

ABSTRACT

Title of thesis: THE ROLES OF POLICE OFFICERS IN
SCHOOLS: EFFECTS ON THE RECORDING
AND REPORTING OF CRIME

Deanna N. Devlin, Master of Arts, 2015

Directed By: Professor Denise Gottfredson
Department of Criminology and Criminal Justice

Deploying police officers, known as School Resource Officers (SROs), in schools has become a popular strategy to prevent and reduce school crime. The existing literature mostly examines the *presence* of SROs and their effects on crime outcomes. This study sought to examine whether differing SRO role approaches influence school crime recording/reporting differently. The study used a constructed longitudinal sample ($n = 475$) from the School Survey on Crime and Safety (SSOCS) for the years 2004, 2006, and 2008. The findings supported the hypothesis that police presence would be associated with more recording and reporting of crimes. Further, and contrary to hypotheses, schools with SROs who provided mentoring or teaching in addition to law enforcement functions, but not schools with SROs who provided only law enforcement, were more likely to record and report crime than schools without police. Recommendations for future research and policy implications are discussed.

THE ROLES OF POLICE OFFICERS IN SCHOOLS: EFFECTS ON THE
RECORDING AND REPORTING OF CRIME

By

Deanna N. Devlin

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Advisory Committee:

Professor Denise Gottfredson, Chair
Associate Professor Brian Johnson
Professor Jean McGloin

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Chapter 1: Introduction

It is not uncommon to hear about incidents of school violence in the news. Media coverage of these events induces fear of crime and raises concern for improvements in school safety. During the 1980s fear was high as youth crime was on the rise, and this fear continued into the 1990s due in large part to the tragic shooting at Columbine High School in 1999 (Addington 2009; Martinez 2009). National media attention covering these events and fear of violence in schools led to a demand for school violence prevention, although statistics indicate that crime in schools has actually declined since 1995 (Robers et al., 2013).

Deploying police officers, known as school resource officers (SROs), in schools was a common response. SROs mainly serve a law enforcement purpose, although the roles that they serve may vary. Brown (2006) defines an SRO as “a hybrid of educational, correctional and law enforcement official” (p. 593). While the officer typically performs routine law enforcement tasks, he or she may also perform additional roles such as teacher and/or mentor (Brown, 2006; Finn & McDevitt, 2005; Finn et al., 2005; James & McCallion, 2013; Thomas et al., 2013).

Little is known about the consequences of placing police in schools: the practice might be beneficial if it reduces school violence, or it might be detrimental if, for example, it results in more youths being processed through the juvenile or criminal justice systems (Brown 2006; Addington 2009; Jennings et al., 2011; Crews et al., 2013). The current literature on SROs regarding their effectiveness is mixed and most of the studies lack rigor. Also, most studies only focus on the presence of these officers in schools rather than what they do there.

Officers who serve multiple roles might contribute more to schools than those who only play a law enforcement role because in addition to enforcing the law and deterring school crime, they can also educate students on various topics and serve as mentors or counselors to at-risk students (Thomas et al., 2013). The differing SRO role approaches may affect crime and the reporting of crimes to law enforcement in different ways. The limited research on SROs yielding mixed results may be because most of the studies lack sufficient methodological rigor (Na & Gottfredson, 2011). The results may also be mixed, however, because SRO role approaches may vary across studies, and these roles are not taken into consideration in any study of SRO outcomes.

Chapter 2: Literature Review

School Crime Trends and Factors Associated with School Crime

Youth crime had been on the rise in the 1980s and early 1990s and tragic incidents of school violence resulted in concerns about school safety (Addington, 2009; James & McCallion, 2013). The perceptions of continual rising juvenile crime rates as well as highly publicized incidents generated demands for improvements in school safety. Addington (2009) suggested that the school shooting at Columbine High School was the main factor responsible for the fear that ultimately prompted the nation to substantially increase SRO use. Addington (2009) conducted a quasiexperiment to determine whether fear had been altered after the Columbine event occurred. The levels of fear for students and parents were assessed, and the findings indicated that fear increased for both students and parents after the shooting (Addington, 2009).

Although youth crime was perceived to be on the rise, this perception did not match reality (Beger, 2002; Brady et al., 2007; Crews et al., 2013). Contrary to popular belief, the 1990s experienced a decrease in violent school crime (Jennings et al., 2011) and principals noted that the most common issues in schools were less serious behaviors such as tardiness and students missing class (Heaviside et al., 1998). Research indicates that more serious crimes in schools actually decreased (Dinkes et al., 2009; Robers et al., 2013). School shootings spurred fear that student deaths in schools were becoming more common, but the total number of homicides for youth ages 5 to 18 was at its lowest point in the 2010-2011 school year since the 1992-1993 school year (Robers et al., 2013). Data from the NCVS indicated that non-fatal victimizations at school also decreased from 4,281,200

incidents in 1992 to 1,364,900 incidents in 2012 with the trend generally decreasing for each year in between (Robers et al., 2013).

While the evidence indicates that school crime has been decreasing, “it is clear that school crime has not been eliminated, and moreover, schools with high crime rates still exist” (O’Neill & McGloin, 2007, p. 511). Various factors including the community context in which the schools are located, are associated with school crime (Gottfredson & Gottfredson, 1985; Sheldon & Epstein, 2002; Gottfredson et al., 2005; Jennings et al., 2011). Community crime rates often parallel school crime rates (Jennings et al., 2011). Jennings et al. (2011) noted that the risk of being a victim of violent crime in high schools of neighborhoods with high crime rates is two times greater than the risk in other neighborhoods. Sheldon & Epstein (2002) suggested that “the neighborhoods in which families and schools are located may affect student behavior” (p. 8). Gottfredson & Gottfredson (1985) examined more than 600 secondary schools in the nation and found that aspects of the community such as poverty, disorganization, location, crime, and total school enrollment were all statistically related to victimization rates of teachers in schools. Similarly, Gottfredson et al. (2005) surveyed teachers and students in 254 public secondary schools and found that there was more disorder in schools that were located in areas of residential crowding and poverty with a higher percentage of minority students.

Other school factors are also associated with school crime. The demographics of the students such as age, race, gender, and socioeconomic status have found to be associated with crime and disorder in schools (Jennings et al., 2011). Cook et al. (2010) suggested that middle schools are more likely to experience higher violent crime rates compared to elementary or high schools. Some studies have also been conducted to assess

whether the size of the school is related to the amount of crime that the school experiences (Cook et al., 2010). The results indicate that there is not a relationship between school size and violent crime rate (Cook et al., 2010).

Additional school characteristics such as the administration structure and school climate are related to crime as well. The administration structure consists of how school rules are made and enforced (Cook et al., 2010). Cook et al. (2010) notes that schools in which students participate in forming the rules and policies experience less crime and problem behavior. School rules and policies resonate more with the students when they have contributed to establishing them (Cook et al., 2010). Also, students' perceptions of the rules and how they are enforced are also important. Gottfredson et al. (2005) found that schools have lower levels of delinquency and victimization when students perceive the rules to be clear and fairly enforced.

