBI Part II offenses (sale of cocaine) on school campuses is influenced by the student demographics and personal attributes including age, race, class standing, income, school attended, past crimes, exposures to a SRO, friends' crime history, and family crime history. School One, Two, Three, Four, Five, and Six had 165, 141, 48, 101, 66, and 46 students respectively respond to the statement; you think the School Resource Officer at your school helps prevent the sale of cocaine from being committed at school. The results for the students who responded to the statement are displayed in Table 20.

The students' SRO prevents cocaine sales response distribution percentages for schools one through six and the school district overall are shown in Appendix L, Chart 15. The distribution across schools revealed that the schools' distribution for all drug related offenses were similar. The strongly agree category contain a high at School Five of 54.5% to the low was school at four with 38.6% and the school district overall was 46.0%. The strongly agree category contained three schools over 50%. Schools with students responding agree ranged between 13.0% to 33.3% and the district overall was 23.3%. Alternatively, students responding disagree ranged from 3.5% to 9.7% and the school district overall was 6.7%. Students who strongly disagreed ranged from 0.6% through 10.9% with the district overall being 4.1%.

The results for ordinal logistic regression testing hypothesis two (sale of cocaine) rendered a chi-square value of 43.770 and an observed significance level of 0.006 (see Table 30). It suggests that the logistic model can explain the variance of the dependent

variable based on the independent variables, not random error and the model with predictors is better than the model without predictors.

The Pearson and Deviance Goodness-of-fit results were 0.137 and 1.000 respectively (see Table 30), which suggests that the model fits the data. The pseudo R square values determined by Cox & Snell, Nagelkerke, and McFadden values are 0.082, 0.089, and 0.034 respectively (see Table 30). The pseudo R square analysis showed the strength of association was moderately low and the percentage of variance explained was slightly over 9%.

The independent variables statistically significant in this analysis are friends' crime history, class standing of freshman, and School Five (see Table 30). The p values were 0.008, 0.039, and 0.009 respectively. The result of the ordinal logistic regression reveals three independent variables with a $p < 0.05$. Therefore, the null hypothesis is rejected and can conclude that the students' perception of the SRO as a deterrent to the crime of cocaine sale on school campuses is influenced by the friends' crime history, class standing, and school variables.

Table 30: Ordinal Logistic Regression Model Parameter Estimates, Odds Ratio, and Model Fitting Information for Cocaine Sale

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Cocaine Sale = 1	-0.028	0.500	0.003	1	0.955	-1.008	0.951	0.972	0.365	2.589
Cocaine Sale = 2	0.999	0.502	3.965	1	0.046	0.016	1.983	2.716	1.016	7.262
Cocaine Sale = 3	2.437	0.515	22.367	1	0.000	1.427	3.446	11.434	4.165	31.385
Family Crime Hist-Yes	0.235	0.185	1.610	1	0.205	-0.128	0.598	1.265	0.880	1.818
Family Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
African-American	0.286	0.385	0.549	1	0.459	-0.470	1.041	1.330	0.625	2.831
Hispanic	-0.007	0.303	0.001	1	0.981	-0.601	0.587	0.993	0.548	1.798
Caucasian	-0.158	0.301	0.277	1	0.599	-0.747	0.431	0.854	0.474	1.539
Other	0[a]	.	.	0	.	.	.	1.000		
Male	-0.117	0.175	0.452	1	0.501	-0.460	0.225	0.889	0.631	1.252
Female	0[a]	.	.	0	.	.	.	1.000		
Free lunch-Yes	-0.136	0.206	0.439	1	0.508	-0.539	0.267	0.873	0.583	1.306
Free lunch-No	0[a]	.	.	0	.	.	.	1.000		
Friends' Crime Hist-Yes	0.548	0.206	7.074	1	0.008	0.144	0.951	1.729	1.155	2.589
Friends' Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
Student Past Crime-Yes	0.283	0.234	1.467	1	0.226	-0.175	0.741	1.327	0.839	2.098
Student Past Crime-No	0[a]	.	.	0	.	.	.	1.000		
SRO Exp under 5 years	-0.363	0.255	2.024	1	0.155	-0.862	0.137	0.696	0.422	1.147
SRO Exp 5-7 years	-0.009	0.260	0.001	1	0.974	-0.517	0.500	0.991	0.596	1.649
SRO Exp 8-10 years	-0.145	0.265	0.298	1	0.585	-0.665	0.375	0.865	0.514	1.455
SRO Exp Over 10 years	0[a]	.	.	0	.	.	.	1.000		
Class - Freshman	1.242	0.603	4.240	1	0.039	0.060	2.423	3.461	1.062	11.284
Class - Sophomore	0.562	0.488	1.327	1	0.249	-0.394	1.518	1.754	0.674	4.563

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Class - Junior	-0.088	0.344	0.065	1	0.799	-0.762	0.587	0.916	0.467	1.798
Class - Senior	0[a]	.	.	0	.	.	.	1.000		
Age 14 and below	-1.163	0.701	2.754	1	0.097	-2.536	0.211	0.313	0.079	1.234
Age 15	-0.472	0.566	0.697	1	0.404	-1.581	0.637	0.624	0.206	1.890
Age 16	0.081	0.434	0.035	1	0.852	-0.769	0.931	1.084	0.463	2.536
Age 17	0.300	0.319	0.885	1	0.347	-0.326	0.927	1.350	0.722	2.526
Age 18 and Above	0[a]	.	.	0	.	.	.	1.000		
School One	-0.140	0.333	0.176	1	0.675	-0.793	0.513	0.869	0.452	1.671
School Two	-0.569	0.342	2.767	1	0.096	-1.240	0.102	0.566	0.289	1.107
School Three	-0.131	0.413	0.101	1	0.750	-0.940	0.677	0.877	0.391	1.969
School Four	0.114	0.376	0.092	1	0.762	-0.622	0.850	1.121	0.537	2.339
School Five	-1.099	0.422	6.768	1	0.009	-1.927	-0.271	0.333	0.146	0.763
School Six	0[a]	.	.	0	.	.	.	1.000		

Model Fitting Dependent Variable			-2 Log Likelihood	Chi-Square	*df*	P Value	R Square
Homicide	Model	Intercept Only	1228.399				
		Final	1184.629	43.770	23	.006	
	Goodness-of-Fit	Pearson		1389.545	1333	.137	
		Deviance		1139.090	1333	1.000	
	Pseudo R-Square	Cox and Snell					.082
		Nagelkerke					.089
		McFadden					.034

Link function: Logit.

a. This parameter is set to zero because it is redundant.

The odds ratio (see Table 30) for the statistically significant variables, friends' crime history, class standing of freshman, and School Five, for cocaine sale on school campuses was performed. An odds ratio for friends' crime history and class standing of freshman of 1.729 and 3.461 respectively would be interpreted to show that students in the friends' crime history and class standing of freshman categories are 1.729 and 3.461 respectively times more likely to disagree that the SRO is a deterrent to cocaine sale on their school campus. The odds ratio for School Five was 0.333. This suggests that students in School Five are 0.333 times respectively more likely to agree that the SRO is a deterrent to cocaine sale on school campuses.

Hypothesis Two (Sale of Other Drugs)

Hypothesis two states students' perception of the SRO as a deterrent to the FBI Part II offenses (sale of other drugs) on school campuses is influenced by the student demographics and personal attributes including age, race, class standing, income, school attended, past crimes, exposures to a SRO, friends' crime history, and family crime history. School One, Two, Three, Four, Five, and Six had 165, 141, 48, 101, 66, and 46 students respectively respond to the statement; you think the School Resource Officer at your school helps prevent the sale of other drugs from being committed at school. Of those students who responded to the statement, the results are listed in Table 20.

Appendix L, Chart 16 displays the distribution for the students' responses to hypothesis two (sale of other drugs). The distribution for students' strongly agreeing for the school district was 43.7% including a low of 37.5% for School Three to a high of 54.5% for School Five. Students who answered agree varied from School Six's 10.9% to

School Three's 31.3% and the district overall was 23.3%. Alternatively, students responding disagree ranged from 4.3% to 10.9% and the school district overall was 7.2%. Students who strongly disagreed ranged from 2.4% through 10.9% with the district overall of 4.9%.

The results for ordinal logistic regression testing hypothesis two (sale of other drugs) rendered a chi-square value of 47.567 and an observed significance level of 0.002 (see Table 31). It suggests that the logistic model can explain the variance of the dependent variable based on the independent variables, not random error and the model with predictors is better than the model without predictors.

The Pearson and Deviance Goodness-of-fit results were 0.138 and 1.000 respectively (see Table 31), which suggests that the model fits the data. The pseudo R square values determined by Cox & Snell, Nagelkerke, and McFadden values are 0.089, 0.096, and 0.036 respectively (see Table 31). The pseudo R square analysis showed the strength of association was moderately low and the percentage of variance explained was slightly over 10%.

The independent variables statistically significant in this analysis are friends' crime history, class standing of freshman, and School Five (see Table 31). The p values were 0.007, 0.036, and 0.004 respectively. The result of the ordinal logistic regression reveals three independent variables with a $p < 0.05$. Therefore, the null hypothesis is rejected. We can conclude that the students' perception of the SRO as a deterrent to the crime of other drug sales on school campuses is influenced by the friends' crime history, class standing, and school variables.

The odds ratio (see Table 31) for friends' crime history of 1.733 would be interpreted to show that students who have friends who have been in trouble with the law are 1.733 times more likely to disagree that the SRO is a deterrent to other drug sales on their school campus. An odds ratio for class standing of freshman of 3.510 would be interpreted to show that students who are in the category of class standing freshman are 3.510 times more likely to disagree that the SRO is a deterrent to other drug sales on their school campus. The odds ratio for School Five was 0.300. This indicates that students in the School Five category are 0.300 times respectively more likely to agree that the SRO is a deterrent to other drug sales on school campuses.

Table 31: Ordinal Logistic Regression Model Parameter Estimates, Odds Ratio, and Model Fitting Information for Other Drug Sale

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Other Drug Sale = 1	-0.028	0.500	0.003	1	0.955	-1.008	0.951	0.972	0.365	2.589
Other Drug Sale = 2	0.999	0.502	3.965	1	0.046	0.016	1.983	2.716	1.016	7.262
Other Drug Sale = 3	2.437	0.515	22.367	1	0.000	1.427	3.446	11.434	4.165	31.385
Family Crime Hist-Yes	0.235	0.185	1.610	1	0.205	-0.128	0.598	1.265	0.880	1.818
Family Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
African-American	0.286	0.385	0.549	1	0.459	-0.470	1.041	1.330	0.625	2.831
Hispanic	-0.007	0.303	0.001	1	0.981	-0.601	0.587	0.993	0.548	1.798
Caucasian	-0.158	0.301	0.277	1	0.599	-0.747	0.431	0.854	0.474	1.539
Other	0[a]	.	.	0	.	.	.	1.000		
Male	-0.117	0.175	0.452	1	0.501	-0.460	0.225	0.889	0.631	1.252
Female	0[a]	.	.	0	.	.	.	1.000		
Free lunch-Yes	-0.136	0.206	0.439	1	0.508	-0.539	0.267	0.873	0.583	1.306
Free lunch-No	0[a]	.	.	0	.	.	.	1.000		
Friends' Crime Hist-Yes	0.548	0.206	7.074	1	0.008	0.144	0.951	1.729	1.155	2.589
Friends' Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
Student Past Crime-Yes	0.283	0.234	1.467	1	0.226	-0.175	0.741	1.327	0.839	2.098
Student Past Crime-No	0[a]	.	.	0	.	.	.	1.000		
SRO Exp under 5 years	-0.363	0.255	2.024	1	0.155	-0.862	0.137	0.696	0.422	1.147
SRO Exp 5-7 years	-0.009	0.260	0.001	1	0.974	-0.517	0.500	0.991	0.596	1.649
SRO Exp 8-10 years	-0.145	0.265	0.298	1	0.585	-0.665	0.375	0.865	0.514	1.455
SRO Exp Over 10 years	0[a]	.	.	0	.	.	.	1.000		
Class - Freshman	1.242	0.603	4.240	1	0.039	0.060	2.423	3.461	1.062	11.284
Class - Sophomore	0.562	0.488	1.327	1	0.249	-0.394	1.518	1.754	0.674	4.563

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Class - Junior	-0.088	0.344	0.065	1	0.799	-0.762	0.587	0.916	0.467	1.798
Class - Senior	0[a]	.	.	0	.	.	.	1.000		
Age 14 and below	-1.163	0.701	2.754	1	0.097	-2.536	0.211	0.313	0.079	1.234
Age 15	-0.472	0.566	0.697	1	0.404	-1.581	0.637	0.624	0.206	1.890
Age 16	0.081	0.434	0.035	1	0.852	-0.769	0.931	1.084	0.463	2.536
Age 17	0.300	0.319	0.885	1	0.347	-0.326	0.927	1.350	0.722	2.526
Age 18 and Above	0[a]	.	.	0	.	.	.	1.000		
School One	-0.140	0.333	0.176	1	0.675	-0.793	0.513	0.869	0.452	1.671
School Two	-0.569	0.342	2.767	1	0.096	-1.240	0.102	0.566	0.289	1.107
School Three	-0.131	0.413	0.101	1	0.750	-0.940	0.677	0.877	0.391	1.969
School Four	0.114	0.376	0.092	1	0.762	-0.622	0.850	1.121	0.537	2.339
School Five	-1.099	0.422	6.768	1	0.009	-1.927	-0.271	0.333	0.146	0.763
School Six	0[a]	.	.	0	.	.	.	1.000		

Model Fitting Dependent Variable			-2 Log Likelihood	Chi-Square	*df*	P Value	R Square
Homicide	Model	Intercept Only	1253.391				
		Final	1205.825	47.567	23	.002	
	Goodness-of-Fit	Pearson		1389.321	1333	.138	
		Deviance		1156.127	1333	1.000	
	Pseudo R-Square	Cox and Snell					.089
		Nagelkerke					.096
		McFadden					.036

Link function: Logit.

a. This parameter is set to zero because it is redundant.

Hypothesis Results for Other Offenses and Overall Crime

Section four examines hypotheses three and four. Table 32 displays the descriptive statistics for each of the hypotheses. The distribution for the responses of students was consistent with sections one and two in that the strongly agree and agree responses categories are larger compared to disagree and strongly disagree for the crime types and within the school district.

Table 32: Students' Responses for the SRO Prevents Other Offenses and Overall Crime

Crime	Category	School 1	School 2	School 3	School 4	School 5	School 6	School District
Tobacco Use	Strongly Agree	30.9%	35.5%	31.3%	32.7%	48.5%	39.1%	35.1%
	Agree	24.2%	24.1%	27.1%	28.7%	24.2%	23.9%	25.2%
	Neutral	20.0%	24.8%	16.7%	26.7%	16.7%	10.9%	21.0%
	Disagree	17.6%	12.1%	20.8%	5.9%	6.1%	13.0%	12.7%
	Strongly Disagree	7.3%	3.5%	4.2%	5.9%	4.5%	13.0%	6.0%
Tobacco Possession	Strongly Agree	28.5%	34.0%	29.2%	30.0%	47.0%	32.6%	32.7%
	Agree	21.8%	23.4%	29.2%	30.0%	25.8%	17.4%	24.4%
	Neutral	21.2%	24.1%	18.8%	25.0%	12.1%	19.6%	21.2%
	Disagree	20.6%	12.8%	14.6%	8.0%	7.6%	15.2%	14.0%
	Strongly Disagree	7.9%	5.7%	8.3%	7.0%	7.6%	15.2%	7.8%
Truancy	Strongly Agree	20.6%	27.7%	18.8%	26.7%	28.8%	34.8%	25.4%
	Agree	21.2%	22.7%	31.3%	21.8%	27.3%	23.9%	23.5%
	Neutral	25.5%	25.5%	25.0%	30.7%	21.2%	19.6%	25.4%
	Disagree	16.4%	16.3%	14.6%	7.9%	12.1%	10.9%	13.8%
	Strongly Disagree	16.4%	7.8%	10.4%	12.9%	10.6%	10.9%	12.0%
Overall Crime	Strongly Agree	34.5%	40.4%	37.5%	38.6%	53.0%	47.8%	39.2%
	Agree	26.7%	31.2%	33.3%	22.8%	24.2%	10.9%	28.0%

Crime	Category	School 1	School 2	School 3	School 4	School 5	School 6	School District
	Neutral	26.1%	20.6%	16.7%	26.7%	12.1%	21.7%	21.5%
	Disagree	11.5%	5.0%	10.4%	5.0%	6.1%	8.7%	8.1%
	Strongly Disagree	1.2%	2.8%	2.1%	6.9%	4.5%	10.9%	3.2%
*N		N-166	N-142	N-48	N-101	N-66	N-46	N-569

Hypothesis Three (Tobacco Use or Possession)

Hypothesis three states students' perception of the SRO as a deterrent to the other offenses (tobacco use or possession) on school campuses is influenced by the student demographics and personal attributes including age, race, class standing, income, school attended, past crimes, exposures to a SRO, friends' crime history, and family crime history. The equation was tested twice; first was tobacco use, and the second was tobacco possession. School One, Two, Three, Four, Five, and Six had 165, 141, 48, 101, 66, and 46 students respectively respond to the statement; you think the School Resource Officer at your school helps prevent the crime of tobacco use by a juvenile from being committed at school. The findings for the students who responded to the statement are shown in Table 32.

The students' response distribution for the SRO deterring the crime of tobacco use is shown in Appendix L, Chart 17. Each of the student response categories are similar to the district overall percentages of strongly agree 35.1%, agree 25.2%, neutral 21.0%, disagree 12.7%, and strongly disagree 6.0%. School Five's student response, strongly agree (13.4%), was the only category over 8% from the school district.

The results for ordinal logistic regression testing hypothesis three (tobacco use) rendered a chi-square value of 46.372 and an observed significance level of 0.003 (see

Table 33). It suggests that the logistic model can explain the variance of the dependent variable based on the independent variables, not random error and the model with predictors is better than the model without predictors.

The Pearson and Deviance Goodness-of-fit results were 0.209 and 0.982 respectively (see Table 33), which suggests that the model fits the data. The pseudo R square values determined by Cox & Snell, Nagelkerke, and McFadden values are 0.087, 0.093, and 0.033 respectively (see Table 33). The pseudo R square analysis showed the strength of association was moderately low and the percentage of variance explained was slightly over 9%.

This regression analysis did not contain any independent variables statistically significant (see Table 33). The result of the ordinal logistic regression did not produce any independent variables with a $p < 0.05$. Therefore, we fail to reject the null hypothesis for tobacco use and conclude that the students' perception of the SRO as a deterrent to tobacco use on school campuses is not influenced by any of this study's tested variables.

Table 33: Ordinal Logistic Regression Model Parameter Estimates, Odds Ratio, and Model Fitting Information for Tobacco Use

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Tobacco Use = 1	-0.187	0.489	0.147	1	0.701	-1.146	0.771	0.829	0.318	2.161
Tobacco Use = 2	0.922	0.490	3.530	1	0.060	-0.040	1.883	2.513	0.961	6.572
Tobacco Use = 3	2.097	0.498	17.719	1	0.000	1.121	3.074	8.143	3.067	21.622
Family Crime Hist-Yes	0.300	0.180	2.774	1	0.096	-0.053	0.653	1.350	0.948	1.921
Family Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
African-American	0.345	0.377	0.840	1	0.359	-0.393	1.084	1.412	0.675	2.955
Hispanic	-0.034	0.294	0.014	1	0.907	-0.611	0.542	0.966	0.543	1.719
Caucasian	0.080	0.291	0.076	1	0.783	-0.489	0.650	1.083	0.613	1.915
Other	0[a]	.	.	0	.	.	.	1.000		
Male	-0.232	0.169	1.888	1	0.169	-0.564	0.099	0.793	0.569	1.104
Female	0[a]	.	.	0	.	.	.	1.000		
Free lunch-Yes	-0.123	0.200	0.380	1	0.537	-0.514	0.268	0.884	0.598	1.308
Free lunch-No	0[a]	.	.	0	.	.	.	1.000		
Friends' Crime Hist-Yes	0.346	0.198	3.057	1	0.080	-0.042	0.734	1.413	0.959	2.083
Friends' Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
Student Past Crime-Yes	0.250	0.230	1.183	1	0.277	-0.200	0.700	1.284	0.818	2.014
Student Past Crime-No	0[a]	.	.	0	.	.	.	1.000		
SRO Exp under 5 years	-0.429	0.248	2.994	1	0.084	-0.915	0.057	0.651	0.401	1.059
SRO Exp 5-7 years	-0.017	0.253	0.004	1	0.947	-0.513	0.480	0.983	0.599	1.616
SRO Exp 8-10 years	-0.084	0.258	0.107	1	0.744	-0.590	0.422	0.919	0.554	1.525
SRO Exp Over 10 years	0[a]	.	.	0	.	.	.	1.000		
Class - Freshman	0.767	0.589	1.697	1	0.193	-0.387	1.922	2.154	0.679	6.837
Class - Sophomore	0.023	0.476	0.002	1	0.961	-0.910	0.957	1.024	0.402	2.603

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Class - Junior	-0.313	0.338	0.860	1	0.354	-0.975	0.349	0.731	0.377	1.417
Class - Senior	0[a]	.	.	0	.	.	.	1.000		
Age 14 and below	-0.605	0.683	0.784	1	0.376	-1.945	0.734	0.546	0.143	2.084
Age 15	0.209	0.551	0.143	1	0.705	-0.871	1.288	1.232	0.419	3.626
Age 16	0.201	0.425	0.223	1	0.637	-0.633	1.034	1.222	0.531	2.813
Age 17	0.445	0.312	2.030	1	0.154	-0.167	1.057	1.561	0.846	2.879
Age 18 and Above	0[a]	.	.	0	.	.	.	1.000		
School One	0.380	0.328	1.345	1	0.246	-0.262	1.022	1.462	0.769	2.779
School Two	-0.166	0.334	0.247	1	0.619	-0.820	0.488	0.847	0.440	1.630
School Three	0.303	0.405	0.557	1	0.456	-0.492	1.097	1.353	0.611	2.996
School Four	0.209	0.370	0.319	1	0.572	-0.516	0.935	1.233	0.597	2.547
School Five	-0.781	0.410	3.623	1	0.057	-1.586	0.023	0.458	0.205	1.023
School Six	0[a]	.	.	0	.	.	.	1.000		

Model Fitting Dependent Variable			-2 Log Likelihood	Chi-Square	*df*	P Value	R Square
Homicide	Model	Intercept Only	1327.735				
		Final	1281.363	46.372	23	.003	
	Goodness-of-Fit	Pearson		1374.595	1333	.209	
		Deviance		1227.271	1333	.982	
	Pseudo R-Square	Cox and Snell					.087
		Nagelkerke					.093
		McFadden					.033

Link function: Logit.

a. This parameter is set to zero because it is redundant.

The second section for hypothesis three was tobacco possession by juveniles on school campuses. School One, Two, Three, Four, Five, and Six had 165, 141, 48, 100, 66, and 46 students respectively respond to the statement; you think the School Resource Officer at your school helps prevent the crime of tobacco possession by a juvenile from being committed at school. The student response percentages are shown in Table 32. The response distribution displayed in Appendix L, Chart 18 was comparable to the tobacco use responses.

The results for ordinal logistic regression testing hypothesis three (tobacco possession) rendered a chi-square value of 42.855 and an observed significance level of 0.007 (see Table 34). It suggests that the logistic model can explain the variance of the dependent variable based on the independent variables, not random error and the model with predictors is better than the model without predictors.

The Pearson and Deviance Goodness-of-fit results were 0.332 and 0.975 respectively (see Table 34), which suggests that the model fits the data. The pseudo R square values determined by Cox & Snell, Nagelkerke, and McFadden values are 0.080, 0.086, and 0.031 respectively (see Table 34). The pseudo R square analysis showed the strength of association was moderately low and the percentage of variance explained was slightly over 8%.

Table 34: Ordinal Logistic Regression Model Parameter Estimates, Odds Ratio, and Model Fitting for Tobacco Possession

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Tobacco Possession = 1	-0.371	0.487	0.580	1	0.446	-1.324	0.583	0.690	0.266	1.792
Tobacco Possession = 2	0.696	0.487	2.041	1	0.153	-0.259	1.651	2.006	0.772	5.214
Tobacco Possession = 3	1.806	0.493	13.412	1	0.000	0.840	2.773	6.088	2.316	16.009
Family Crime Hist-Yes	0.263	0.180	2.138	1	0.144	-0.090	0.616	1.301	0.914	1.852
Family Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
African-American	0.309	0.377	0.672	1	0.412	-0.430	1.047	1.362	0.651	2.850
Hispanic	0.151	0.294	0.264	1	0.607	-0.425	0.727	1.163	0.654	2.069
Caucasian	0.370	0.291	1.617	1	0.204	-0.200	0.940	1.448	0.818	2.561
Other	0[a]	.	.	0	.	.	.	1.000		
Male	-0.124	0.168	0.542	1	0.462	-0.454	0.206	0.883	0.635	1.229
Female	0[a]	.	.	0	.	.	.	1.000		
Free lunch-Yes	0.035	0.199	0.032	1	0.859	-0.355	0.426	1.036	0.701	1.531
Free lunch-No	0[a]	.	.	0	.	.	.	1.000		
Friends' Crime Hist-Yes	0.255	0.198	1.665	1	0.197	-0.132	0.643	1.291	0.876	1.902
Friends' Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
Student Past Crime-Yes	0.297	0.229	1.675	1	0.196	-0.153	0.746	1.345	0.858	2.109
Student Past Crime-No	0[a]	.	.	0	.	.	.	1.000		
SRO Exp under 5 years	-0.385	0.246	2.442	1	0.118	-0.868	0.098	0.680	0.420	1.103
SRO Exp 5-7 years	-0.105	0.253	0.173	1	0.677	-0.601	0.391	0.900	0.548	1.478
SRO Exp 8-10 years	-0.100	0.257	0.151	1	0.698	-0.604	0.404	0.905	0.547	1.498
SRO Exp Over 10 years	0[a]	.	.	0	.	.	.	1.000		
Class - Freshman	0.768	0.590	1.695	1	0.193	-0.388	1.923	2.155	0.678	6.845
Class - Sophomore	0.003	0.475	0.000	1	0.995	-0.929	0.935	1.003	0.395	2.546

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Class - Junior	-0.212	0.341	0.389	1	0.533	-0.880	0.455	0.809	0.415	1.576
Class - Senior	0[a]	.	.	0	.	.	.	1.000		
Age 14 and below	-0.769	0.684	1.266	1	0.260	-2.109	0.571	0.463	0.121	1.769
Age 15	0.150	0.549	0.074	1	0.785	-0.926	1.225	1.161	0.396	3.403
Age 16	0.217	0.425	0.261	1	0.610	-0.616	1.050	1.242	0.540	2.857
Age 17	0.419	0.310	1.817	1	0.178	-0.190	1.027	1.520	0.827	2.793
Age 18 and Above	0[a]	.	.	0	.	.	.	1.000		
School One	0.174	0.325	0.286	1	0.593	-0.463	0.810	1.190	0.630	2.248
School Two	-0.487	0.332	2.159	1	0.142	-1.138	0.163	0.614	0.321	1.177
School Three	-0.115	0.403	0.082	1	0.775	-0.905	0.675	0.891	0.404	1.963
School Four	-0.153	0.368	0.174	1	0.677	-0.874	0.568	0.858	0.417	1.764
School Five	-1.103	0.407	7.349	1	0.007	-1.901	-0.306	0.332	0.149	0.737
School Six	0[a]	.	.	0	.	.	.	1.000		

Model Fitting Dependent Variable			-2 Log Likelihood	Chi-Square	*df*	P Value	R Square
Homicide	Model	Intercept Only	1333.446				
		Final	1290.591	42.855	23	.007	
	Goodness-of-Fit	Pearson		1351.856	1330	.332	
		Deviance		1230.953	1330	.975	
	Pseudo R-Square	Cox and Snell					.080
		Nagelkerke					.086
		McFadden					.031

Link function: Logit.

a. This parameter is set to zero because it is redundant.

The independent variable that was statistically significant in this analysis was School Five with a p value of 0.007 (see Table 34). The result of the ordinal logistic regression reveals one independent variable with a $p < 0.05$. Therefore, the null hypothesis is rejected for tobacco possession. We can conclude that the students' perception of the SRO as a deterrent to tobacco possession on school campuses is influenced by the school variable.

The odds ratio was calculated for the statistically significant variable, School Five (see Table 34). The odds ratio for School Five was 0.332. This suggests that students in the School Five category are 0.332 times respectively more likely to agree that the SRO is a deterrent to tobacco possession on school campuses.

Hypothesis Three (Truancy)

Hypothesis three states students' perception of the SRO as a deterrent to the other offenses (truancy) on school campuses is influenced by the student demographics and personal attributes including age, race, class standing, income, school attended, past crimes, exposures to a SRO, friends' crime history, and family crime history. School One, Two, Three, Four, Five, and Six had 165, 141, 48, 101, 66, and 46 students respectively respond to the statement; you think the School Resource Officer at your school helps prevent truancy or skipping class from being committed at school. The results for the students who responded to the statement are displayed in Table 32.

The students' responses are displayed in Appendix L, Chart 19. The distribution was more evenly divided within all categories. The strongly agree and agree categories

still contain a larger percentage of student responses compared to the disagree and strongly disagree categories.

The results for ordinal logistic regression testing hypothesis three (truancy) rendered a chi-square value of 43.892 and an observed significance level of 0.005 (see Table 35). It suggests that the logistic model can explain the variance of the dependent variable based on the independent variables, not random error and the model with predictors is better than the model without predictors.

The Pearson and Deviance Goodness-of-fit results were 0.217 and 0.934 respectively (see Table 35), which suggests that the model fits the data. The pseudo R square values determined by Cox & Snell, Nagelkerke, and McFadden values are 0.082, 0.088, and 0.031 respectively (see Table 35). The pseudo R square analysis showed the strength of association was moderately low and the percentage of variance explained was slightly over 9%.

The independent variables statistically significant in this analysis are friends' crime history and School One (see Table 35). The p values were 0.012 and 0.004 respectively. The result of the ordinal logistic regression reveals two independent variables with a $p < 0.05$. Therefore, the null hypothesis is rejected and can surmise that the students' perception of the SRO as a deterrent to truancy on school campuses is influenced by the friends' crime history and school variables.

Table 35: Ordinal Logistic Regression Model Parameter Estimates, Odds Ratio, and SPSS Model Fitting Information for Truancy

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Truancy = 1	-0.013	0.485	0.001	1	0.978	-0.963	0.937	0.987	0.382	2.552
Truancy = 2	1.020	0.486	4.394	1	0.036	0.066	1.973	2.773	1.069	7.194
Truancy = 3	2.242	0.494	20.569	1	0.000	1.273	3.212	9.417	3.573	24.818
Family Crime Hist-Yes	0.122	0.178	0.469	1	0.493	-0.227	0.472	1.130	0.797	1.603
Family Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
African-American	0.560	0.375	2.228	1	0.136	-0.175	1.296	1.751	0.839	3.653
Hispanic	0.238	0.291	0.671	1	0.413	-0.332	0.808	1.269	0.718	2.244
Caucasian	0.265	0.289	0.844	1	0.358	-0.301	0.831	1.304	0.740	2.295
Other	0[a]	.	.	0	.	.	.	1.000		
Male	-0.158	0.168	0.885	1	0.347	-0.486	0.171	0.854	0.615	1.186
Female	0[a]	.	.	0	.	.	.	1.000		
Free lunch-Yes	0.058	0.198	0.086	1	0.769	-0.330	0.446	1.060	0.719	1.563
Free lunch-No	0[a]	.	.	0	.	.	.	1.000		
Friends' Crime Hist-Yes	0.494	0.196	6.341	1	0.012	0.109	0.878	1.639	1.116	2.407
Friends' Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
Student Past Crime-Yes	0.353	0.230	2.360	1	0.124	-0.097	0.802	1.423	0.907	2.231
Student Past Crime-No	0[a]	.	.	0	.	.	.	1.000		
SRO Exp under 5 years	-0.229	0.245	0.875	1	0.349	-0.709	0.251	0.795	0.492	1.285
SRO Exp 5-7 years	0.304	0.252	1.452	1	0.228	-0.190	0.797	1.355	0.827	2.219
SRO Exp 8-10 years	0.051	0.257	0.040	1	0.842	-0.452	0.554	1.052	0.636	1.741
SRO Exp Over 10 years	0[a]	.	.	0	.	.	.	1.000		
Class - Freshman	0.770	0.589	1.709	1	0.191	-0.384	1.925	2.160	0.681	6.853
Class - Sophomore	0.396	0.473	0.699	1	0.403	-0.532	1.323	1.485	0.587	3.756

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Class - Junior	-0.241	0.334	0.518	1	0.472	-0.896	0.415	0.786	0.408	1.514
Class - Senior	0[a]	.	.	0	.	.	.	1.000		
Age 14 and below	-1.132	0.678	2.791	1	0.095	-2.461	0.196	0.322	0.085	1.217
Age 15	-0.502	0.544	0.850	1	0.357	-1.569	0.565	0.605	0.208	1.760
Age 16	-0.113	0.418	0.073	1	0.787	-0.933	0.707	0.893	0.393	2.028
Age 17	0.094	0.307	0.094	1	0.759	-0.507	0.696	1.099	0.602	2.005
Age 18 and Above	0[a]	.	.	0	.	.	.	1.000		
School One	0.954	0.329	8.404	1	0.004	0.309	1.599	2.596	1.362	4.947
School Two	0.290	0.333	0.760	1	0.383	-0.362	0.942	1.337	0.696	2.566
School Three	0.409	0.405	1.021	1	0.312	-0.384	1.202	1.505	0.681	3.328
School Four	0.524	0.369	2.016	1	0.156	-0.199	1.248	1.690	0.819	3.485
School Five	-0.078	0.400	0.038	1	0.846	-0.862	0.707	0.925	0.422	2.027
School Six	0[a]	.	.	0	.	.	.	1.000		

Model Fitting Dependent Variable			-2 Log Likelihood	Chi-Square	*df*	P Value	R Square
Homicide	Model	Intercept Only	1355.112				
		Final	1311.220	43.892	23	.005	
	Goodness-of-Fit	Pearson		1373.091	1333	.217	
		Deviance		1255.977	1333	.934	
	Pseudo R-Square	Cox and Snell					.082
		Nagelkerke					.088
		McFadden					.031

Link function: Logit.

a. This parameter is set to zero because it is redundant.

The odds ratio for each statistically significant variable was conducted (see Table 35). An odds ratio for friends' crime history of 1.639 would be interpreted to show that students who have friends who have been in trouble with the law are 1.639 times more likely to disagree that the SRO is a deterrent to truancy for their school campus. The odds ratio for School One was 2.596. This shows that students in the School One category are 2.596 times respectively more likely to disagree that the SRO is a deterrent to truancy for their school campus.

Hypothesis Four

Hypothesis four states students' perception of the SRO as a deterrent to the overall crime on school campuses is influenced by the student demographics and personal attributes including age, race, class standing, income, school attended, past crimes, exposures to a SRO, friends' crime history, and family crime history. School One, Two, Three, Four, Five, and Six had 166, 142, 48, 101, 66, and 46 students respectively complete the Survey of Students' Perception of the School Resource Officer. The aggregate responses were examined for the students' overall perception of the SRO's deterrent effect by taking the median result for each student's responses for each individual school and the district (see Table 32).

Appendix L, Chart 20 displays the distribution for the students' responses to hypothesis four. The distribution for students' strongly agreeing for the school district was 39.2% including a low of 34.5% for School One to a high of 53.0% for School Five. Students who answered agree varied from School Six's 10.9% to School Three's 33.3% and the district overall was 28.0%. Students who answered neutral ranged between

12.1% and 26.7% with the district overall of 21.5%. Students responding disagree ranged from 5.0% to 11.5% and the school district overall was 8.1%. Students who strongly disagreed ranged from 1.2% through 10.9% with the district overall of 3.2%.

The results for ordinal logistic regression testing hypothesis four rendered a chi-square value of 55.568 and an observed significance level of less than 0.0005 (see Table 36). It suggests that the logistic model can explain the variance of the dependent variable based on the independent variables, not random error and the model with predictors is better than the model without predictors.

The Pearson and Deviance Goodness-of-fit results were 0.062 and 0.999 respectively (see Table 36), which suggests that the model fits the data. The pseudo R square values determined by Cox & Snell, Nagelkerke, and McFadden values are 0.103, 0.111, and 0.042 respectively (see Table 36). The pseudo R square analysis showed the strength of association was moderately low and the percentage of variance explained was slightly over 11%.

The independent variables statistically significant in this analysis are friends' crime history, class standing of freshman, age category 14 and below, and School Five (see Table 36). The p values were 0.008, 0.024, 0.039, and 0.011 respectively. The result of the ordinal logistic regression reveals four independent variables with a $p < 0.05$. Therefore, the null hypothesis is rejected. We can conclude that the students' perception of the SRO as a deterrent to overall crime on school campuses is influenced by the friends' crime history, class standing, age, and school variables.

Table 36: Ordinal Logistic Regression Model Parameter Estimates, Odds Ratio, and Model Fitting Information for Overall Crime

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Overall Crime = 1	0.115	0.496	0.054	1	0.817	-0.857	1.086	1.122	0.425	2.964
Overall Crime = 2	1.374	0.500	7.559	1	0.006	0.394	2.353	3.950	1.483	10.515
Overall Crime = 3	2.860	0.515	30.874	1	0.000	1.851	3.868	17.453	6.365	47.855
Family Crime Hist-Yes	0.313	0.183	2.938	1	0.087	-0.045	0.671	1.368	0.956	1.956
Family Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
African-American	0.461	0.382	1.458	1	0.227	-0.287	1.209	1.585	0.750	3.349
Hispanic	0.106	0.299	0.125	1	0.724	-0.481	0.692	1.111	0.618	1.997
Caucasian	0.027	0.297	0.008	1	0.927	-0.554	0.608	1.027	0.574	1.837
Other	0[a]	.	.	0	.	.	.	1.000		
Male	-0.239	0.172	1.925	1	0.165	-0.576	0.099	0.788	0.562	1.104
Female	0[a]	.	.	0	.	.	.	1.000		
Free lunch-Yes	-0.015	0.202	0.005	1	0.943	-0.411	0.382	0.986	0.663	1.465
Free lunch-No	0[a]	.	.	0	.	.	.	1.000		
Friends' Crime Hist-Yes	0.533	0.202	6.973	1	0.008	0.137	0.928	1.704	1.147	2.531
Friends' Crime Hist-No	0[a]	.	.	0	.	.	.	1.000		
Student Past Crime-Yes	0.248	0.232	1.140	1	0.286	-0.207	0.703	1.281	0.813	2.019
Student Past Crime-No	0[a]	.	.	0	.	.	.	1.000		
SRO Exp under 5 years	-0.153	0.251	0.371	1	0.542	-0.646	0.340	0.858	0.524	1.404
SRO Exp 5-7 years	0.307	0.257	1.423	1	0.233	-0.197	0.811	1.359	0.821	2.250
SRO Exp 8-10 years	-0.120	0.264	0.207	1	0.649	-0.637	0.397	0.887	0.529	1.487
SRO Exp Over 10 years	0[a]	.	.	0	.	.	.	1.000		
Class - Freshman	1.348	0.598	5.092	1	0.024	0.177	2.520	3.852	1.194	12.425
Class - Sophomore	0.284	0.482	0.347	1	0.556	-0.660	1.228	1.328	0.517	3.413

Variable	Estimate	Std. Error	Wald Value	*df*	p Value	Lower 95% CI	Upper 95% CI	OR	Lower 95% CI	Upper 95% CI
Class - Junior	0.065	0.340	0.036	1	0.849	-0.602	0.731	1.067	0.548	2.078
Class - Senior	0[a]	.	.	0	.	.	.	1.000		
Age 14 and below	-1.432	0.693	4.267	1	0.039	-2.790	-0.073	0.239	0.061	0.929
Age 15	-0.491	0.556	0.782	1	0.377	-1.581	0.598	0.612	0.206	1.819
Age 16	-0.226	0.428	0.278	1	0.598	-1.065	0.614	0.798	0.345	1.847
Age 17	0.167	0.314	0.284	1	0.594	-0.448	0.783	1.182	0.639	2.188
Age 18 and Above	0[a]	.	.	0	.	.	.	1.000		
School One	0.373	0.333	1.250	1	0.264	-0.281	1.026	1.452	0.755	2.790
School Two	-0.190	0.341	0.311	1	0.577	-0.858	0.478	0.827	0.424	1.613
School Three	0.078	0.412	0.036	1	0.850	-0.731	0.886	1.081	0.482	2.426
School Four	0.371	0.375	0.979	1	0.322	-0.364	1.107	1.450	0.695	3.025
School Five	-1.071	0.421	6.470	1	0.011	-1.896	-0.246	0.343	0.150	0.782
School Six	0[a]	.	.	0	.	.	.	1.000		

Model Fitting Dependent Variable			-2 Log Likelihood	Chi-Square	*df*	P Value	R Square
Homicide	Model	Intercept Only	1273.114				
		Final	1217.545	55.568	23	.000	
	Goodness-of-Fit	Pearson		1413.409	1333	.062	
		Deviance		1170.384	1333	.999	
	Pseudo R-Square	Cox and Snell					.103
		Nagelkerke					.111
		McFadden					.042

Link function: Logit.

a. This parameter is set to zero because it is redundant.

The odds ratio for each statistically significant variable was conducted (see Table 36). An odds ratio for friends' crime history and class standing of freshman of 1.704 and 3.852 would be interpreted to show that students who either have friends who have been in trouble with the law or class standing of freshman are 1.704 and 3.852 times respectively more likely to disagree that the SRO is a deterrent to overall crime on their school campus. The odds ratios for age category 14 and below and School Five are 0.239 and 0.343 respectively. This indicates that students in the age category 14 and below or School Five categories are 0.239 and 0.343 times respectively more likely to agree that the SRO is a deterrent to overall crime on school campuses.

Summary of Findings

The sample consisted of 569 student surveys. Of those surveys, 512 were complete with no missing data and were inputted into SPSS. The remaining 57 surveys had data missing, but the available data was used.

The descriptive statistics revealed that the majority of the students surveyed perceive the SRO as a deterrent to all of the types of crimes included in this study. The percentage of students varied with each type of crime, but overall the presence of the SRO was a deterrent to crime as perceived by the students. The largest percentage of students responding that they agree (agree or strongly agree) that they believe the SRO prevents crime was for the dependent variable of rape (74.1%). Bullying without force had the lowest percentage of students indicating agree or strongly agree that the SRO was a deterrent for this respective offense type (48.3%). Overwhelmingly, students responded that the SRO is a deterrent to crime on campus.

This study tested several hypotheses using ordinal logistic regression that focused on the students' perception of the SRO as a deterrent to several different crimes. The results varied between the different types of incidents. Tobacco use on school campuses was the only analysis that did not produce statistically significant results. The ordinal logistic regression analysis resulted in each of the other tested dependent variables yielding statistically significant results.

This research tested several theoretically relevant independent variables that may influence the student's perception of the SRO as a deterrent to crime on school campuses. The statistically significant independent variables influenced varied by the type of crime observed. The independent variables statistically significant for overall crime on school campuses were friends' crime history, class standing of freshman, age 14 and below, and School Five. The independent variable statistically significant for the most (85%) dependent variables was the friends' crime history category. The only other independent variables that were statistically significant for the majority of dependent variables were class standing of freshman (55%) and School Five (70%). One dependent variable, tobacco use, did not have any statistically significant independent variables. There were two dependent variables that had four significant independent variables, 11 with three significant independent variables, four with two significant variables, two with one significant variable, and one with zero.

An odds ratio was conducted for each of the statistically significant variables. As stated above, three of the variables, friends' crime history, class standing of freshman, and School Five were found to be statistically significant for the largest number of the studied crimes. Students who have friends that have been in trouble with the law are

between 1.5 and 2.3 times, depending on the crime, more likely to disagree or strongly disagree that the SRO is a deterrent to crime on school campus. The freshman category of class standing had similar results but students in that category were between 3.4 and 5.3 times more likely to disagree or strongly disagree. Students in the School Five category were between 0.2 and 0.4 times more likely to agree or strongly agree the SRO is a deterrent to crime on school campus.

CHAPTER FIVE: DISCUSSION AND CONCLUSIONS

This chapter is divided into the following sections: Discussion and Theoretical Implications, Recommendations for Future Research, and Limitations. In this chapter, the results of the hypotheses tests will be tied to the theoretical literature. Specifically, the research will be discussed against the theoretical implications. Next a series of recommendations will be offered in relation to the future directions of research regarding the SROs roles in schools. Finally, the last section will detail the limitations of this research endeavor.

Discussion and Theoretical Implications of Findings

It is estimated that over three million violent and non-violent crimes occur annually on school campuses. One option that many school systems are undertaking to deter school violence is the utilization of SROs (Johnson, 1999). The present economy dictates the need for evaluation of SROs to ensure that the program is of value.

This study examined the perception of students as to the deterrent effect of one SRO program on school campuses. The survey instrument captured students' perception of the SRO as a crime deterrent. In addition, this study identified theoretically relevant factors that may influence those student perceptions.

By examining the students' survey responses, a clearer understanding of the SROs' effectiveness on school campuses has emerged. This research was designed to

determine if the students perceived the SRO as a deterrent to crime and more specifically, which type of crimes may be deterred by the SRO. This type of research will produce a better understanding of the SROs' role on school campuses and their effectiveness as a crime deterrent.

The theoretical framework for this study was based on deterrence theory. The results of the analysis also speak to differential association and social learning theories of crime and deviance. According to Maxson, Hennigan, and Sloane (2005), deterrence theory states crime will be deterred when sanctions are sure, swift and severe. The presence of the SRO on school campuses increases the rate and probability of those sanctions occurring. Johnson (1999) reported that students who observe other students arrested acts as a deterrent to others from committing crimes on school campuses.

The dilemma faced by school districts and law enforcement agencies is the best use of limited resources to help keep students safe on school campuses. One of the solutions that many jurisdictions use is the placement of the SRO on school campuses. The examination of the SRO's ability to deter crime on school campuses was the focus of this study. The results indicate that students do in fact, perceive that the SRO does help prevent crime on school campuses. As expected, this study found that the majority of students perceive the SRO is a deterrent to crime on school campuses. The results indicated that students perceive the SRO as a deterrent to each of the types of crime surveyed.

The present study extended Jackson's (2002) research that examined the SRO as crime deterrent. Jackson reported that his research studied the effects of the SRO with limited exposure to the SRO. Jackson's research was conducted during one school year.

Therefore, the students' exposure to the SRO was less than one calendar year. This research analyzed a school system that placed a SRO in every traditional public school. The aggregate length of students' exposure to the SRO was 6.0, 7.45, 7.22, 6.10, 5.20, and 8.28 years respectively for schools one, two, three, four, five, and six. The overall students' SRO exposure for the school district's students sampled was 6.55 years. The students' SRO exposure was much greater than Jackson's research of one year and above the target of five years. Of the students surveyed, 97.2% had a greater exposure to the SRO than the students surveyed in Jackson's study. Even though the school district placed a SRO in each traditional school in the district from kindergarten through 12th grade, the students' SRO exposure was less than expected. This may be attributed to several factors. The school district has a very transient student population. The school district calculates a mobility rate for students as a percentage of total students. The mobility rates for schools one, two, three, four, five, and six were 29.44%, 31.2%, 35.52%, 32.43%, 41.23%, and 25.86% respectively. The school district mobility rate was 34.63%, which indicates that more than one third of the students for the district were different from the first day of classes. Students who leave the district may move to a school district that does not place SROs in schools or place SROs in a limited number of schools. The state experienced many years of population growth. Due to this increase in population, schools may have students enrolled from other districts or states that may not have SROs. Schools have many programs such as International Baccalaureate and Dual Enrollment that may limit the students' exposure to a SRO. Students may also not remember seeing SROs on school campus in earlier elementary years. Overall, there are

many of the above factors may have contributed to the fact that the length of the students' exposure to the SRO was lower than expected.

The survey participants responded that the SRO was perceived as a deterrent to crime on school campus for the crimes listed in hypotheses one (homicide, rape, robbery, aggravated assault, and theft), two (battery, weapon possession, bullying with and without force, sexual assault, marijuana use and sale, cocaine use and sale, and other drug use and sale), three (tobacco use and possession and truancy), and four (overall crime). It would be expected that the more serious crimes or felonies would be deterred by the SRO at a higher rate than the less serious crimes because the deterrence theory literature suggests that when certainty and severity of punishment is high crime is more likely to be deterred (Maxson, Hennigan, & Sloane, 2005; Pogarsky, 2002; Piquero & Rengert, 1999). In addition to any legal sanctions, students who commit these types of crimes face certain expulsion from school. The results indicated that the more serious crimes of rape (74.1%), homicide (73.7%), aggravated assault or threat with a weapon (70.5%), sexual assault (67.0%), robbery (64.9%), and weapon possession (68.4%) had the highest percentage of respondents perceiving the SRO as a deterrent to those crimes (strongly agree or agree).

Deterrence theory is focused on two separate but generally acknowledged classifications of general and specific deterrence (Britt & Gottfredson, 2003; Freeman & Watson, 2006; Paternoster & Piquero, 1995; Piquero & Paternoster, 1998; Stafford & Warr, 1993). As stated earlier, general deterrence theory believes that punishing an offender in some manner will deter others from committing the same crime. Specific deterrence is the experience of legal sanctions being imposed on an offender and those

sanctions deter that offender from committing future crimes. This research applied deterrence theory to the students' perception of the SRO as a deterrent to crimes on school campuses.

Non-violent crimes, such as drug use and sales, are easier to conceal from detection (Jackson, 2002). Based on deterrence theory, the projected results prior to the implementation of the survey were that the percentage of students who strongly agreed or agreed would be much lower than the perceived deterrent effect SROs would have on more serious crimes or those which are not easily concealed. The surveyed students' results revealed that the SRO was a deterrent to the crimes of marijuana use (68.2%), cocaine use (71.7%), other drug use (67.8%), marijuana sales (66.6%), cocaine sales (69.3%), and other drug sales (67.0%) responding strongly agree or agree. The students' perceptions that the SRO is a deterrent to drug-related crimes were much higher than expected. These results were inconsistent with what might have been expected given the extant literature (National Institute on Drug Abuse, 2011, Chyen, D., et al., 2005). There are several factors that may be attributed to this in addition to the SRO. Students have been arrested at each of the schools in the past for these types of crimes. The school district maintains a zero tolerance policy for drugs on campus. Therefore, in addition to legal sanctions, students found with drugs may also be exposed to certain and severe sanctions such as expulsion or transfer to an alternative school.

Students who may commit misdemeanor crimes face less severe forms of punishment than the crimes above. Again drawing from the deterrence literature, it was predicted before survey implementation that these types of crimes and truancy would be deterred at a much lower rate (Maxson, Hennigan, & Sloane, 2005; Pogarsky, 2002;

Piquero & Rengert, 1999). The crime of theft (52.0%), battery (64.4%) tobacco use (60.3%) or possession (57.1%), bullying with (58.6%) or without force (48.3%), and truancy (48.9%) incidents had the majority of participants respond strongly agree and agree, but the percentages are lower. Bullying without force had the highest percentage of students respond strongly disagree and disagree at 28.6%. These results correlate with the studies of crime incidents on school campuses (National Youth Violence Prevention Resource Center, 2007; Olweus, 2001; Olweus, 1993). As stated in the literature review, theft was the most common crime on school campuses. Theft often goes unreported to the SRO and if the individual who committed the crime is caught, the school implements punishment many times without law enforcement involvement. Consequently, the enforcement of school sanctions absent the enforcement of legal sanctions may contribute to the reduced perception of the SRO as a deterrent to theft as compared to other crimes.

As stated above, bullying was one of the crimes where the deterrent effect was less than other crimes. Bullying may be classified as a crime when threats (assault) or striking (battery) to an individual is involved. Millions of students are victims of bullying each year. Traditionally schools have dealt with bullying through counseling both parties involved or school punishment for the primary aggressor (Yoon, 2004). In some cases the SRO may not be made aware of the bullying until the behavior escalates into more serious incidents and is reported to the SRO. Therefore, the effectiveness of the SRO as a deterrent to bullying with and without force would be expected to be lower.

It is clear from this research that students perceive SROs to be a deterrent to a wide range of crimes commonly committed on school campuses. As expected, there was variation in strength of their perceptions by crime type. Consistent with the literature,

students' strongly perceived the SROs to act as a deterrent to serious crimes. Unexpectedly, this suggests that students see SROs as a deterrent to less serious crimes and even behaviors such as drug use and bullying. This is important because SROs do appear to be at least, in the population of schools studied, creating perceptions that schools are safe. That being said it is of importance to explore the types of SROs on school campuses.

The studied school district partnered with local law enforcement to place SROs in the designated schools. The SRO technique used at each of the surveyed schools was the triad approach. As stated earlier, the triad approach directs the SRO to serve as a law enforcement officer, teacher, and counselor (McDaniel, 1999). The unique combination of roles for the SROs helps develop relationships between the students and the SROs. Individual schools and the school district's students perceived that the SRO was a deterrent to crime on school campuses. The ordinal logistic regression results showed that School Five had a student perceived deterrent effect for 14 of the 20 studied dependent variables. School Five used the triad approach and both SROs at the school were involved in the teaching of students. The SROs combined were assigned a minimum of two classes each day to instruct and would be involved in guest lecturing in other teachers classes. One of the other schools did not assign the SROs permanent classes to instruct which may have limited the opportunities for SROs to have exposure to students. In turn the decline in exposure to the SRO and the possible reduction of positive relationships between the SRO and students may have limited the students' perceived SRO deterrent effect. Based on the fact that SROs for all schools and specifically School

Five perceived the SRO as a deterrent to crime; it can be concluded that the triad approach is an effective approach for the SROs to employ.

Ordinal logistic regression was used to test the hypotheses of interest. The regression analysis examined the 10 independent variables (students' age, race, gender, class standing, income level, school attended, past crimes, exposure to a SRO, friends' crime history, and family crime history) and the relationship to the 20 dependent variables (student's perception of the SRO as a deterrent to crime on school campuses). The results varied across crime types.

The first hypothesis tested was students' perception of the SRO as a deterrent to the FBI Part I offenses on school campuses. The analysis produced statistically significant results for each of the studied crimes. The testing for hypothesis two included the same independent variables and the FBI Part II offenses included in this study. Once again each of the regression analyses produced statistically significant results. The testing for hypothesis three produced similar results except for tobacco use on school campuses. This was the only dependent variable that did not produce any statistically significant results. The testing for the final hypothesis analyzed the independent variables and overall crime. Overall crime was one of the few tested hypotheses that produced four statistically significant variables. In each of the tested hypotheses except for tobacco use, the null can be rejected.

The ordinal logistic regression produced a total of eight statistically significant variables; family crime history, friends' crime history, SRO exposure under 5 years, SRO exposure 5-7 years, class standing of freshman, age category of 14 and below, School Five, and School One. The students' race, gender, income level, and past crimes were

not statistically significant for any of the dependent variables. It can be concluded for this sample of six schools in one southeastern school district in the U.S. that the students' race, gender, income level, and criminal history have no impact on students' perceptions of the deterrence capabilities of SROs.

Family crime history was only statistically significant for the theft dependent variable. As articulated in the research literature, the results of this analysis were in the expected direction for the crime of theft. Students who have family members who have been in trouble with the law are more likely to disagree that the SRO is a deterrent to crime on school campuses. SRO exposure under 5 years was only statistically significant for the marijuana use dependent variable. SRO exposure 5-7 years was statistically significant for the robbery and bullying without force dependent variables. School One was statistically significant for the bullying with force and truancy dependent variables. The age category of 14 and below was statistically significant for the battery, bullying without force, and overall crime dependent variables. Friends' crime history (17 of 20 dependent variables), class standing of freshman (11 of 20 dependent variables), and School Five (14 of 20 dependent variables) were statistically significant for the different crimes on school campuses.

The friends' crime history independent variable was statistically significant for the majority of the studied crimes (17 out of 19 offenses). The students who responded yes (had friends that have been in trouble with the law) accounted for 63.3% of the sample and those responding no accounted for 33.7% with 3.0% missing. It would appear that general deterrence may have a limited effect on the students' perception of the SRO as a deterrent to crimes. However, it is important to remember that the

percentage of variance explained by the model on average was only 10%. Since the percentage of variance is low, the conclusions drawn are restricted since a large percentage of the model variance remains unexplained. Other factors such as the school administration policy (discussed in the limitations section in more detail) may be the cause of the low percentage of explained variance.

The friends' crime history independent variable was statistically significant for each dependent variable except bullying with force, bullying without force, and truancy. One would expect that the student's friends or peers would be an influence to the student's perceptions as the results indicated. Students who have friends who have been in trouble with the law are between 1.496 for battery and 2.281 for sexual assault times more likely to disagree that the SRO is perceived as a deterrent to crime on school campuses. The independent variable friends' crime history or students who have friends who have been in trouble with the law was statistically significant for the majority of crimes studied. In contrast, the independent variable family crime history or students who have family members who have been in trouble with the law was statistically significant only for theft. It appears that friends or peers are more influential toward the students' perception of the SRO as a deterrent to crime compared to family members. Based on the literature and this research, the SRO should concentrate on peer relationships and how to foster positive relationships between students and perhaps with police athletic leagues or other pro-social groups.

The student's past crime (independent variable) was not significant for any of the studied crimes. Again, it would appear that a similar line of reasoning from the paragraph above would conclude that specific deterrence does not affect the students' perception of

the SRO as a deterrent to crime on campuses. The percentage of students who responded yes indicating that they have been in trouble with the law was low at 17.4% of the total respondents. Therefore, the conclusion drawn for specific deterrence should be limited to similar populations because of the low percentage of students responding.

This research has theoretical relevance to social learning theory. Social learning theory suggests that individuals learn behaviors, including deviant behaviors, through interactions with others (Akers, 1985). Juveniles are especially susceptible to peer influence. According to Thornberry, Lizotte, Krohn, Farnworth, & Jang, (1994), juveniles' delinquent beliefs and behavior may be influenced through associations with delinquent peers. The effects of peer pressure appear to increase between age 10 and 14 and begin to decline between age 14 and 18 (Steinberg & Monahan, 2007). The strong effects of peer pressure may have influenced students who have friends with a crime history. Those students are more likely to disagree that the SRO is a deterrent to crime.

The category of freshman for class standing was a statistically significant variable for the crimes of robbery, battery, weapon possession, bullying without force, sexual assault, marijuana use and sale, other drug use and sale, cocaine sale, and overall crime. Freshman students who responded to the survey were between 5.8 times (battery) and 3.4 times (marijuana use and bullying without force) more likely to disagree or strongly disagree that in their perception the SRO was a deterrent to the crimes listed above. The freshman class standing and the friends' crime history were both statistically significant for 10 of the same crimes. The freshman class standing may be statistically significant because of peer pressure similar to friends' crime history above. Students who are in the freshman class are typically 15 and under. Freshman students are more susceptible to

peer pressure than their older classmates. In addition, the students in the freshman class are typically in their first year at the school and may be more vulnerable to become the victim of a crime. As the freshman students grow older their resistance to peer pressure increases (Steinberg & Monahan, 2007).

The students' perception of the deterrent effect of the SRO for the incidents of bullying with and without force had an interesting result. The statistically significant variables for bullying with force were friends' crime history and School One. The students in those categories were 1.5 times and 2.1 times, respectively, more likely to disagree that the SRO was a deterrent to bullying with force. Again, students in the friends' crime history category may disagree because of peer pressure. Students with delinquent friends may be involved in bullying with force or a witness to the bullying. The statistically significant variables for bullying without force were School 5, SRO exposure 5-7 years, class standing of freshman, and age 14 and below. The results for School 5 and class standing were consistent with the other crimes. Students in the age 14 and below category were 0.3 times more likely to agree the SRO is a deterrent. The age 14 and below category represented approximately 30% of the freshman students who responded to the survey. Therefore, the students in the age 14 and below category could agree that the SRO is a deterrent and the remaining students in the freshman category (who would be 15 or possibly older) could disagree that the SRO is a deterrent. The younger students may be at a higher risk of bullying and rely on the SRO as a deterrent compared to the older students. Based on this research, it is important for the SRO to be able to recognize and effectively deal with bullying. Bullying training for the SROs may be an important tool in this endeavor. In addition, the triad approach mandates the SRO

to be a teacher, law enforcement officer, and counselor (McDaniel, 1999). As a teacher and counselor, the SRO should work with students who may be victims of bullying especially younger students. Finally, the SRO should enforce the laws if a criminal act occurred as a result of bullying.

The tested hypotheses examined several demographic variables. The theoretical basis for each of the demographic variables was perception of police. In the perception of police literature, the variables of age, race, gender, and income level are theoretically relevant variables and continue to produce statistically significant results when examined. While these variables are significant in perception of police literature, they are not demonstrating similar results toward the SROs in this study. Therefore, perception of police literature may not serve as a guide for directing expected relationships to the perception of the SRO for demographic variables. The variation from the literature may be attributed to the length of SRO exposure to the students. An individual's perception of the police is based on all police experiences which may include different officers. The experiences are usually for a limited time period. Alternatively, as in the case of the SRO the average length of student exposure to the SRO was 6.55 years. Although the SRO exposure variable was not statistically significant, it is logical to assume that long term exposure to the SRO will influence how the student perceives the SRO. A consideration should be given to limit the rotation of the SROs to increase the length of students' exposure to the SRO and foster positive relationships. The rotation of SROs may lead to a reduction of the deterrent effect.

The independent variables students' past crimes, friends' crime history, and family crime history were also theoretically linked in the perception of police literature.

The only statistically significant variable in this research of those variables was friends' crime history. The hypotheses analysis produced expected results for the friends' crime history variable. The students' perceived deterrent effect of the SRO behaved similarly to the perception of police literature in that students who have friends that have been in trouble with the law are more likely to disagree that police are deterrents to crime off school campuses and the SRO is a deterrent to crime on school campuses. The student's past crimes and family crime history variables did not behave as expected in the perception of police literature. Consequently, perception of police literature for past crimes and family crime history may not serve as a guide for directing expected relationships for student perception of the SRO. This research and the literature may lead one to believe that a strong peer association may be a stronger influence than the family or personal crime histories.

This research produced only two statistically significant schools, School Five and School One. School One was statistically significant for the bullying with force and truancy dependent variables. This may be attributed to the SRO at School One and his or her involvement with the students by either job duties or the student and the SRO relationship. The school administration and the SRO may focus on bullying and truancy prevention which could also increase deterrence.

School Five was statistically significant for 14 of the dependent variables including all of the FBI Part I crimes. In addition, the students' perceived that the SRO was a deterrent to all of the felony crimes except cocaine use. The SRO may achieve these results through the SRO's presence on school campus, the SRO's job duties, student and the SRO relationships, prior arrests of students, or the use of law enforcement

tools such as police K-9. This may be interpreted that the SRO at School Five was more influential toward the students' perception of the SRO as a deterrent to crime than the SROs at the other schools.

There could be other contributing factors to the deterrent effect at School Five. The students at School Five are committing fewer offenses compared to the other schools. School Five had the fewest reported incidents of theft, sexual offenses, bullying, and tobacco possession. School Five was tied for the lowest number of weapon possession and drug sale. The number of documented truancy incidents at School Five was 16. This was nearly eight times fewer than School Four's 121 incidents and almost 29 times fewer than School Three's 465 incidents. The demographics at School Five are similar with that of the school district. There is one additional difference that could explain the school's deterrent effect. The total student population at School Five is between 269 and 1017 students fewer than the other studied schools. The deterrent effect may be a result of the work the SRO or it is possible that the smaller student body may influence the deterrent effect. Smaller schools may afford SROs more quality time to be spent with students. Based on this research, an argument could be made that the students commit fewer crimes at School Five. There may be other factors such as the school administration and teachers policies and procedures that may affect the deterrence rate.

The independent variable SRO exposure was statistically significant in two categories (SRO exposure under 5 years for the crime of marijuana use and SRO exposure 5 – 7 years for the crimes of robbery and bullying without force). The average length of SRO exposure was 6.55 years. In this study the length of SRO exposure was not statistically significant for most of the dependent variables. The descriptive statistics

revealed that for the all of the dependent variables the majority of the students strongly agreed or agreed that the SRO was a deterrent to crime on campus. In this study one could conclude that the length of the SRO exposure for the students is not as important as the SRO presence on the school campus.

The ordinal logistic regression produced several statistically significant variables as discussed above. The percentage of variance, that the regression model explained, was between a high of 12% (sexual assault) to a low of 8% (weapon possession and marijuana sale) with the average variance of 10%. This study examined all of the independent variables in equation 1 and one can conclude that the independent variables effect on the students' perception of the SRO as a deterrent are minimal in this model. The descriptive statistics, however, revealed that the students overwhelmingly perceive the SRO as a deterrent to the studied crimes.

One policy implication is that students' perception of the SRO as a deterrent to the studied crimes does not rely on the student demographics, attributes, or the other independent variables. The SRO deterrent effect, for example, is not concentrated among one race, age, gender, income level, etc. Therefore, SROs in the research site are a student perceived deterrent to crime for the overall student population and not just one group or groups of students. Based on this research with the limitations explained, the SRO should not have to focus deterrent efforts on any one demographic group. School districts with similar population may direct the SROs to work with all students and not direct their activities toward specific groups, such as minorities or poverty level students. The SROs' efforts may be better spent developing bullying programs, police athletic

leagues, prom promise, or other programs to develop positive relationships with the students.

The earlier review of literature noted the amount of funds dedicated to the SRO program may be close to $1 billion annually. One of the goals of law enforcement, school systems, and the public is the allocation of these monies be used for programs that are beneficial. One of the functions of SROs is to deter all criminal activity on school campuses from the less serious crimes of theft for example to the most serious crimes such as homicide or rape. According to the findings, the student perception of the SRO is that the SRO deters crime on school campuses. These student perceptions may lead to a feeling of safety at school and the ability to concentrate on learning. Therefore, improvements in the educational process promote learning, and monies spent on the SRO are beneficial to society.

Another policy implication focuses on the role of the SRO on school campuses. It is important for the SRO to be utilized in a manner to achieve the greatest deterrent effect. This study focused on the use of the triad approach for the SRO. The triad approach defines the role of the SRO as law enforcement, teacher, and counselor (McDaniel, 1999). The triad approach is a unique opportunity that allows students to view SROs in roles other than just the traditional law enforcement officer allowing for positive SRO perceptions to be established. Based on this research with its limitations, SROs using the triad approach were a deterrent to the studied crimes in the perception of the students. It would appear that students in similar populations should have similar deterrent effects. Law enforcement agencies and school districts with similar populations

to those of the sample should consider the triad approach for the SROs as an effective role to be implemented.

One final policy implication should focus on the influence of peers. The review of literature revealed that peer pressure may be a major influence on the students (Megens & Weerman, 2010; Smith, McCall, & McCall, 2006; Schafer, Huebner, & Bynum, 2003). Based on this research with its limitation, the SRO should address the peer influence by interacting with young students to reduce delinquent friends' associations. The SRO should focus efforts to encourage positive peer associations especially with young students entering high school. As stated earlier, SROs can build positive relationships with students and provide the opportunity for the student to establish peer associations with good students through SRO lead programs such as a police athletic league, participation in teen court, and similar experiences.

In summary of the theoretical implications, suggestions for the theory are offered. The findings suggest that the SRO is a deterrent to crime on studied school campuses. The ordinal logistic regression produced several statistically significant variables, but the average percentage of variance explained was 10%. Students who have friends who have been in trouble with the law are more likely to disagree that the SRO is a deterrent to crime on school campuses. Theoretical implications from this research should focus on general deterrence. The friends' crime variable was statistically significant for 17 of the 19 tested crimes. Social learning theory is relevant to the friends' crime variable with respect to the effects of peer pressure on student perceptions.

Recommendations for Future Research

In the 2009-2010 school year, in order to ease the budget constraints faced by the school system the number of SROs for the district was reduced. The SROs were eliminated in the elementary schools. SROs remained in the secondary schools and schools that contained grades kindergarten through eighth grades. One area of future research would be to examine the effect that limiting the SRO exposure would have on the students' perception of the SRO as a deterrent to crime on school campuses. This is important to better understand, as this analysis demonstrates, the relative importance of peer associations as an influential component on student perceptions of SROs. It would be valuable to better understand the impact of SRO exposure over the formative years. The research should take place after students with limited exposure have reached secondary school. In addition, there could be a mixture of students who have longer SRO exposure if they attended a kindergarten through eighth grade school and students with no elementary SRO exposure. . The results of this study could serve as a baseline for comparisons to future research with different SRO exposure levels.

The elimination of the SRO at the elementary schools in the studied school district presents the opportunity to study the crime at these schools before and after the SRO was eliminated from the school. The data could be obtained for the number of crimes committed at the elementary schools with the SRO. After the desired time period has been reached, the number of crimes committed after the SRO has been removed could be compared. The future research would have a set of data with a SRO and a second set of data without a SRO. The statistical method t-test could be used in the

analysis to determine if the two groups of data are statistically different and determine if the SRO was of value as a deterrent.

School Five was statistically significant for 14 of the 20 dependent variables. A qualitative study of the SROs across the sampled schools could be conducted to determine what variables may lead to an increase in the SROs student perceived deterrent effect compared to the other schools. Moreover, it can shed more light on those factors to success or less success across different schools. The SRO could be compared to other SROs through interviews or surveys. The students who participated in the study could be examined to learn why the SRO at that school is more influential than other SROs.

The independent variable that was statistically significant for 17 of the 20 dependent variables was friends' crime history. Based on social learning theory, future research should be conducted in this area to determine what type of crimes that the students' friends have committed that influence the students' perception of the SRO as a deterrent to crime. In addition, the frequency, duration, onset, and value placed in friendships needs to be more closely monitored by SROs. Perhaps future endeavors could explore more SRO and parent contact programs to closely monitor student friend involvement outside and inside school grounds to better control peer groups.

This research examined the students' perception of one type of SRO as a deterrent to specific crimes on school campuses. There are different functions that SROs may perform at the individual schools. The school district may also choose to assign the SROs to a number of schools and essentially employ part-time SROs. Future research could survey students who are exposed to different SROs to determine which type produces the best deterrent to crime on school campuses.

The survey instrument used addressed student perception of the SRO as a deterrent. The results showed that the independent variable, friends' crime history, was statistically significant while the student's past crimes variable was not statistically significant. This area should be researched further to provide more detail about these variables. The friends' crime history and student's past crimes should be researched to determine if the friend or student incurred any school or legal sanctions as a result of the incident. These sanctions or lack of sanctions may influence the students' perception of the SRO as a deterrence to crime on school campuses. The location of the crime is another important factor. Future research should address if the crime occurred on or off school campuses. Crimes that occur off school grounds may limit the students' perception of the SRO as a deterrent to crime on school campuses. The SRO could still have a deterrent effect because the SRO is a representative of law enforcement, but the effects should be studied.

Limitations

While a number of interesting findings emerged from this analysis, a number of limitations must be acknowledged. This study was not experimental because there was a variety of design issues. This research did not have a pre-test, post-test, or a control group. A pilot study, not a pre-te4st was used for this research. The pilot study allowed the survey instrument to be tested and survey directions to be evaluated for clarity. The schools being surveyed did not have data regarding student's perceptions of crime deterrence before the first SRO was assigned to the school. The ability to obtain crime data prior to the assignment of the SRO is severely limited. The crime data would be

almost 20 years old and the schools have changed significantly in demographic composition, size, and atmosphere. These factors could affect the reliability of the data if it was available.

The sample of students surveyed was from one school district or population. This limitation affects the external validity of this research thus reducing the generalizability of the findings to other populations or school districts. The findings may only be compared to other school districts with similar demographic populations. The study does explore the student and SRO relationship that contributed to the knowledge of the SRO as a deterrent to crime in the perception of the student.

This research did not consider all crimes that are committed on school campuses. The review of the literature directed this study to focus on the most serious crimes and the crimes there were most prevalent on school campuses. Therefore, the results may only apply to the specific crimes included in the study. The students were selected from high schools only, which limits the applicability to elementary or middle schools. The sample represents only one type of high schools. The study examined only one type of SRO. Therefore, the results may not be applicable to the other types of SRO programs.

Another drawback is that students were not randomly sampled. The principal at each school used the convenience sampling method. The classrooms to be surveyed were selected by the principal. It was requested that the principals select classes that were demographically representative of the school. The principals selected the classes based on which classes could take the time to complete the surveys. The principals were not willing to sacrifice academic time for the purpose of this study. In addition, principals

selected classes that could benefit from the process of survey completion and classes that would be disrupted the least. Ultimately, the final decision was the principals.

The sample size and demographic composition may not represent the study population. The sample included more females, Caucasians, and seniors, which may limit the ability to generalize to other populations. The sample demographic percentages were 59.9%, 43.1%, and 46.8% respectively. The population demographic percentages were 48.9%, 37.1%, and 17.9% respectively. The larger percentage of Caucasians surveyed in the sample resulted in a smaller percentage of Hispanics being sampled. The Hispanic sample (37.3%) was much lower than the Hispanic population (46.4%) for the school district. The larger percentage of seniors resulted largely in a loss of freshman students. The limitations caused by the sample demographic problem were largely a result of the principal selecting and limiting the classes to be surveyed. The results revealed a weak freshman effect for the student perceived deterrent effect of the SRO and a more representative sample might demonstrate a more prominent effect of peer influence and class standing.

The response rate was not high, but it was good (61.85%). The pilot study was implemented to allow modification to the procedures that could improve the response rate. One issue that arose included a teacher who refused to participate and steps were taken to resolve this issue.

The possibility exists that this study may have overlooked control variables related to the SRO. A control variable that may be considered for future research would be the individual school's discipline rate. Schools that have higher discipline rates may be the deterrent of the crime and not the SRO. The presence of school hall monitors may

reduce the overall deterrent effect of SROs or even render the original relationship spurious. The number of SROs at a school may also impact the perceived deterrent effect of SROs. The school district in this study limited the number of SROs to one or two, but other districts place as many as five SROs at one school. Those control variables may explain the low pseudo R^2.

There are other variables that may have impacted the crime deterrence effect at the schools. The school administration (principal, assistant principal, dean of students, and other designated administration) or teachers' presence may influence the level of perceived crime deterrence across sampled schools. It may be the policy of the school to have teachers and administrators supervising in common areas that contain students. This would have a direct impact on the deterrent effect. Another limitation could be the strictness of the school administration. A very strict discipline policy could deter crime.

This study examined only one type of SRO. The school district and local law enforcement partnership designates that all SROs receive the same training. Therefore, the SROs perform similar functions at each school within the district. In addition, this study did not take into account police officers, in the neighborhood, who may have influenced the results.

The survey also had limitations that may have affected the results. The data was self reported. Research has shown that with self reported data, not all respondents answer questions honestly because they may be embarrassed or afraid to reveal their involvement in crime and deviance (Thornberry & Krohn, 2000; Hindelang, Hirschi, & Weis, 1979). It is noted that the survey did include names, and the students were instructed that their names from the permission slips would never be revealed. Another limitation of the

study may have been the way respondents could have interpreted the questions. The survey question, have you ever been in trouble with the law, could have been interpreted different ways. For example a student may believe that a traffic citation does not mean they have been in trouble with the law since they were not arrested and they may not include the incident in the survey. Similarly, questions about family members or friends having trouble with the law (arrested, traffic ticket, or other trouble) could have different interpretations. The survey clearly explained what was included for the family member's trouble with the law, but the students and students' friends' legal involvement were not explained in detail.

A final limitation is the variable recoding procedure. In ordinal logistic regression, collapsing a cell with few observations is an acceptable procedure (Kim, Lee, & Park, 2001). The results of this procedure create variable categories that are no longer equally distributed. The final categories were strongly agree, agree, neutral, and the combined category of disagree and strongly disagree. The combination of categories may have an effect on the regression analysis. It is noted that the regression analysis with the original variable categories was completed and the results were compared to the model with the collapsed variables. The result of the comparison showed minimal differences.

In summary, this research included several limitations that could affect the validity of the research. Steps were taken to reduce the consequences of these limitations. This study did expand the knowledge of the SRO as a student perceived deterrent effect to crime on school campuses. There were several statistically significant results and this research contributed to the literature around deterrence theory.

APPENDIX A. SURVEY OF STUDENTS' PERCEPTION OF THE SCHOOL RESOURCE OFFICER

Survey of Students' Perception of the School Resource Officer

The purpose of this study is to evaluate the impact of School Resource Officers (SRO) on young peoples' views and attitudes about the police and crime. Therefore, you are being asked to take part in survey that focuses on gathering young peoples' view about a very important social matter. Your participation is very important to this research and to the theoretical development of police research. This survey will be included in a study titled The School Resource Officer in Public Schools: Perceived Deterrent Effects on Campus Crime.

This is a request for completely voluntary participation, your responses will remain totally confidential, and you will not receive benefits for participation. Neither your name nor any other identifying information will be asked or recorded on the survey. You are assured that the researcher will maintain confidentiality of results. Only general or aggregate findings from the survey such as average responses and percentages will be published and not individual answers. This research study has been reviewed and approved by the UCF Institutional Review Board. Questions or concerns about research participants' rights may be directed to the UCF IRB office, University of Central Florida, Office of Research & Communication, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 (407-823-2901). If you have any concerns regarding this study you can contact the UCF IRB office, the Study Director David A. Rhinehart, UCF Ph.D. Public Affairs student, [redacted] (d-rhine@hotmail.com), or the Study's Faculty Supervisor Dr. R. Cory Watkins, Department of Criminal Justice and Legal Studies, 407-823-0365 (rwatkins@mail.ucf.edu).

***Instructions*:** Crime on school grounds and young peoples' perception of police officers is currently a hot topic in the field of criminal justice. In order to evaluate School Resource Officer (SRO) programs, we need to understand the students' views about police and crime in general. Therefore, we would like you to please take this time to answer some questions concerning your opinion about your perception of police officers and crime.

Please answer all questions as accurately as possible and remember that all of your answers are completely confidential. You may stop participating at any time.

Thank you in advance for your participation in this important effort.

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David A. Rhinehart

Section I:

Seriousness: Research has indicated that high school students often have a different view on the seriousness of delinquent behavior in comparison to non-high school students. By **circling** the appropriate response please indicate, **whether you think it is wrong to:**

	Strongly Agree	Agree	Neutral	Disagree	Disagree Strongly
1. Attack with a weapon to seriously hurt someone.	1	2	3	4	5
2. Use a weapon to get money from people.	1	2	3	4	5
3. Hit and hurt someone badly enough to need medical help	1	2	3	4	5
4. Take a car or motorcycle for a ride without the owner's permission.	1	2	3	4	5
5. Damage or destroy someone else's property on purpose.	1	2	3	4	5
6. Sell marijuana on school property.	1	2	3	4	5
7. Sell cocaine or other drugs on school property	1	2	3	4	5
8. Fight in school.	1	2	3	4	5
9. Bring weapons to school for protection.	1	2	3	4	5
10. Kill someone.	1	2	3	4	5
11. Rape someone.	1	2	3	4	5
12. Touch someone sexually against their will on the breast, genital, or buttock areas.	1	2	3	4	5
13. Take someone's property by force.	1	2	3	4	5
14. Take someone's property without permission.	1	2	3	4	5
15. Threaten to hurt someone with a weapon.	1	2	3	4	5
16. Bully someone in any manner.	1	2	3	4	5
17. Use tobacco.	1	2	3	4	5
18. Possess tobacco.	1	2	3	4	5

Section II:

Perceptions: Since students your age, are more likely to come into contact with the police for various reasons, students often view the police as either fair or unfair based upon the interaction they have had with the police. Therefore, we would like to know your perception of the police. Please indicate your answer by **circling** the appropriate response.

	Strongly Agree	Agree	Neutral	Disagree	Disagree Strongly
19. If you have had contact with the police, you think the police treat you fairly.	1	2	3	4	5
20. You think the police arrest people just because they are black or other minorities.	1	2	3	4	5
21. You feel that the police are always picking on blacks or other minorities.	1	2	3	4	5
22. You feel that the police are always picking on high-school age kids.	1	2	3	4	5
23. You think that police officers are the same as each other or do you think that there are big differences between police officers.	1. Very much the same 2. Somewhat different 3. Very different from each other 4. Not at all alike				

Section III:

Attitudes: Research has indicated that high school students often hold a very different view of the police in comparison to non-high school students. Please indicate, by **circling** the appropriate response your view of police in general. **Would you say**

	Strongly Agree	Agree	Neutral	Disagree	Disagree Strongly
24. You like the police.	1	2	3	4	5
25. You have a lot of respect for the police.	1	2	3	4	5
26. If you needed help, you would go to a police officer.	1	2	3	4	5
27. You think the School Resource Officer at your school helps prevent the following crimes from being committed at school.					
a. Homicide	1	2	3	4	5
b. Rape	1	2	3	4	5
c. Sexual Assault	1	2	3	4	5
d. Theft by force (robbery)	1	2	3	4	5
e. Threaten someone with a weapon	1	2	3	4	5
f. Battery (touch or strike someone against their will)	1	2	3	4	5
g. Possession of weapon	1	2	3	4	5
h. Theft	1	2	3	4	5
i. Bullying without force	1	2	3	4	5
j. Bullying with force	1	2	3	4	5
j. Tobacco use by a juvenile	1	2	3	4	5
k. Tobacco possession by a juvenile	1	2	3	4	5
k. Truancy or skipping class	1	2	3	4	5
l. Use Marijuana at school	1	2	3	4	5
m. Use Cocaine at school	1	2	3	4	5
n. Use other drugs at school	1	2	3	4	5
o. Sell Marijuana at school.	1	2	3	4	5
p. Sell Cocaine at school	1	2	3	4	5
q. Sell other drugs at school	1	2	3	4	5

Section IV:

Perceived likelihood of identification: Often students witness behavior that is inappropriate for the school environment. Research has indicated that even though this behavior occurs it often goes unpunished. Therefore, what is the likelihood that someone committing the following offenses (acts) listed below would be caught? Please indicate your answer by **circling** the appropriate response **that you believe the offender will not get caught if they:**

	Strongly Agree	Agree	Neutral	Disagree	Disagree Strongly
28. Vandalize (damage) school property.	1	2	3	4	5
29. Sell drugs on school property.	1	2	3	4	5
30. Threaten another student on school property.	1	2	3	4	5
31. Carry a weapon a weapon on school property.	1	2	3	4	5
32. Drink alcohol on school property.	1	2	3	4	5
33. Skip class.	1	2	3	4	5
34. Use drugs on school property.	1	2	3	4	5

Section IV:

Demographics: It is important that the survey reflect the ethnic makeup of the school. Please complete the following section to ensure that all ethnic groups are represented.

35. Is your mother currently employed? 1. Yes 2. No 3. Don't Know
36. Is your father currently employed? 1. Yes 2. No 3. Don't Know
37. Who do you live with? 1. Mother 2. Father 3. Both 4. Other
38. Does the person you live with rent or own the home you live in? 1. Rent 2. Own 3. Don't Know
39. Has any member of your family been in trouble with the law (arrested, traffic ticket, or other trouble)? 1. Yes 2. No 3. Don't Know
40. Have you ever been in trouble with the law? 1. Yes 2. No
41. Has any of your friends ever been in trouble with the law? 1. Yes 2. No
42. Do you qualify for the free or reduced lunch program? 1. Yes 2. No
43. What is your gender? 1. Male 2. Female
44. What is your class standing? 1. Freshman 2. Sophomore 3. Junior 4. Senior
45. What is your age? _____
46. Does your school have a SRO? 1. Yes 2. No
    If yes, what is his or her name? _____
47. How many years have you been in a school with a SRO (Estimate)? _____
48. What is your race or ethnicity? 1. African- American 2. Hispanic/Chicano/Latino
    3. Caucasian 4. Asian-American 5. Native-American 6. Other _____

COMMENTS: We would appreciate any observations or suggestions you would like to record. Your comments will receive our very careful attention. Please add additional pages if needed.

THANK YOU
FOR YOUR PARTICIPATION

APPENDIX B: SCHOOL BOARD SURVEY APPROVAL REQUEST LETTER

David A. Rhinehart
3164 Forest Breeze Way
St. Cloud, Fl 34771
407-709-3273
Depdar1@aol.com

May 2, 2007

Jim DiGiacomo
Deputy Superintendent
[redacted]

Dear Sir;

I am a Ph.D. Public Affairs student at the University of Central Florida. Presently I am working on my dissertation. The focus of the dissertation is the school resource officer in public schools and its perceived deterrent effects on campus crime. As part of the dissertation, a survey (see attached survey) will be given to high school students in [redacted] County High Schools that have a School Resource Officer. The survey will be anonymous and completely voluntary. The results will be recorded in aggregate or general form. Individual answers will not be used or linked to the study. Before the survey will be given, the University of Central Florida Institutional Review Board will grant approval to ensure that no harm will result from the survey process.

I am requesting permission to conduct the survey in [redacted].
The implementation of the survey will be done at the convenience of the school's principal. The principal will choose the time and classes to be surveyed.

Thank you for your consideration in this matter.

Sincerely,

David A. Rhinehart

APPENDIX C: SCHOOL BOARD SURVEY PERMISSION LETTER

Jim DiGiacomo
Deputy Superintendent
Osceola County School Board
817 Bill Beck Blvd.
Kissimmee, FL 34744
407-870-4600

University of Central Florida Institutional
Review Board Office of Research &
Commercialization 12201 Research
Parkway, Suite 501 Orlando, FL 32826-3246

To Whom It May Concern:

David A. Rhinehart is a Ph.D. Public Affairs student at the University of Central Florida. The focus of his dissertation is the school resource officer in public schools and its perceived deterrent effects on campus crime. As part of his dissertation a survey will be given to high school students in Osceola County High Schools that have a School Resource Officer. The survey will be anonymous and completely voluntary. The results will be recorded in aggregate or general form. Individual answers will not be used or linked to the study.

All research of this type must be approved by the Osceola County School Board District Office. I have reviewed the survey and the Osceola County School System is granting David A. Rhinehart permission to conduct the survey in Celebration High School, Gateway High School, Harmony High School, Osceola High School, Poinciana High School, and St. Cloud High School. Due to the nature of the survey, the Osceola County School System will not require parental permission. The implementation of the survey will be done at the convenience of the school's principal. The principal will choose the time and classes to be surveyed.

If there is any other information you need, please feel free to contact me.

Sincerely,

Deputy Superintendent
Jim DiGiacomo

JlpRTT

APPENDIX D: IRB APPROVAL 2007

University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901, 407-882-2901 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

Notice of Expedited Initial Review and Approval

From : **UCF Institutional Review Board**
FWA00000351, Exp. 5/07/10, IRB00001138

To : **David Rhinehart**

Date : **August 07, 2007**

IRB Number: **SBE-07-05083**

Study Title: **The School Resource Officer in Public Schools: Perceived Deterrent Effect on Campus Crime**

Dear Researcher:

Your research protocol noted above was approved by **expedited** review by the UCF IRB Vice-chair on 8/6/2007. **The expiration date is 8/5/2008.** Your study was determined to be minimal risk for human subjects and expeditable per federal regulations, 45 CFR 46.110. The categories for which this study qualifies as expeditable research are as follows:

6. Collection of data from voice, video, digital, or image recordings made for research purposes.

7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

The IRB has approved a **consent procedure which requires participants to sign consent forms.** Use of the approved, stamped consent document(s) is required. Only approved investigators (or other approved key study personnel) may solicit consent for research participation. Subjects or their representatives must receive a copy of the consent form(s).

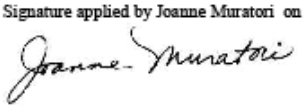
All data, which may include signed consent form documents, must be retained in a locked file cabinet for a minimum of three years past the completion of this research. Any links to the identification of participants should be maintained on a password-protected computer if electronic information is used. Additional requirements may be imposed by your funding agency, your department, or other entities. Access to data is limited to authorized individuals listed as key study personnel.

To continue this research beyond the expiration date, a Continuing Review Form must be submitted 2 – 4 weeks prior to the expiration date. Advise the IRB if you receive a subpoena for the release of this information, or if a breach of confidentiality occurs. Also report any unanticipated problems or serious adverse events (within 5 working days). Do not make changes to the protocol methodology or consent form before obtaining IRB approval. Changes can be submitted for IRB review using the Addendum/Modification Request Form. An Addendum/Modification Request Form **cannot** be used to extend the approval period of a study. All forms may be completed and submitted online at http://iris.research.ucf.edu .

Failure to provide a continuing review report could lead to study suspension, a loss of funding and/or publication possibilities, or reporting of noncompliance to sponsors or funding agencies. The IRB maintains the authority under 45 CFR 46.110(e) to observe or have a third party observe the consent process and the research.

On behalf of Tracy Dietz, Ph.D., UCF IRB Chair, this letter is signed by:

Signature applied by Joanne Muratori on 08/07/2007 12:36:35 PM EDT



APPENDIX E: IRB CONTINUED APPROVAL 2008

University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901, 407-882-2012 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

EXPEDITED CONTINUING REVIEW APPROVAL NOTICE

From : **UCF Institutional Review Board**
FWA00000351, Exp. 6/24/11, IRB00001138

To : **David Rhinehart**

Date : **July 10, 2008**

IRB Number: **SBE-07-05083**

Study Title: **The School Resource Officer in Public Schools: Perceived Deterrent Effect on Campus Crime**

Dear Researcher,

This letter serves to notify you that the continuing review application for the above study was reviewed and approved by the IRB Chair on **7/9/2008** through the expedited review process according to 45 CFR 46 (and/or 21 CFR 50/56 if FDA-regulated).

Continuation of this study has been approved for a one-year period. The expiration date is 07/08/2009. This study was determined to be no more than minimal risk and the category for which this study qualified for expedited review is:

7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

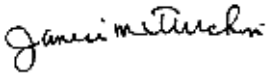
Use of the approved, stamped consent document(s) is required. The new form supersedes all previous versions, which are now invalid for further use. Only approved investigators (or other approved key study personnel) may solicit consent for research participation. Subjects or their representatives must receive a copy of the consent form(s).

All data must be retained in a locked file cabinet for a minimum of three years (six if HIPAA applies) past the completion of this research. Any links to the identification of participants should be maintained on a password-protected computer if electronic information is used. Additional requirements may be imposed by your funding agency, your department, or other entities. Access to data is limited to authorized individuals listed as key study personnel.

To continue this research beyond the expiration date, a Continuing Review Form must be submitted 2 – 4 weeks prior to the expiration date. Use the Unanticipated Problem Report Form or the Serious Adverse Event Form (within 5 working days of event or knowledge of event) to report problems or events to the IRB. Do not make changes to the study (i.e., protocol methodology, consent form, personnel, site, etc.) before obtaining IRB approval. Changes can be submitted for IRB review using the Addendum/Modification Request Form. An Addendum/Modification Request Form **cannot** be used to extend the approval period of a study. All forms may be completed and submitted online at https://iris.research.ucf.edu .

On behalf of Tracy Dietz, Ph.D., UCF IRB Chair, this letter is signed by:

Signature applied by Janice Turchin on 07/10/2008 10:33:05 AM EDT



IRB Coordinator

APPENDIX F: PARENTAL INFORMED CONSENT FORM

Parental Informed Consent

March 20, 2008

Dear Parent/Guardian:

Your child has been nominated by his or her teacher to participate in a study that is being conducted for dissertation research in conjunction with the University of Central Florida, College of Health and Public Affairs because he/she has been at a school with a school resource officer for a minimum of five years. Your child's identifying information has not been shared in any way with the researcher at this time. Your child was chosen because he/she meets the criteria for this study and you, as parent, are being offered the opportunity to have your child participate.

The research project involves a survey given to your child. The researcher wants to document and write about your child's opinion about the school resource officer, the job he/she does, and crime in general.

With your consent, your child will be given a survey by a doctoral candidate at the University of Central Florida. The survey will be given during non-instructional time and should take less than 15 minutes. Your child will not receive any compensation for participation.

Your child's name will be kept confidential and will not be used in any report, analysis, or publication. Your child's name will not appear on the survey and this form will not be part of the final report.

Your child will be allowed the right to refuse to answer any questions that make him/her uncomfortable, and he/she may stop participating in this research at any time. Your child will be reminded of this immediately prior to the survey. I have attached a copy of the survey questions for your information.

You may contact me at [redacted] or email at d-rhine@hotmail.com or my professor, Dr. R. Cory Watkins, Department of Criminal Justice and Legal Studies, 407-823-0365 (rwatkins@mail.ucf.edu), for any questions you have regarding the research procedures. Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board (IRB). Questions or concerns about research participants' rights may be directed to the UCF IRB office, University of Central Florida, Office of Research & Commercialization, University Towers, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246, or by campus mail 32816-0150. The hours of operation are 8:00 am until 5:00 pm, Monday through Friday except on University of Central Florida official holidays. The telephone number is (407) 823-2901.

Sincerely,

David A. Rhinehart

____ I have read the procedure described on the previous page.
____ I have received a copy of this form to keep for my records.
____ I have received a copy of the interview questions for my records.
____ I give consent for the primary researcher to give my child the survey.

I voluntarily give my consent for my child, _____, to participate in David Rhinehart's study entitled, "The School Resource Officer in Public Schools: Perceived Deterrent Effect on Campus Crime" and to be given the survey.

_____ /_____
Parent/Guardian Date

_____ /_____
2nd Parent/Guardian Date
(or Witness if no 2nd Parent/Guardian)

Please sign and return one copy of this page to your child's school. Your child should give the form to their teacher.

APPENDIX G: STUDENT ASSENT FORM

Student Assent Form

I am doing a research project on high school student's views on the school resource officer and crime in general. I am interested in how students, like you, view crime in general and your attitudes towards the school resource officer and the job they do. I am conducting this research as part of my studies at the University of Central Florida.

As a way to study this, I would like you to complete a survey. Only Dr. R. Cory Watkins, my professor at UCF, and I will see the survey results. Names will not be recorded in anyway so that nobody will know it was you in my study. It will not affect your grade if you decide you don't want to do this. You can stop participating at any time. If you don't want to complete the survey, you cannot be in the study and your teacher will assign another activity for you. You will not receive any compensation for completing the survey. Would you like to take part in this research project?

____ I agree to take part in Mr. David A. Rhinehart research project.

_____ _____

Student's Signature Date

_____

Student's Printed Name | | | | |

Please put the number of your survey and parent consent form in the boxes above.

APPENDIX H: SURVEY OF STUDENTS' PERCEPTION OF THE SCHOOL RESOURCE OFFICER TEACHER INSTRUCTIONS

Survey of Students' Perception of the School Resource Officer

Teacher Instructions

Teachers,

I am a doctoral candidate in Public Affairs at the University of Central Florida. As part of my dissertation, I am conducting research to determine the students' views of the school resource officer(s) at your school and crime in general. In order to learn the students' views, your help is needed to complete my research. Your principal and the [redacted] County School Board District Office have agreed to allow me to conduct my research at your school. The method that we will be using to learn the students' views is through a survey of selected students. The principal at your school has selected your classroom to complete the Survey of Students' Perception of the School Resource Officer. Please follow the instructions below. If you have any questions, please call me at [redacted]. I would like to thank you in advance for your help. I know that your instructional time is extremely valuable to you and I greatly appreciate you taking the time from your busy day to help me with my research.

Thank you

David A. Rhinehart

1. Please give a parent consent form and survey to each student in your class on the designated day. Students over 18 years old do not need parent consent.
2. Please note on the distribution form the number of surveys/parent consent distributed.
3. Allow the students the designated time period to return the parent consent form.
4. Please announce reminders to the students to return the parent consent form.

5. If the student loses the parent consent form, please give them a second form and make note on the distribution form.
6. On the designated day, please have the students with permission slips complete the survey. Please distribute a survey to students that did not return the original survey. Please ensure that the survey is numbered to match the parent consent form.
7. Please allow the students enough time to complete the survey and collect the survey. The survey should take 20 minutes or less to complete.
8. Please review the instructions for each section of the survey and explain what the high and low numbers mean.
9. Please note on the distribution form the number of surveys collected.
10. Please place the completed surveys, parent consent forms, student assent forms, and distribution form in the provided envelope and seal the envelope.
11. Please return the sealed envelope and extra surveys or forms to David A. Rhinehart or the person designated by your principal on the Distribution Form.

APPENDIX I: SURVEY OF STUDENTS' PERCEPTION OF SCHOOL RESOURCE OFFICER DISTRIBUTION FORM

Survey of Students' Perception of the School Resource Officer

Distribution Form

Distribution Form for School		Designated person	
Teacher		Class Period	
Surveys and Parent Consent Forms distributed on		Number Distributed	
Parent Consent Forms Returned on		Number Returned	
Number of Students given a Second Parent Consent Form			
Number of Students Given a Second Survey			
Number of Students Assent Forms Collected			
Surveys Completed on		Number Completed	

APPENDIX J: SURVEY OF STUDENTS' PERCEPTION OF THE SCHOOL RESOURCE OFFICER TEACHER INSTRUCTIONS FOR PILOT STUDY

Survey of Students' Perception of the School Resource Officer

Teacher Instructions for Pilot Study

Teachers, I am a doctoral candidate in Public Affairs at the University of Central Florida. As part of my dissertation, I am conducting research to determine the students' views of the school resource officer(s) at your school and crime in general. In order to learn the students' views, your help is needed to complete my research. Your principal and the [redacted] County School Board District Office have agreed to allow me to conduct my research at your school. The method that we will be using to learn the students' views is through a survey of selected students. The principal at your school has selected your classroom to complete the Survey of Students' Perception of the School Resource Officer. Please follow the instructions below. If you have any questions, please call me at [redacted]. I would like to thank you in advance for your help. I know that your instructional time is extremely valuable to you and I greatly appreciate you taking the time from your busy day to help me with my research.

Thank you

David A. Rhinehart

1. Please give a parent consent form and survey to each student in your class on the designated day. Students over 18 years old do not need parent consent.
2. Please note on the distribution form the number of surveys/parent consent distributed.
3. Allow the students the designated time period to return the parent consent form.
4. Please announce reminders to the students to return the parent consent form.

5. If the student looses the parent consent form, please give them a second form and make note on the distribution form.
6. On the designated day, please have the students with permission slips complete the survey. Please distribute a survey to students that did not return the original survey. Please ensure that the survey is numbered to match the parent consent form.
7. Please note the time the students start and end the survey on the distribution form.
8. Please allow the students enough time to complete the survey and collect the survey.
9. Please note on the distribution form the number of surveys collected.
10. Please place the completed surveys, parent consent forms, student assent forms, and distribution form in the provided envelope and seal the envelope.
11. Please return the sealed envelope and extra surveys or forms to David A. Rhinehart or the person designated by your principal.

APPENDIX K: DISTRIBUTION FROM FOR PILOT STUDY

Survey of Students' Perception of the School Resource Officer

Distribution Form

Distribution Form for School	PATHS	Designated person	
Teacher			
Surveys and Parent Consent Forms distributed on		Number Distributed	
Parent Consent Forms Returned on		Number Returned	
Number of Students given a Second Parent Consent Form			
Number of Students Given a Second Survey			
Number of Students Assent Forms Collected			
Surveys Completed on		Number Completed	
Survey Start Time		Survey End Time	

APPENDIX L: STUDENTS' RESPONSE DISTRIBUTION FOR THE SRO AS A DETERRENT TO THE DEPENDENT VARIABLES BY SCHOOL AND FOR THE SCHOOL DISTRICT

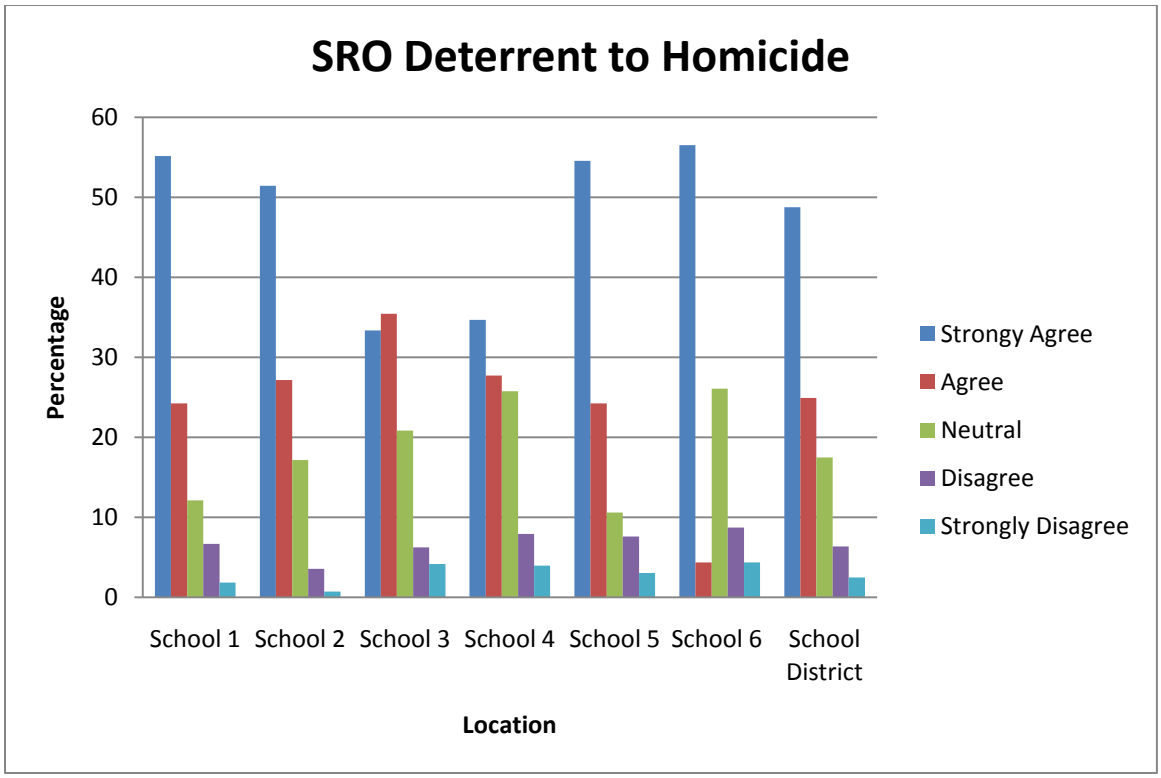


Chart 1: SRO Prevents the Crime of Homicide

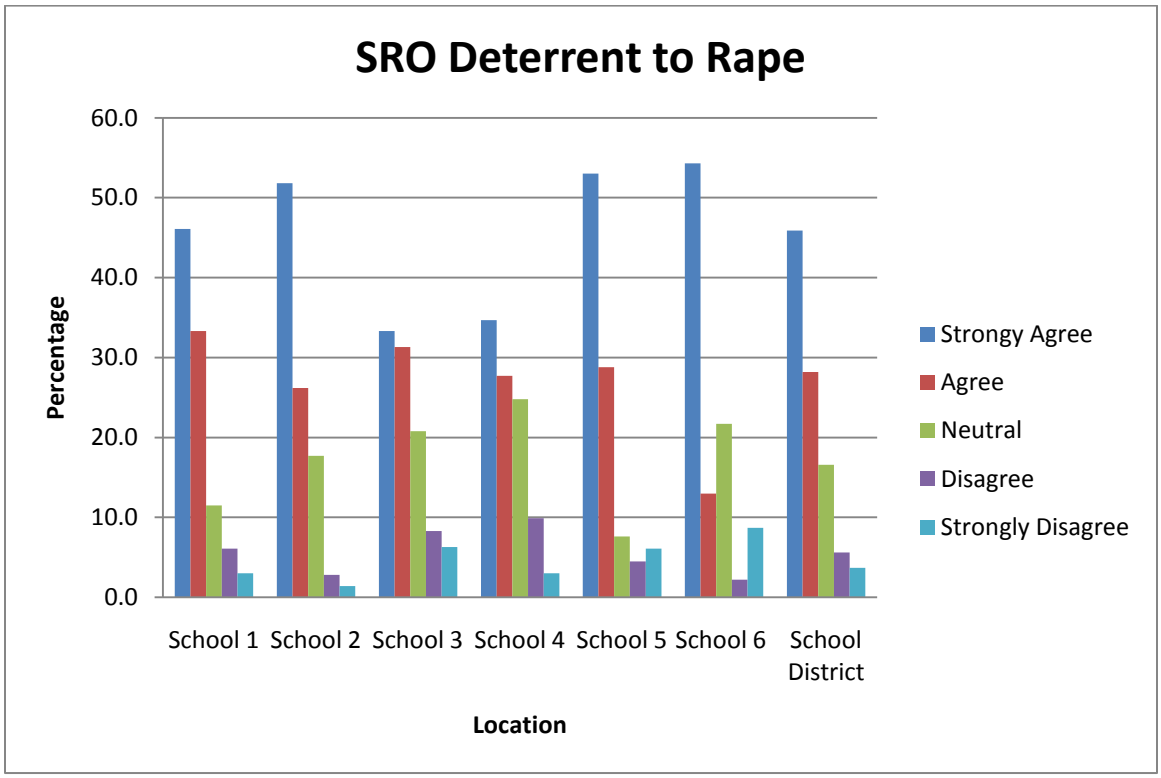


Chart 2: SRO Prevents the Crime of Rape

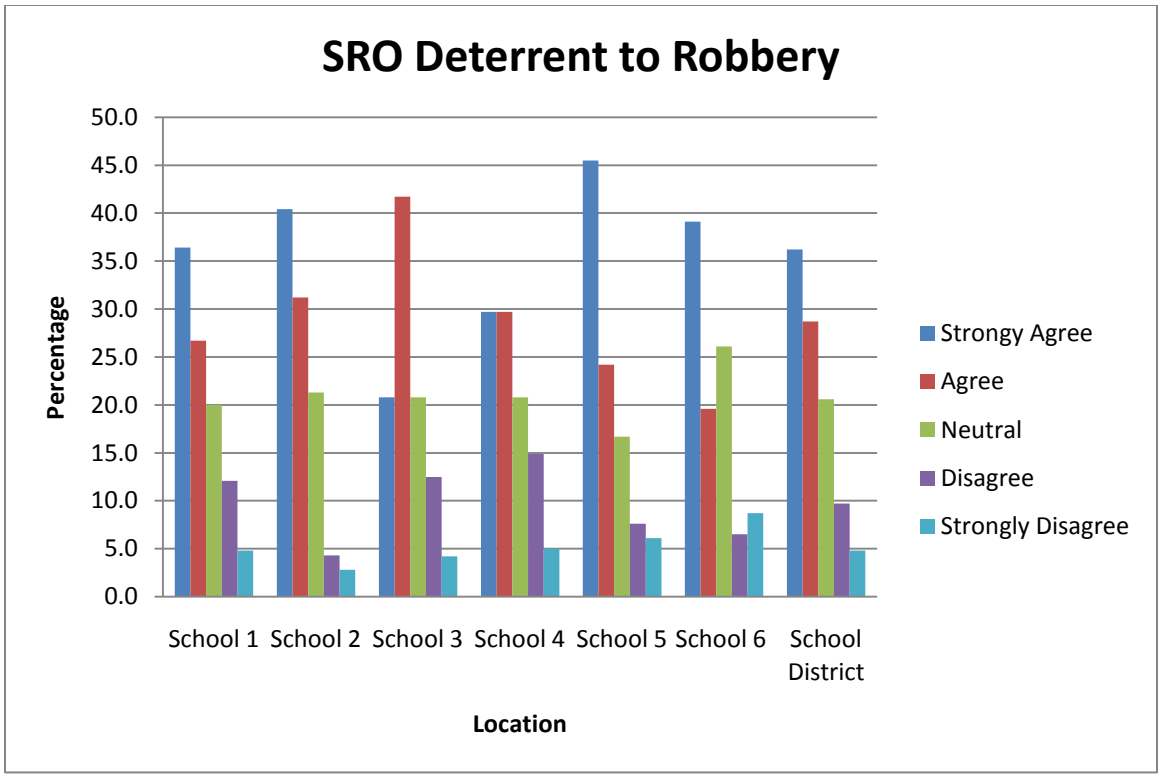


Chart 3: SRO Prevents the Crime of Robbery

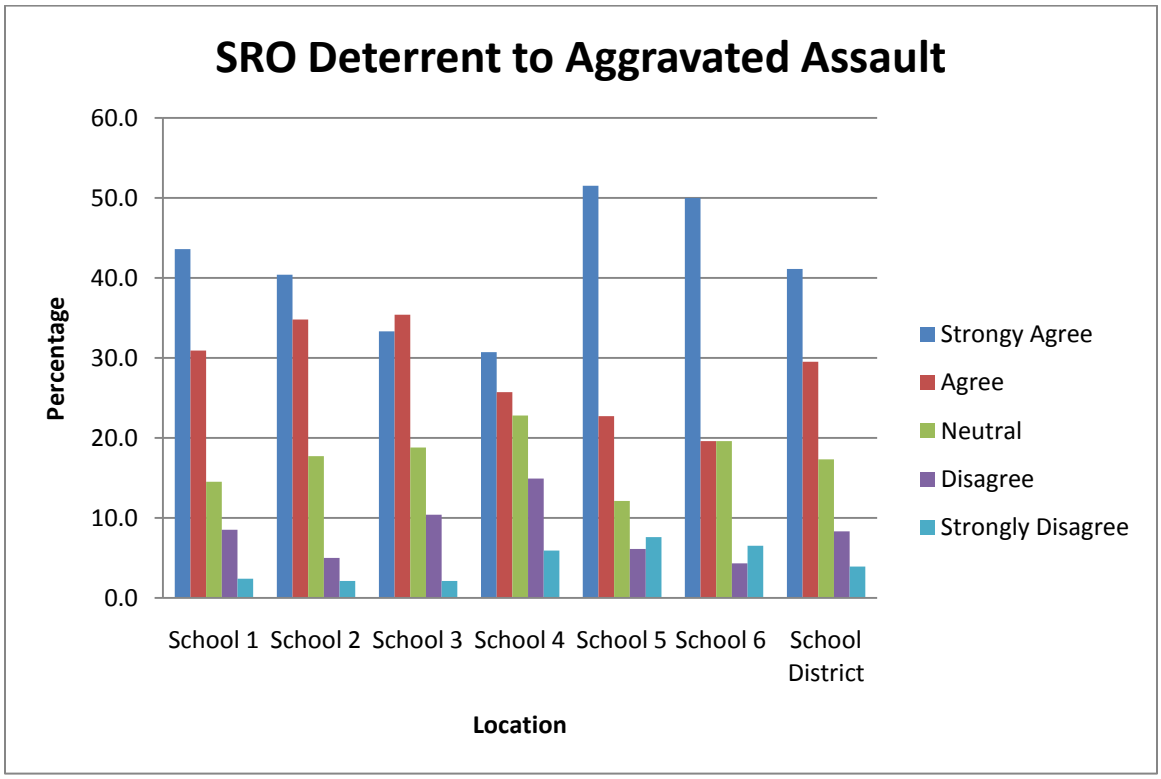


Chart 4: SRO Prevents the Crime of Aggravated Assault

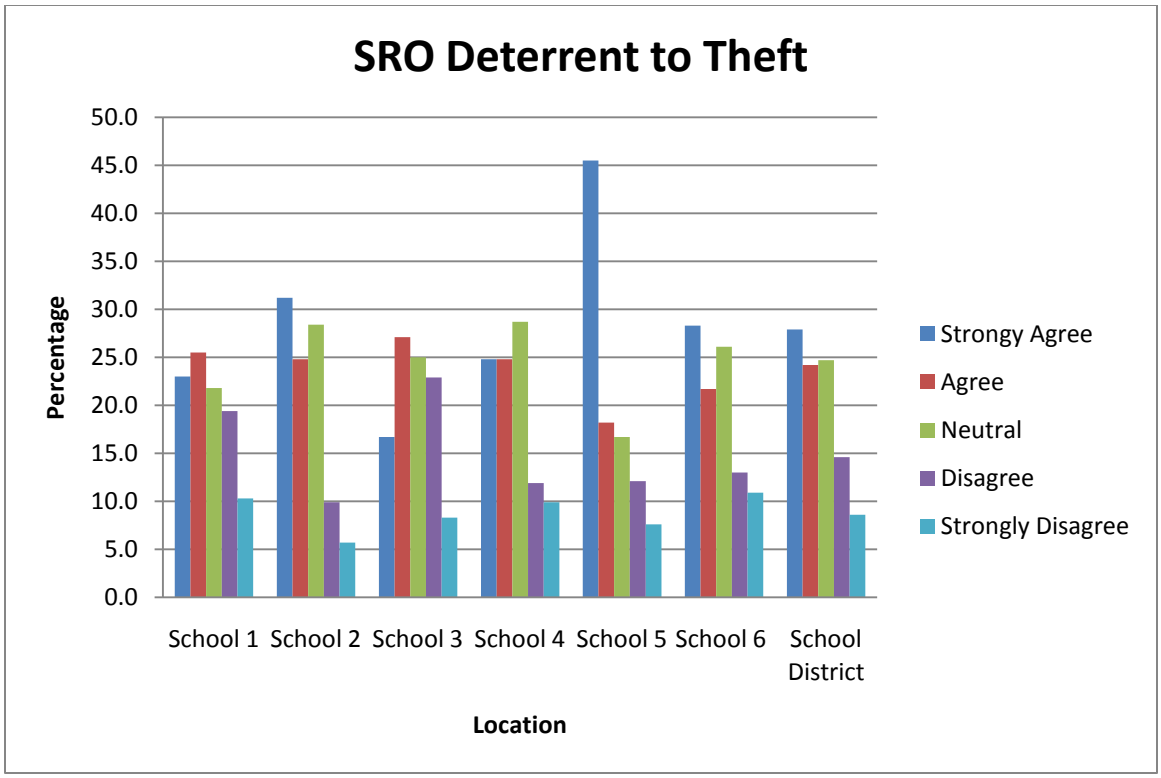


Chart 5: SRO Prevents the Crime of Theft

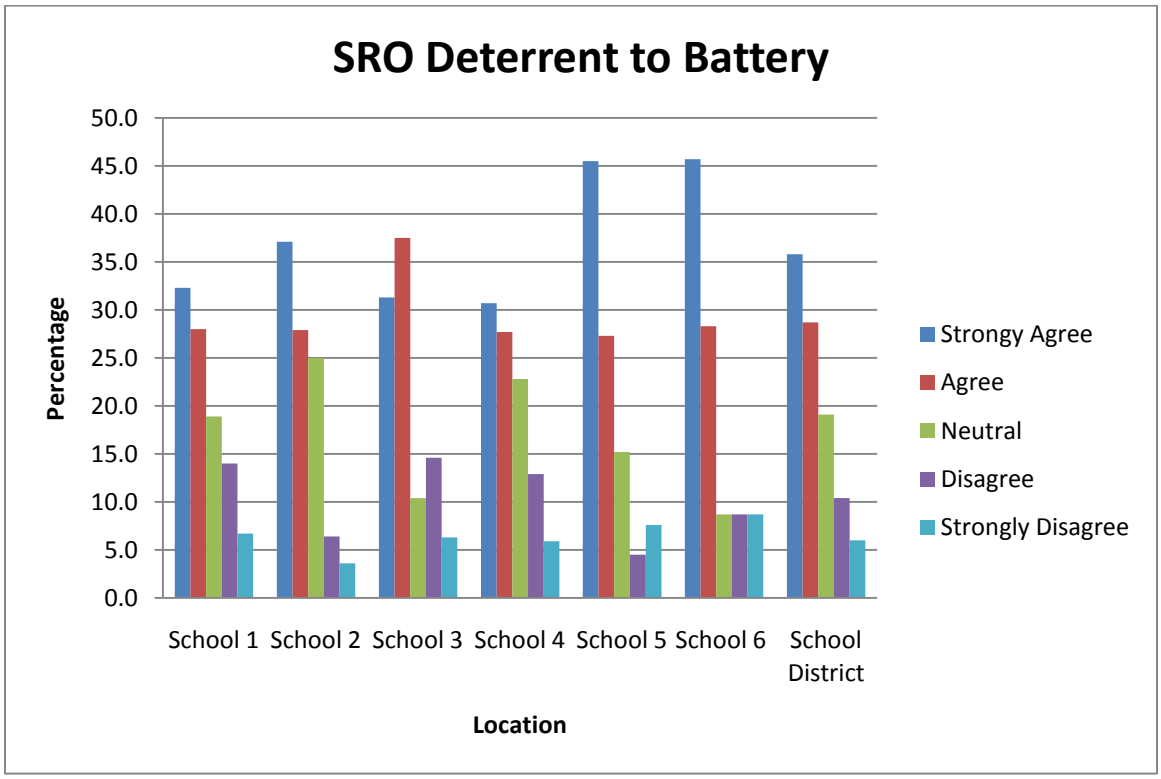


Chart 6: SRO Prevents the Crime of Battery

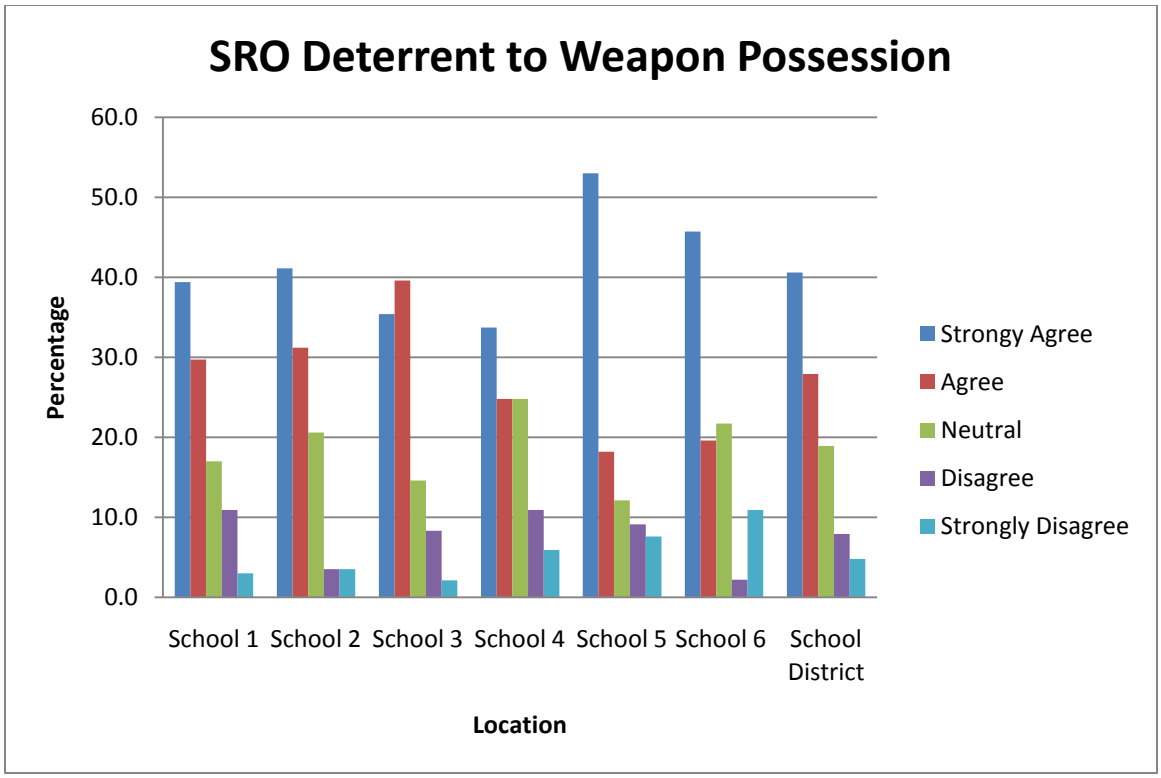


Chart 7: SRO Prevents the Crime of Weapon Possession

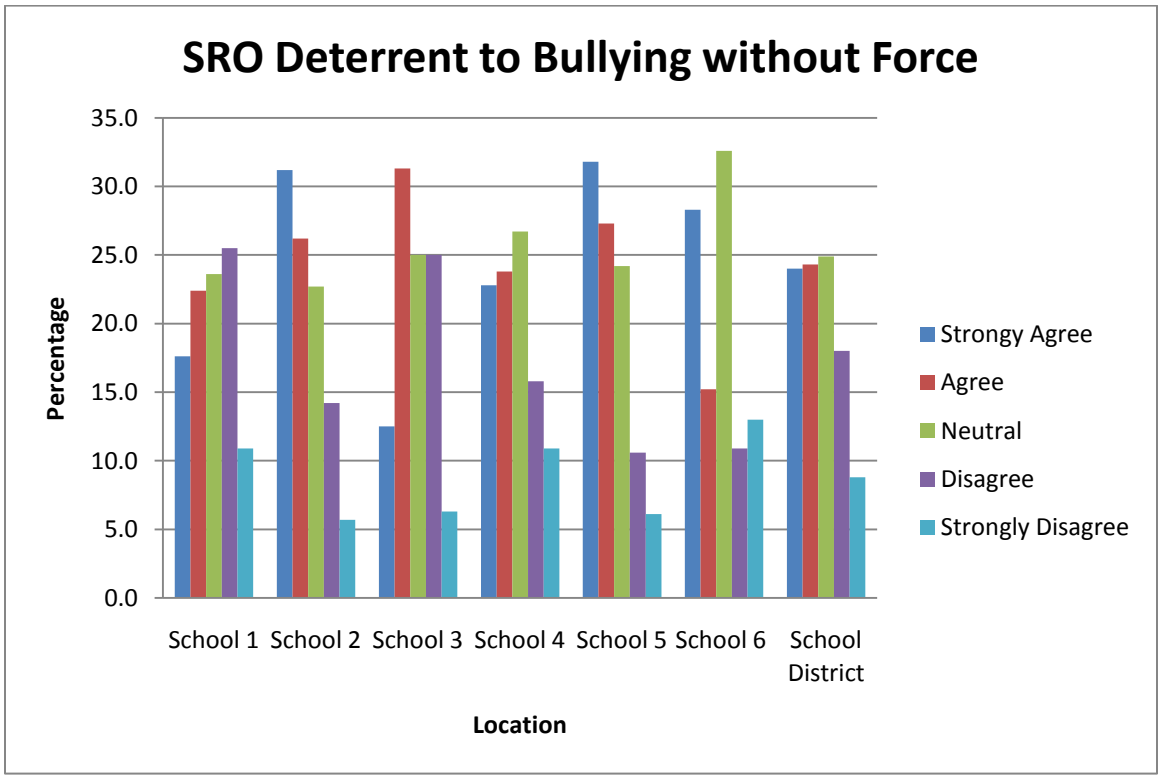


Chart 8: SRO Prevents the Incident of Bullying without Force

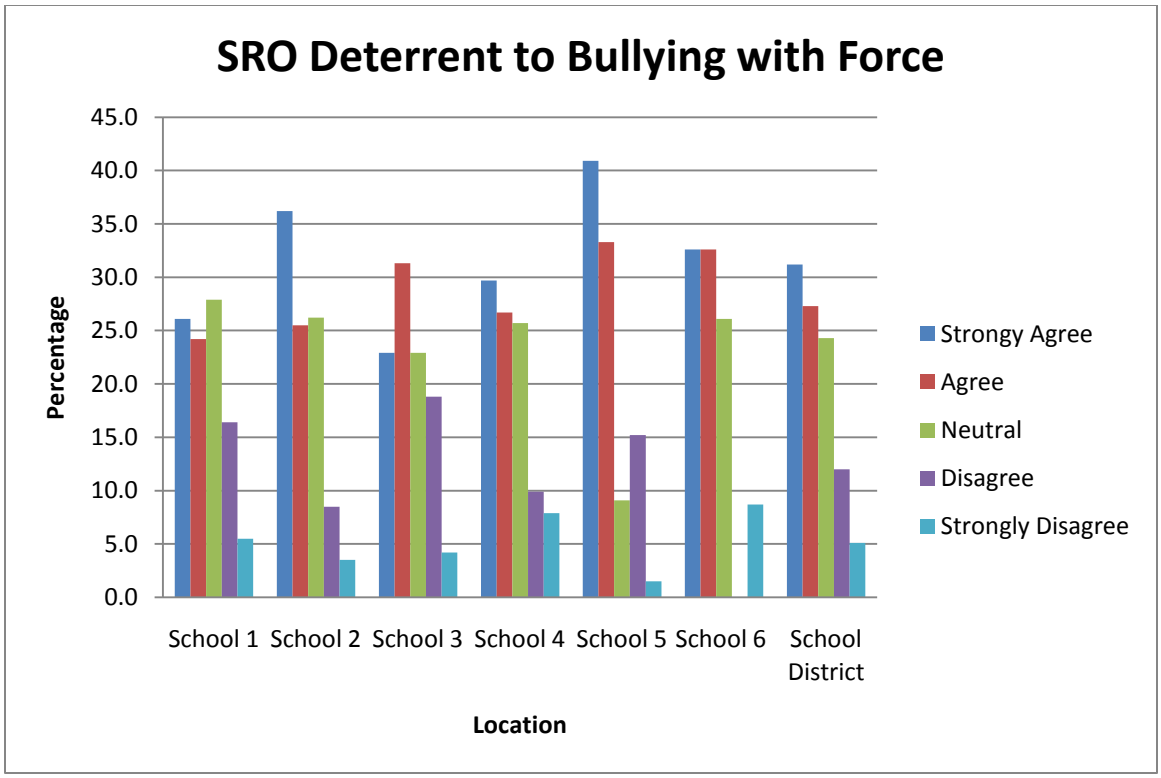


Chart 9: SRO Prevents the Incident of Bullying with Force

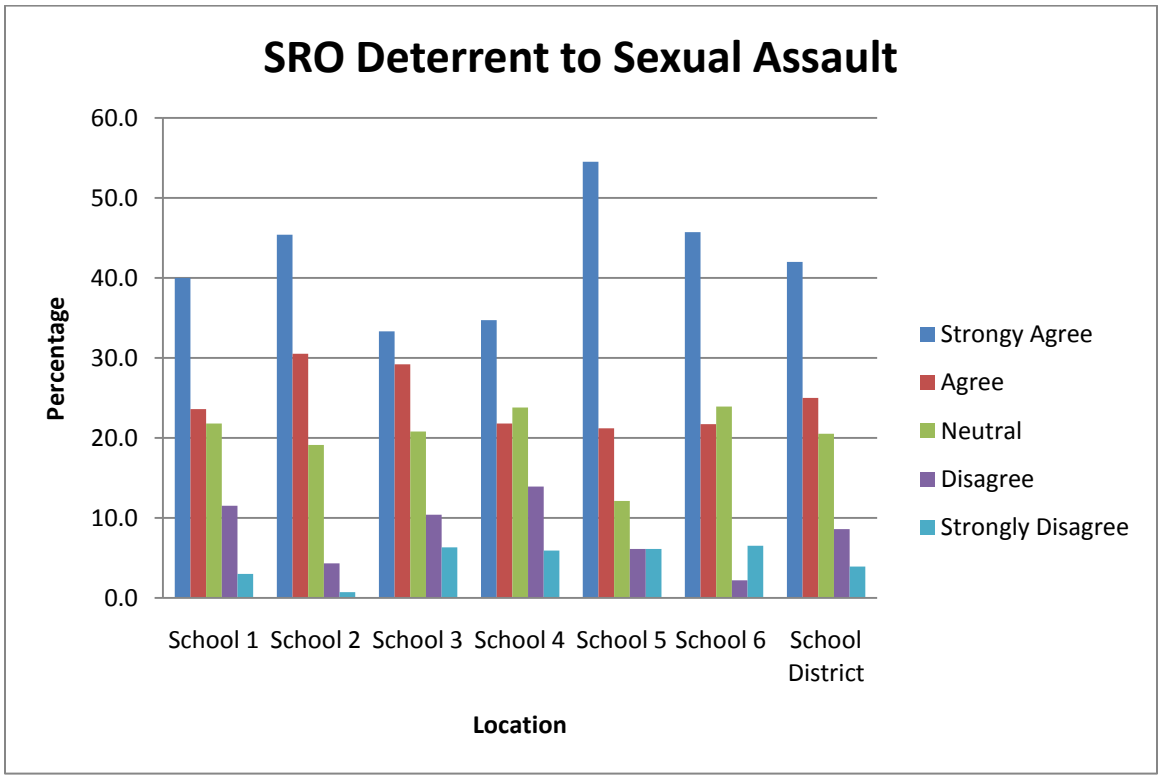


Chart 10: SRO Prevents the Crime of Sexual Assault

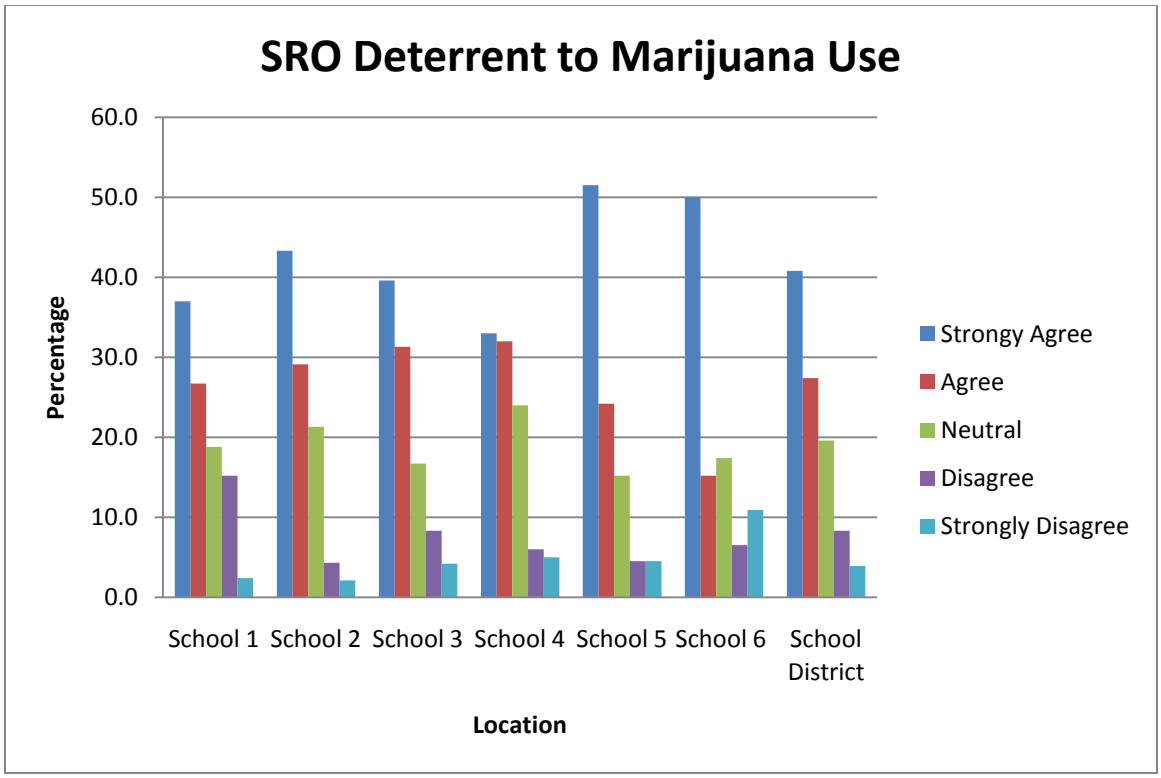


Chart 11: SRO Prevents the Crime of Marijuana Use

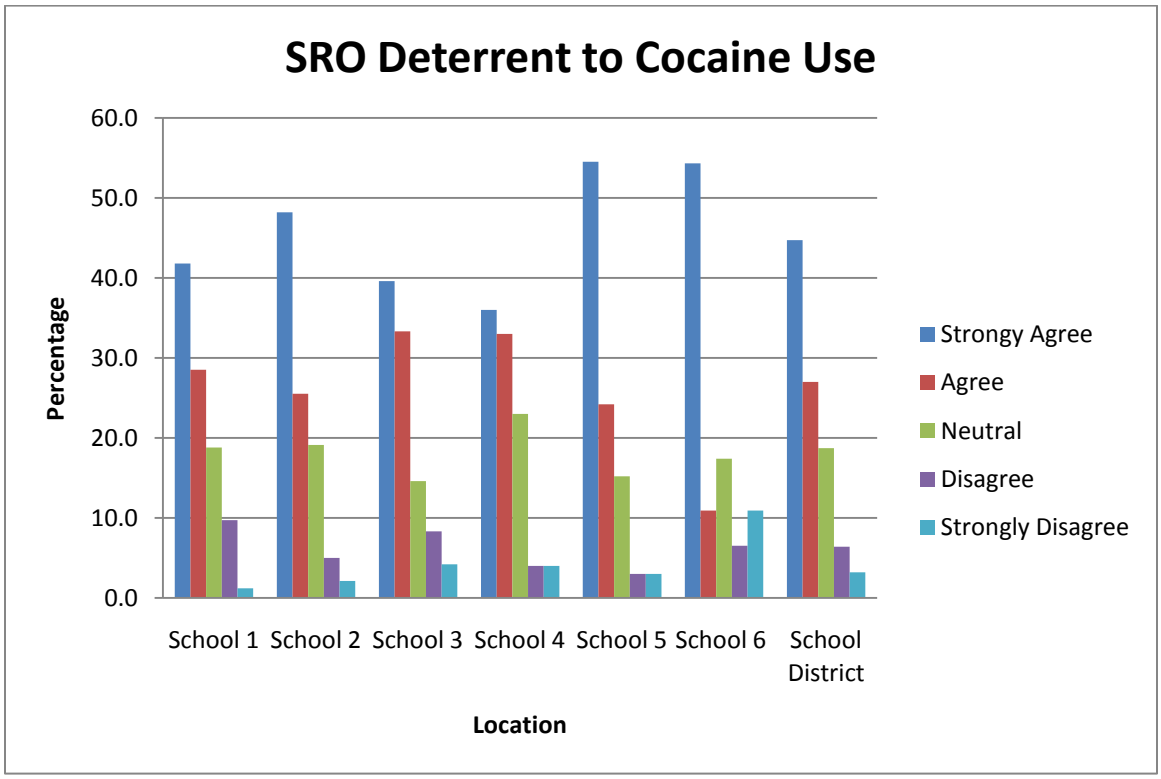


Chart 12: SRO Prevents the Crime of Cocaine Use

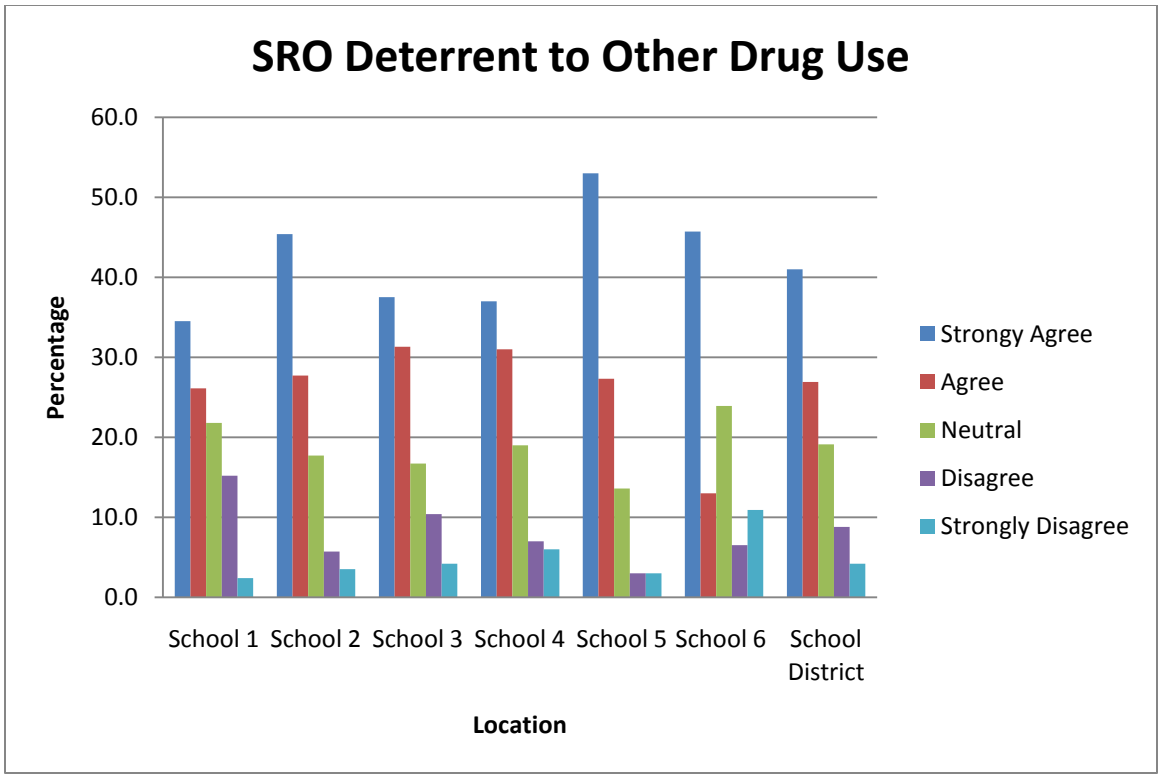


Chart 13: SRO Prevents the Crime of Other Drug Use

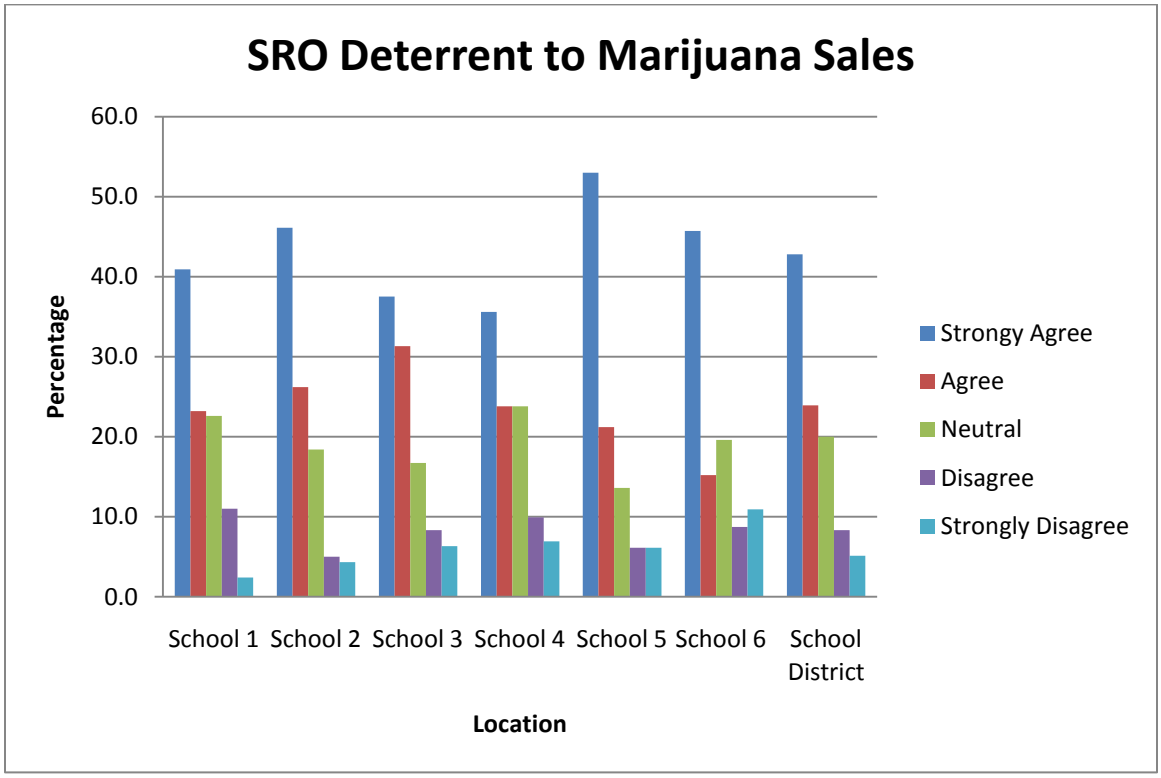


Chart 14: SRO Prevents the Crime of Sale of Marijuana

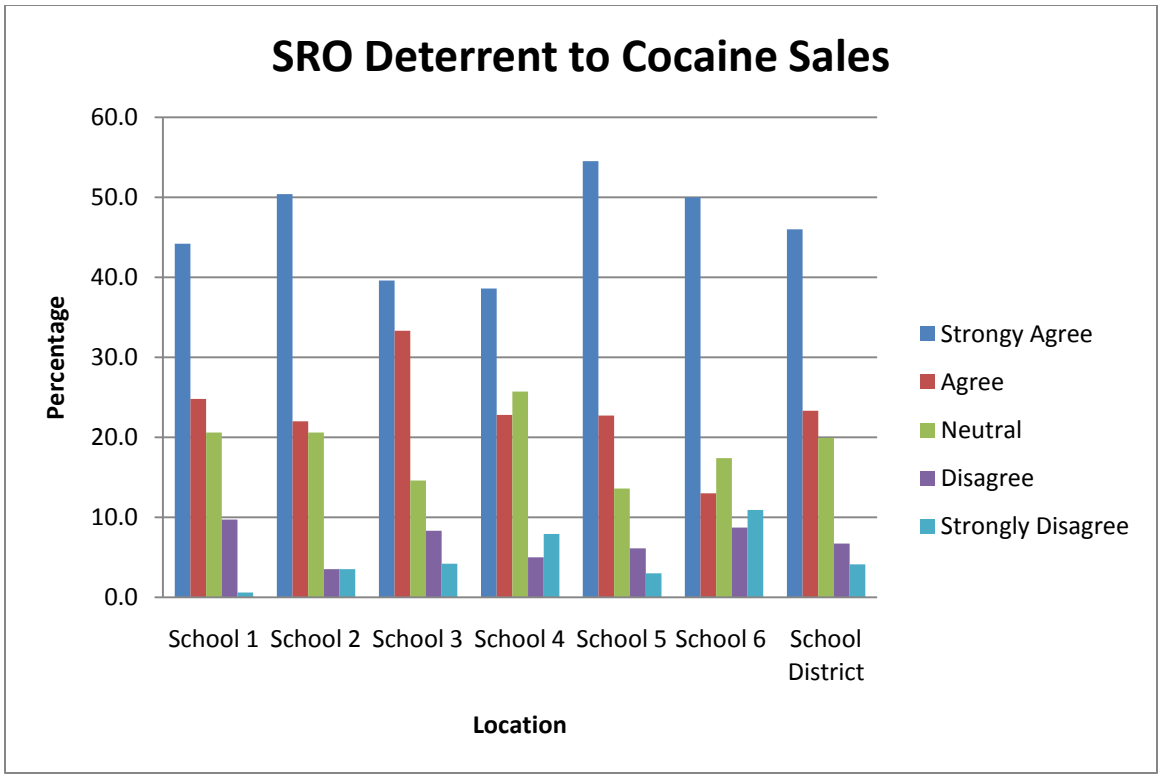


Chart 15: SRO Prevents the Crime of Sale of Cocaine

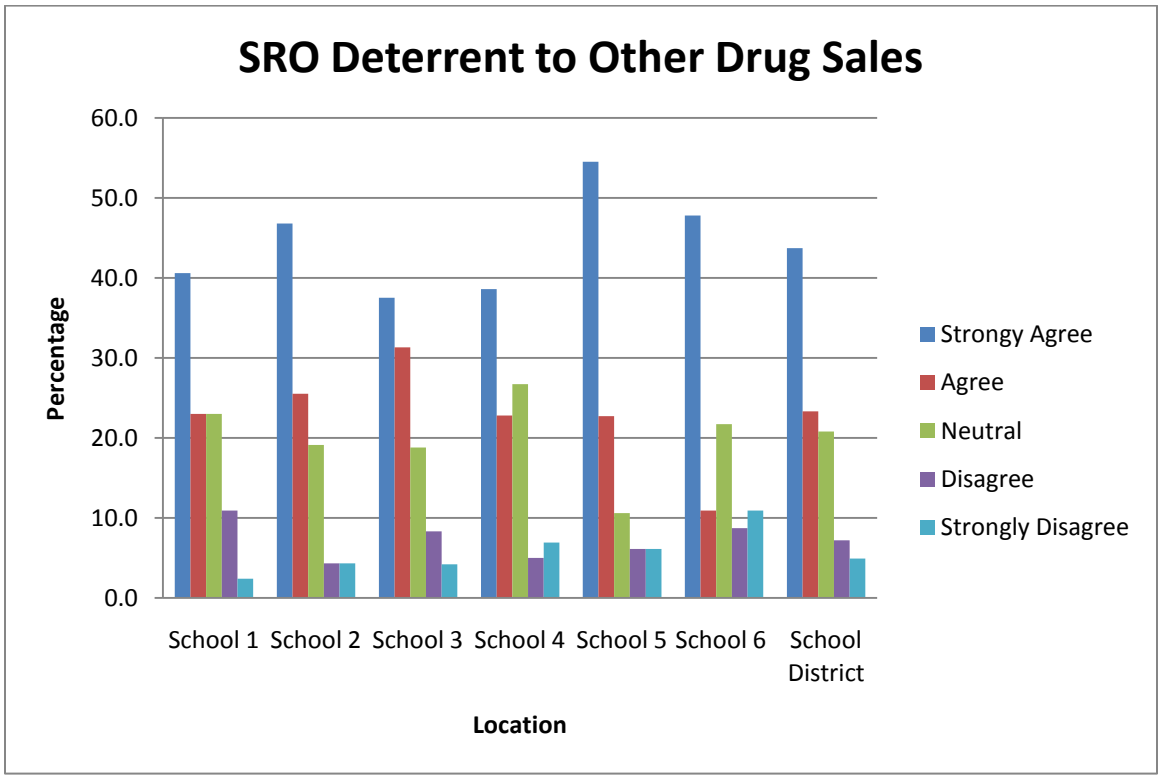


Chart 16: SRO Prevents the Crime of Sale of Other Drugs

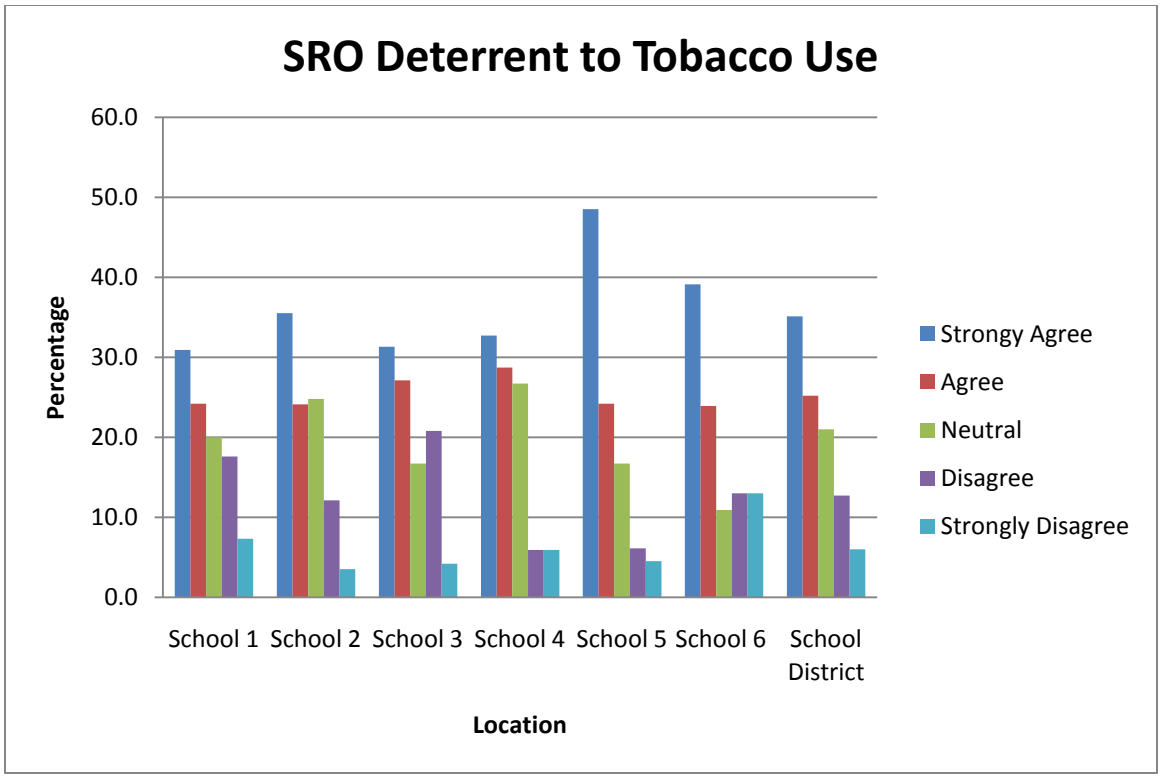


Chart 17: SRO Prevents the Crime of Tobacco Use by Juveniles

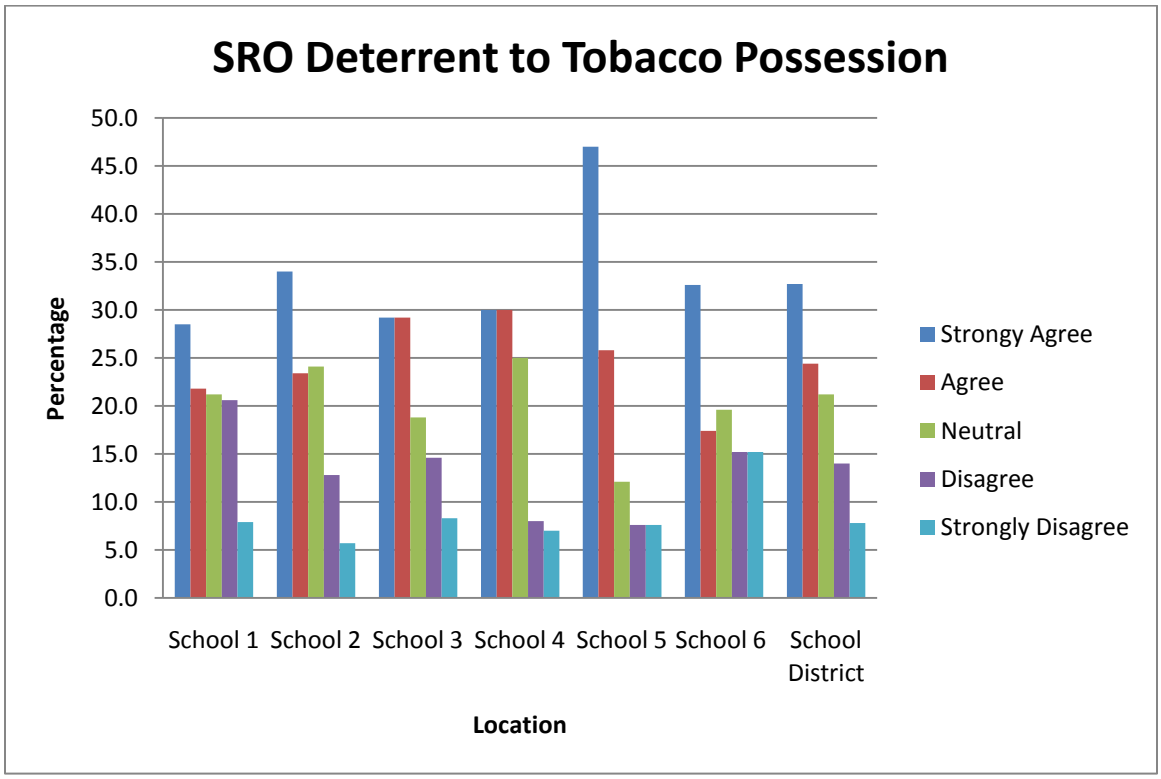


Chart 18: SRO Prevents the Crime of Tobacco Possession by Juveniles

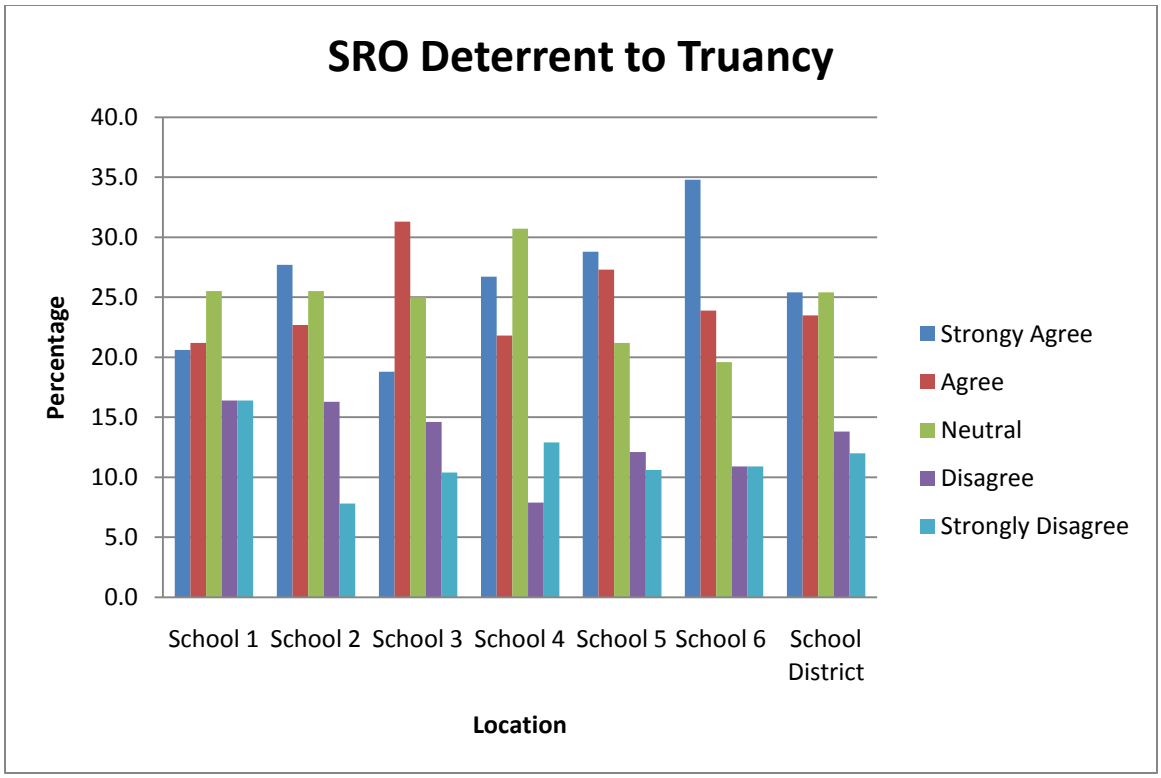


Chart 19: SRO Prevents Truancy

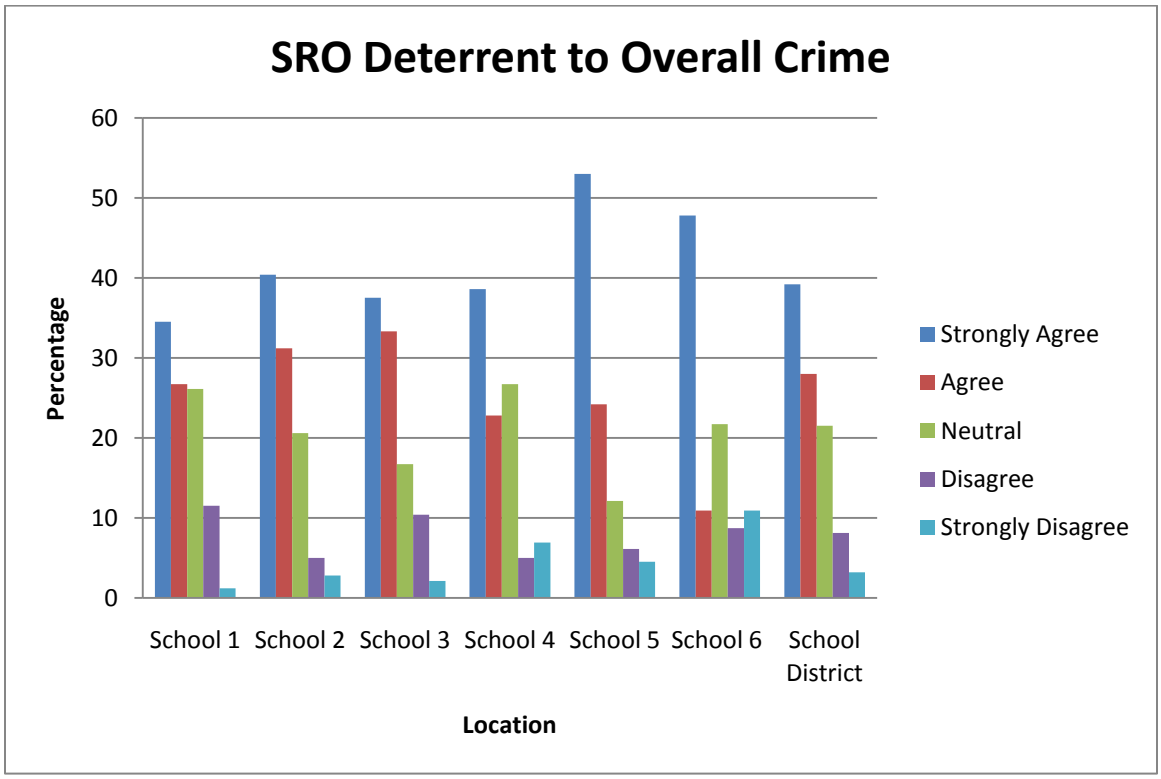


Chart 20: SRO Prevents Overall Crime

APPENDIX M: TABLES OF EACH SCHOOL'S GENDER, RACIAL, AND CLASS STANDING DISTRIBUTION COMPARISON

Table 37: School One's Gender, Racial, and Class Standing Distribution Comparison

Demographic Type	School Demographic Percentage	Survey Demographic Percentage
A. Gender		
1. Male	48.7	39.2
2. Female	51.3	60.2
Chi-Square *df* = 1 Value = 5.47		
B. Race		
1. African- American	5.5	4.2
2. Hispanic/Chicano/Latino	45.7	27.1
3. Caucasian	40.4	51.8
4. Asian-American	3.4	7.8
5. Native-American	0.5	1.8
6. Other	4.5	6.0
Chi-Square *df* = 5 Value = 29.45		
C. Class Standing		
1. Freshman	27.4	17.5
2. Sophomore	27.4	22.9
3. Junior	24.2	27.1
4. Senior	20.9	32.5
Chi-Square *df* = 3 Value = 16.58		

*p< 0.05

Table 38: School Two's Gender, Racial, and Class Standing Distribution Comparison

Demographic Type	School Demographic Percentage	Survey Demographic Percentage
A. Gender		
1. Male	51.1	39.1
2. Female	48.9	60.9
Chi-Square *df* = 1 Value = 7.40		
B. Race		
1. African- American	5.2	7.0
2. Hispanic/Chicano/Latino	34.8	25.4
3. Caucasian	53.9	54.2
4. Asian-American	1.8	3.0
5. Native-American	0.2	2.1
6. Other	4.0	2.8
Chi-Square *df* = 5 Value = 18.80		
C. Class Standing		
1. Freshman	29.7	9.9
2. Sophomore	28.2	21.1

Demographic Type	School Demographic Percentage	Survey Demographic Percentage
3. Junior	23.6	1.4
4. Senior	18.5	64.1
Chi-Square *df* = 3 Value = 153.64		

*p< 0.05

Table 39: School Three's Gender, Racial, and Class Standing Distribution Comparison

Demographic Type	School Demographic Percentage	Survey Demographic Percentage
A. Gender		
1. Male	52.3	43.8
2. Female	47.7	56.3
Chi-Square *df* = 1 Value = 8.97		
B. Race		
1. African- American	15.5	16.7
2. Hispanic/Chicano/Latino	50.5	35.4
3. Caucasian	27.0	33.3
4. Asian-American	3.0	4.2
5. Native-American	0.4	0.0
6. Other	3.7	8.3
Chi-Square *df* = 5 Value = 6.10*		
C. Class Standing		
1. Freshman	27.0	2.1
2. Sophomore	25.2	22.9
3. Junior	26.4	25.0
4. Senior	21.4	50.0
Chi-Square *df* = 3 Value = 37.13		

*p< 0.05

Table 40: School Four's Gender, Racial, and Class Standing Distribution Comparison

Demographic Type	School Demographic Percentage	Survey Demographic Percentage
A. Gender		
1. Male	49.4	36.6
2. Female	50.6	62.4
Chi-Square *df* = 1 Value = 5.95		
B. Race		
1. African- American	9.9	9.9
2. Hispanic/Chicano/Latino	67.8	62.4
3. Caucasian	14.0	14.9
4. Asian-American	3.7	2.0

Demographic Type	School Demographic Percentage	Survey Demographic Percentage
5. Native-American	0.4	1.0
6. Other	4.2	7.9
Chi-Square *df* = 5 Value = 5.17*		
C. Class Standing		
1. Freshman	31.7	16.8
2. Sophomore	26.4	14.9
3. Junior	25.2	21.8
4. Senior	16.7	45.5
Chi-Square *df* = 3 Value = 58.05		

*p< 0.05

Table 41: School Five's Gender, Racial, and Class Standing Distribution Comparison

Demographic Type	School Demographic Percentage	Survey Demographic Percentage
A. Gender		
1. Male	55.5	50.0
2. Female	44.5	50.0
Chi-Square *df* = 1 Value = 0.78*		
B. Race		
1. African- American	18.5	18.2
2. Hispanic/Chicano/Latino	55.0	62.1
3. Caucasian	18.2	10.6
4. Asian-American	2.5	3.0
5. Native-American	0.4	0.0
6. Other	5.4	4.5
Chi-Square *df* = 5 Value = 3.05*		
C. Class Standing		
1. Freshman	28.3	18.2
2. Sophomore	27.1	18.2
3. Junior	24.6	22.7
4. Senior	20.0	40.9
Chi-Square *df* = 3 Value = 17.45		

*p< 0.05

Table 42: Six's Gender, Racial, and Class Standing Distribution Comparison

Demographic Type	School Demographic Percentage	Survey Demographic Percentage
A. Gender		
1. Male	51.1	34.8
2. Female	48.9	65.2

Demographic Type	School Demographic Percentage	Survey Demographic Percentage
Chi-Square *df* = 1 Value = 4.76		
B. Race		
1. African- American	3.3	4.3
2. Hispanic/Chicano/Latino	19.3	10.9
3. Caucasian	73.7	82.6
4. Asian-American	1.3	0.0
5. Native-American	0.2	0.0
6. Other	2.2	2.2
Chi-Square *df* = 5 Value = 2.99*		
C. Class Standing		
1. Freshman	27.2	0.0
2. Sophomore	27.7	34.8
3. Junior	25.3	19.6
4. Senior	19.8	45.7
Chi-Square *df* = 3 Value = 28.61		

*p< 0.05

Table 43: The School District's Gender, Racial, and Class Standing Distribution Comparison

Demographic Type	School Demographic Percentage	Survey Demographic Percentage
A. Gender		
1. Male	51.1	40.1
2. Female	48.9	59.9
Chi-Square *df* = 1 Value = 26.44		
B. Race		
1. African- American	9.6	8.8
2. Hispanic/Chicano/Latino	46.4	37.3
3. Caucasian	37.1	43.1
4. Asian-American	2.7	4.1
5. Native-American	0.1	1.3
6. Other	3.9	5.4
Chi-Square *df* = 5 Value = 32.64		
C. Class Standing		
1. Freshman	30.6	12.9
2. Sophomore	25.9	21.6
3. Junior	25.6	18.6
4. Senior	17.9	46.8
Chi-Square *df* = 3 Value = 303.67		

*p< 0.05

LIST OF REFERENCES

Akers, R.L. (1985). *Deviant behavior: A social learning approach.* (3rd ed.) Belmont CA: Wadsworth.

Amorso, D.M. & Ware, E.E. (1983). Youth's perception of police as a function of attitudes towards parents, teachers and self. *Canadian Journal of Criminology* 25, 191-199.

Ansley, L. (August 13-15, 1993) *USA Weekend*. "It just keeps getting worse."

Arbor, A. (2003). Health behavior in school-aged children, 1997-1998, United States. *World Health Organization:* Calverton, MD.

Arredondo, P.E. (2003). Child development, children's mental health and the juvenile justice system: Principles for effective decision-making. *Stanford Law and Policy Review* 14 (1), 13-28.

Atkinson, A.J. (2002). *Safe and secure: Guides to creating safer schools. Guide 5: Fostering school-law enforcement partnerships.* Portland, OR: Northwest Regional Educational Laboratory.

Babbie, E.R. (2007). The basics of social research 4th Ed. Belmont, CA: Wadsworth.

Babbie, E.R. (1990). Survey research methods 2th Ed. Belmont, CA: Wadsworth.

Babbie, E.R. (1987). The practice of social research 5th Ed. Belmont, CA: Wadsworth.

Bachman, R., Paternoster, R., & Ward, S. (1992). The rationality of sexual offending: Testing a deterrence/rational choice conception of sexual assault. *Law & Society Review*, 26, (2) 343-372

Bazemore, G., Stinchcomb, J.B., & Leip, L.A. (2004). Scared smart or bored straight? Testing deterrence logic in an evaluation of police-led truancy intervention. *Justice Quarterly,* 21(2), 269-299.

Bean, P., (2004). *Drugs and Crime* (2nd ed.). Cullompton, Devon, UK: Willan.

Binns, K. & Markow, D. (1999). *The Metropolitan Life survey of the American teacher 1999, violence in America's public schools five years later: A survey of students, teachers and law enforcement officials.* New York: Metropolitan Life Insurance Company.

Botvin, G.J., Griffin, K.W., Diaz, T., Scheier, L.M., Williams, C. & Epstein, J.A. (2000). Preventing illicit drug use in adolescents: Long-term follow-up data from a randomized control trial of a school population. *Addictive Behaviors, 25,*(5), 769-774.

Bowen, G.L., Richman, J.M., Brewster, A., & Bowen, N.K. (1998). Sense of school coherence, perceptions of danger at school, and teacher support among youth at risk of school failure. *Child and Adolescent Social Work Journal, 15,*(4), 273-286.

Briggs, B. & Blevins, J. (1999, May 2). Columbine – tragedy and recovery: A boy with many sides. *The Denver Post.* 1A, p. A18.

Britt, C.L. & Gottfredson, M.R. (2003). *Advances in criminological theory volume 12: Control theories of crime and delinquency.* New Brunswick, NJ: Transaction Publishers.

Brown, B. (2006). Understanding and assessing school police officers: A conceptual and methodological comment. *Journal of Criminal Justice 34* (6), 591-604.

Brown, B. & Benedict, W.R. (2002). Perceptions of the police. Past findings, methodological issues, conceptual issues and policy implications. *Policing: An International Journal of Police Strategies & Management,* 25, (3), 543-580.

Bureau of Justice Assistance (2005). *The history of the G.R.E.A.T. Program.* Retrieved October 23, 2005 from www.atf.treas.gov/great/.

Canady, T.R. (2001). Briefing paper: School Resource Officer. School Violence Resource Center. Retrieved February 23, 2005 from www.svrc.net.

Cao, L., Frank, J. & Cullen, F.T. (1996). Race, community context and confidence in the police. *American Journal of Police,* 15, (1), 3-22.

Carlson, R. & Blumenfield, K. (2001). Banning tobacco use by minors protects the tobacco industry. Does it protect the kids? Retrieved September 25, 2006 from http://www.njgasp.org/f6_kids.htm. Tobacco Control Policy and Legal Resource Center. Summit, NJ.

Center for the Prevention of School Violence (2004). What school resource officers do as law-related counselors and law-related education teachers. Retrieved February 26, 2005 from http://www.ncdjjdpd.org/cpsv/sro/candlre.htm.

Chyen, D., Eaton, D.K., Grunbaum, J.A., Harris, W.A., Hawkins, J., Kann, L., Kinchen, S., Lim, C., Lowry, R., McManus, T., Ross, J., Shanklin, S., & Wechsler, H., (2005). Youth risk behavior surveillance – United States, 2005, Center for Disease Control and Prevention, Surveillance Summaries June 9, 2006. MMRW 2006, 55(5).

Cliff, N. (1996). Answering ordinal questions with ordinal data using ordinal statistics. *Multivariate behavioral research 31,* (3), 331-350.

Cooper, S.C. (2003). The carrot and the stick. *Michigan Bar Review* 82, 20-24.

Coy, J.R. (2004). *Indianapolis Public School Police History.* Retrieved June 3, 2008 from http://www.police.ips.k12.in.us/IPSP+HISTORY/History+1/default.aspx.

Dallal, G.E. (2001). *The Little Handbook of Statistical Practice.* Retrieved September 25, 2006 from http://www.tufts.edu/~gdallal/LHSP.HTM.

Decker, S.H. (2000). Increasing school safety through juvenile accountability programs. *Juvenile Accountability Incentive Block Grants Program (JAIBG) Bulletin, December 2000.*

Del Carmen, A., Polk, O.E., Segal, C., & Bing III, R.L. (2000). Fear of crime on campus: Examining fear variables of CRCJ majors and nonmajors in pre- and post-serious crime environments. *Journal of Security Administration, 23,* (1), 21-47.

Devoe, J.F., Peter, K., Kaufman, P., Miller, A., Noonan, M., Snyder, T.D., & Baum, K. (2004). *Indicators of School Crime and Safety: 2004 (NCES 2005-002/NCJ 205290). U.S. Department of Education and Justice. Washington, DC: U.S. Government Printing Office.*

Eaton, D.K., Kann, L., Kinchen, S., Ross, J., Hawkins, J., Harris, .W.A., Lowry, R., McManus, T., Chyen, D., Shanklin, S., Lim, C., Grunbaum, J.A., & Wechsler, H. (2006). Youth risk behavior surveillance – United States, 2005. *Morbidity and Mortality Weekly Report, 55,* (SS-5). 1-109.

Ellickson, P.L., Dui, K, Bell, R. & McGuigan, K. (1998). Does Early Drug Use Increase the Risk of Dropping Out of High School? *Journal of Drug Issues*, 28, (2), 357-380.

Ericson, N. (2001). *Addressing the problem of juvenile bullying (FS-200127).* The U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention. Washington, D.C.

Eskridge, C.W. (2005). The state of the field of criminology. *Journal of Contemporary Criminal Justice,* 21, (4), 296-308.

Feller, B. (2006). *Bush calls for help in school shootings.* The Associated Press. Retrieved on March 21, 2008 from http://www.washingtonpost.com/wp-dyn/content/article/2006/10/10/AR2006101000496.html.

Finn, P. (2006). School resource officer programs: Finding the funding, reaping the benefits. *FBI Law Enforcement Bulletin 75*, (8), 1-7.

Finn, P. & McDevitt, J. (2005). *National Assessment of School Resource Officer Programs: Final Project Report (209273).* The National Institute of Justice. Washington, DC.

Finn, P., Townsend, M., Shively, M. & Rich, T. (2003). *A guide to developing, maintaining, and succeeding with your school resource officer program: Practices for the field for law enforcement and school administration (2003-HS-WX-K041).* U.S. Department of Justice, Office of Community Oriented Policing, Washington, DC.

Florida Criminal Law and Motor Vehicle Handbook (2004). Longwood, FL: Gould Publications, Inc.

Foglia, W.D. (1997). Perceptual deterrence and the mediating effect of internalized norms among inner-city teenagers. *Journal of Research in Crime and Delinquency* 34 (4) 414-442.

Frank, J., Smith, B.W., & Novak, K.J. (2005). Exploring the basis of citizens' attitudes towards the police. *Police Quarterly*, 8, (2), 206-228.

Freeman, J. & Watson, B. (2006). An application of Stafford and Warr's reconceptualization of deterrence to a group of recidivist drink drivers. *Accident Analysis and Prevention* 38(3):pp. 462-471.

Garcia, C.A. (2003). School safety technology in America: Current use and perceived effectiveness. *Criminal Justice Policy Review, 14* (1), 30-54.

Gassman, R., Nowicke, C.E., & Jun, M.K. (2010). Individual characteristics of methamphetamine users in relation to self-reported trouble with the police. *Journal of Alcohol and Drug Education.* 54(1) 76-92.

Girouard, C (2001). *School resource officer training program: March 2001(FS-200105).* U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention. Retrieved October 23, 2005 from http://www.ncjrs.gov.

Hawkins, S.R., Campanaro, A., Pitts, T.B., & Steiner, H. (2002). Weapons in an affluent suburban school. *Journal of School Violence 1(1),* 53-65.

Hebert, L. (2007). Building a school community partnership with school resource The Connexions Project. officers. Retrieved June 1, 2008 from http://cnx.org/content/m14649/latest/.

Hertz, C. (2003). *More that $41 million awarded to schools and communities to prevent violence among youth.* Retrieved July 4, 2005 from http://www.ed.gov.

Hindelang, M.J., Hirschi, T., & Weis, J.G. (1979). Correlates of delinquency: The illusion of discrepancy between self-report and official measures. *American Sociological Review*, 44, (6)995-1014

Hopkins, N., Hewstone, M. and Hantzi, A. (1992), Police-schools liaison and young people's image of the police: an intervention evaluation. *British Journal of Psychology*, 83, 203-20.

Hosmer, D.W. & Lemeshow, S. (2000). *Applied Logistic Regression Second Edition.* Hoboken, NJ: John Wiley & Sons, Inc.

Indianapolis Star, (November, 2004). Timeline of incidents: School violence around the world. Retrieved February 27, 2005 from http://www.indystar.com/library/factfiles/crime/school_violence/school_shootings.html

Infoplease, (April 2008). A timeline of recent worldwide school shootings. Retrieved April 7, 2008 from http://www.infoplease.com/ipa/.html. Infoplease© 2000–2007 Pearson Education, publishing as Infoplease.

Ingels, S.J., Pratt, D.J., Wilson, D., Burns, L.J., Currivan, D., Rogers, J.E., & Hubbard-Bednasz, S. (2007), *Education Longitudinal Study of 2002: Base-Year to Second Follow-up Data File Documentation (NCES 2008-347).* U.S. Department of Education. Washington, DC: National Center for Education Statistics.

Jackson, A. (2002). Police-school resource officers' and students' perception of the police and offending. *Policing*, 25 (3), 631-652.

Jesilow, P., Meyer, J., & Namazzi, N. (1995). Public attitudes toward the police. *American Journal of Police,* 14, (2), 67-88.

Johnson, I.M. (1999). The effectiveness of a school resource officer program in a southern city. *Journal of Criminal Justice, 27,* (2), 173-192.

Juvenile Justice Digest, (April, 2002). Iowa school liaison officer stops attack. 30, (2), 7-8.

Kalishman, A. (2003). *D.A.R.E. fact sheet.* Retrieved October 23, 2005 from http://www.drugpolicy.org.

Kaufman, P., Chen, X., Choy, S.P., Ruddy, S.A., Miller, A.K., Fleury, J.K., Chandler, K.A., Rand, M.R., Klaus, P., & Planty, M.G. *Indicators of School Crime and Safety, 2000.* U.S. Department of Education and Justice. NCES 2001-017/NCJ-184176. Washington, D.C.: 2000.

Keiger, D. (2002). An unnecessary force? *John Hopkins Magazine,* 54 (4).

Kennedy, M. (January, 2004). Providing safe schools. *American School and University.* Retrieved June 1, 2008 from http://asumag.com/mag/university_providing_safe_schools/.

Kennedy, M. (2001). Security: Teachers with a badge. *American School & University, 73 (6),* 36-38.

Kim, C., Lee, Y., & Park, B.U. (2001). Cook's distance in local polynomial regression. *Statistics and probability letters 54,* (2001), 33-40.

Knapp, K.C. (2001). School violence: Assessment, management, prevention. *Journal of Law and Education 30,* (3), 571-574.

Laerhoven, H., van der Zaag-Loonen, H.J., & Derkx, B.H. (2004). A comparison of likert scale and visual analogue scales response opinions in children's questionnaires. *Acta Paediatr* 93, 830-835.

Lenth, R.V. (2006). Statistical power calculations. *Journal of Animal Science,* 85, 24-29.

Long, J.S. (1997). *Regression models for categorical and limited dependent variables.* Thousand Oaks, CA: SAGE Publications Inc.

Lord, V.B., Kuhns, J.B., & Friday, P.C. (2009). Small city community policing and citizen satisfaction. *Policing,* 32, (4), 574-594.

Lurigio, A.J., Greenleaf, R.G., & Flexon, J.L. (2009). The effects of race on relationships with the police: A survey of african american and latino youths in Chicago. *Western Criminology Review* 10 (1), 29-41.

Mandrekar, J.N., Mandrekar, S.J., & Cha, S.S. (2003). Cutpoint determination methods in survival analysis using SAS. Retrieved February 21, 2011 from http://www2.sas.com/proceedings/sugi28/261-28.pdf

Matthews, S.K. & Agnew, R. (2008). Extending deterrence theory: Do delinquent peers condition the relationship between perceptions of getting caught and offending? *Journal of Research in Crime and Delinquency 45* (2), 91-118.

Maxson, C.L., Hennigan, K.M., & Sloane, D.C. (2005). "It's getting crazy out there": Can civil gang injunction change a community. *Criminology & Public Policy,* 4, (3), 577-603.

May, D.C., Fessel, S.D., & Means, S. (2004). Predictors of principals' perceptions of school resource officer effectiveness in Kentucky. *American Journal of Criminal Justice. 29,* (1), 75-96.

Mbuba, J.M. (2010). Attitudes toward the police: The significance of race and other factors among college students. *Journal of Ethnicity in Criminal Justice.* 8 (3), 201-215.

McDaniel, J. (1999, April). *School resource officers: What we know, what we think we know, what we need to know*. Paper presented at the School Safety Strategic Planning Meeting at the United States Department of Justice, Washington, DC.

McDevitt, J. & Panniello, J. (2005). National assessment of school resource officer programs: Survey of students in three large new SRO programs. United States Department of Justice. NCJRS 209270. Washington, D.C.: 2005

McNicholas, C.F. (2004). School resource officers public protection for public schools. Retrieved February 27, 2005 from http://www.ifpo.org/articlebank/school_officers.htm.

Megens, K.C., & Weerman, F.M. (2010). Attitudes, delinquency and peers: The role of social norms in attitude-behavior inconsistency. *European Journal of Criminology*, 7, (4), 299-316.

Mitchell, R.E., Florin, P., & Stevenson, J.F. (2002). Supporting community-based prevention and health promotion initiatives: Developing effective technical assistance systems. *Health Education & Behavior,* 29 (5), 620-639.

Moss, M. (2007). *The case for a school resource officer.* School Violence Resource Center, National Center for Rural Law Enforcement. Retrieved April 10, 2008 from http://www.svrc.net/SRO-ACaseforSRO.htm.

Mulqueen, C. (1999). School resource officers more than security guards. *American School & University, 71 (11),* 17-20.

Nagin, D.S. & Pogarsky, G. (2003). An experimental investigation of deterrence: Cheating, self-serving bias, and impulsivity. *Criminology, 41* (1), 167-193.

Nansel, T., Overpeck, M., Pilla, R., Ruan, J., Simons-Morton, B., & Scheidt, P. (2001). Bullying behaviors among US youth: Prevalence and association with psychosocial adjustment. *Journal of the American Medical Association, 72*, 616-419.

National Institute on Drug Abuse, U.S. Department of Health (2011), NIDA infofacts: High school and youth trends. Retrieved April 1, 2011 from http://drugabuse.gov/infofacts/hsyouthtrends.html.

National Youth Violence Prevention Resource Center, Center for Disease Control and Prevention (2007). Bullying facts and statistics. Retrieved June 2, 2008 from www.safeyouth.org.

Nihart, T., Lersch, K.M., Sellers, C.S., & Mieczkowski, T. (2005). Kids, cops, parents and teachers: Exploring juvenile attitudes toward authority figures. *Western Criminology Review.* 6 (1), 79-88.

Noonan, J.H. & Vavra, M.C. (2007). *Crimes in schools and colleges: A study of offenders and arrestees reported via national incident-based reporting system data.* United States Department of Justice, Federal Bureau of Investigation, Criminal Justice Information Services Division. Washington, D.C.: 2007.

Norusis, M. (2009). *SPSS 17.0 advanced statistical procedures companion.* Upper Saddle River, NJ: Prentice Hall.

O'Brien, C.G. (2001). SRO averts repeat of columbine. *Sheriff 53* (3), 26-28.

Olweus, D. (2001). Bullying at school: tracking the problem. *OECD Observer 225*, 24-26.

Olweus, D. (1993). *Bullying at school: What we know and what we can do.* Oxford: Blackwell Publishers.

Pallant, J. (2005). *SPSS survival manual, 2nd edition.* Maidenhead, Berkshire United Kingdom: Open University Press.

Paternoster, R., & Piquero, A. (1995). Reconceptualizing deterrence: An empirical test of personal and vicarious experiences. *Journal of Research in Crime and Delinquency, 32,* (3) 251-286.

Pestello, H. F. (1984). Deterrence: A reconceptualization. *Crime and Delinquency 30* (4), 593-609.

Peterson, K.S. (1998, June 19). 1 million school kids toting guns. *U.S.A. Today.*

Peterson, R.L. (2002). Effective Responses: School Resource Officers. The Safe and Responsive Schools Project. Retrieved July 3, 2005 from www.indiana.edu/~safeschl.

Piquero, A., & Paternoster, R. (1998). An application of Stafford and Warr's reconceptualization of deterrence to drinking and driving. *Journal of Research in Crime and Delinquency, 35,* (1) 3-39.

Piquero, A. & Rengert, G.F. (1999). Studying deterrence with active residential burglars. *Justice Quarterly,* 16, (2), 451-471.

Pogarsky, G. (2002). Identifying "deterrable" offenders: Implications for research on deterrence. *Justice Quarterly,* 19, (3), 431-452

Pogarsky, G., Kim, K., & Paternoster, R. (2005). Perceptual change in the national youth survey: Lessons for deterrence theory and offender decision making. *Justice Quarterly* 22 (1), 1-19.

Reisig, M.D. and Parks, R.B. (2000), Experience, quality of life, and neighborhood context: a hierarchical analysis of satisfaction with the police. *Justice Quarterly*, 17,(3), 607-29.

Rosenbaum, D.P. & Hanson, G.S. (1998). *Assessing the effects of school-based drug education: A six-year multi-level analysis of project D.A.R.E.*

Sampson, R.J. & Wilson, W.J. (1995). Toward a theory of race, crime, and urban inequality. In Hagan, J & Peterson, R. (ed.). *Crime and Inequality* (pp. 37-54). Stanford, CA: Stanford University Press.

Santoro, G., Massey, O.T., & Armstrong, K. (2002). *Perceptions of school safety: Year 2 of the school safety survey.* Tampa, FL: The Louis de la Parte Florida Mental Health Institute, University of South Florida. FMHI Publication #207-7. Seventh in the Series "Evaluation of the Pinellas County Safe Schools/Health Students Initiative."

Schafer, J.A., Huebner, B.M., and Bynum, T.S. (2003). Citizen perceptions of police services: Race, neighborhood context, and community policing. *Police Quarterly*, 6, (4), 440-468.

Sclove, S.L. (2001). *Notes on Likert Scales.* Retrieved March 12, 2006 from http://www.uic.edu/classes/idsc/ids270sls/likert.htm.

Shepard, E.M. (2001). *The economic costs of D.A.R.E.* Retrieved October 23, 2005 from http://www.drugpolicy.org

Sherling, K. (1998). *National association of school resource officers: Basic course manual.* Florida: NASRO, Inc.

Skogan, W.G. (2006). Asymmetry in the Impact of Encounters with Police. *Policing & Society* 16, (2), 99-126.

Small, M. & Tetrick, K.D. (2001). School violence: An overview. *Juvenile Justice Journal 8,* (1), 3-12.

Smith, F. (2002). *Research methods in pharmacy practice.* Chicago, IL: Pharmaceutical Press.

Snyder, H.N. & Sickmund, M. (1999). *Juvenile offenders and victims: 1999 national report.* Washington, DC: Office of Juvenile Justice and Delinquency Prevention.

Spatz, C. (2001). *Basic statistics: Tales of distribution.* Belmont, CA: Wadsworth/Thomson Learning.

Spohn, C., & Holleran, D. (2002). The effect of imprisonment on recidivism rates of felony offenders: A focus on drug offenders. *Criminology*, 40, 329-358.

Sprague, J., & Walker, H. (2002). *Safe and secure: Guides to creating safer schools. Guide 1: Creating schoolwide prevention and intervention strategies.* Portland, OR: Northwest Regional Educational Laboratory.

Stafford, M.C. & Warr, M. (1993). A reconceptualization of general and specific deterrence. *Journal of Research in Crime and Delinquency 30* (2), 123-135.

Steinberg, S. & Monahan, K.C., (2007). Age differences in resistance to peer influence. *Developmental Psychology.* 43 (6), 1531-1543.

Strandberg, K. (1999). Intervention: Facing school violence. *Alternatives to incarceration.* 5 (6), 16-20.

Tabachnick, B.G. & Fidell, L.S. (2001, p. 117). *Using Multivariate Statistics, Fourth Edition*. Needham Heights, MA: Allyn & Bacon.

Thomas, C.W. & Bishop, D.M. (1984). The effect of formal and informal sanctions on delinquency: A longitudinal comparison of labeling and deterrence theories. *The Journal of Criminal Law and Criminology*, 75, (4), 1222-1245.

Thornberry, T.P. & Krohn, M.D. (2000). The self-report method for measuring delinquency and crime. *Criminal Justice 2000, Volume 4: Measurement and Analysis of Crime and Justice.* NCJ 182411. Washington, DC.

Thornberry, T.P., Lizotte, A.J., Krohn, M.D., Farnworth, M., & Jang, S.J., (1994). Delinquent peers, beliefs, and delinquent behavior: A longitudinal test of interaction theory. *Criminology.* 32 (1), 47-83.

Townley, A. & Martinez, K. (1995). Using technology to create safer schools. *NASSP Bulletin, 79,* 61-69.

Trump, K.S. (2008). School Associated Violent Deaths and School Shootings. Retrieved May 4, 2008 from http://www.schoolsecurity.org/trends/school_violence.html.

Trump, K.S. (2002). 2002 NASRO school resource officer survey. Retrieved February 25, 2005 from www.nasro.org.

UCLA: Academic Technology Services, Statistical Consulting Group (2009). SPSS Data Analysis Examples Ordinal Logistic Regression. Retrieved May 24, 2009 from http://www.ats.ucla.edu/stat/SPSS/dae/ologit.htm.

Uniform Crime Reporting Handbook. (2004). Clarksburg, WV: Federal Bureau of Investigation.

U.S. Census Bureau (2000). DP-1. Profile of General Demographic Characteristics: 2000. Retrieved February 27, 2005 from http://www.census.gov.

U.S. Department of Education, National Center for Education Statistics. *Crime and Safety in America's Public Schools: Selected findings from the school survey on crime and safety,* NCES 2004-370. Project Officer Kathryn Chandler. Washington, DC: 2004.

U.S. Department of Education. Office of Safe and Drug Free Schools. *Safe Schools Healthy Students Initiative, 1865-0004.* Washington, DC: 2004.

U.S. Department of Justice, Office of Community Oriented Policing Services. *COPS in schools. The COPS commitment to school safety,* e09042494. Washington, DC: 2004.

U.S. Department of Justice, Office of Community Oriented Policing Services. *COPS in schools (CIS).* Retrieved November 30, 2008 from http://www.cops.usdoj.gov.

U.S. Department of Justice, Office of Community Oriented Policing Services. *COPS More (making officer redeployment effective).* Retrieved July 4, 2005 from http://www.cops.usdoj.gov.

U.S. News and World Report (2008). Timeline of School Shootings. Retrieved April 7, 2008 from http://www.usnews.com/article/news/mational/2008/02/15/timeline-of-schoolshootings.html

Vardalis, J.J. & Kakar, S. (2000). Crime and the High School Environment. *Journal of Security Administration, 23* (2), 37-49.

Vogel, B.L. & Meeker, J.W. (2001). Perceptions of crime seriousness in eight African-American communities: The influence of individual, environmental, and crime-based factors. *Justice Quarterly,* 18, (2), 301-321.

Vossekuil, B., Fein, R., Reddy, M., Borum, R., & Modzeleski, W. (2002). The Final Report and Findings of the Safe School Initiative: Implications for the Prevention of School Attacks in the United States. U.S. Department of Education, Office of Elementary and Secondary Education, Safe and Drug-Free Schools Program and U.S. Secret Service, National Threat Assessment Center, Washington, D.C.

Walsh, A. & Hemmens, C. (2008). *Introduction to Criminology: A Text/Reader*. Thousand Oaks, CA: Sage Publications, Inc.

West, M.L. & Fries, J.M. (1995). Campus-based police/Probation teams—making schools safer. *Corrections Today, 57,* 144-148.

Wilcox, P. & Clayton, R.R. (2001). A multilevel analysis of school-based weapon possession. *Justice Quarterly,* 18, (3), 509-541.

Williams, K.R. & Hawkins, R. (1986). Perceptual Research on general deterrence: A critical review. *Law & Society Review*, 20, (4), 545-572.

Woolf, H.B. (Ed.). (1979). *Webster's New Collegiate Dictionary*. Springfield MA: G. & C. Merriam Company.

Yoon, J. (2004). Predicting teachers' interventions in students' bullying. *Education and Treatment of Children*, 27, (1) 37-45.

Zimring, F.E. & Hawkins, G.J. (1973). *Deterrence: The legal threat in crime control.* Chicago, IL: The University of Chicago Press.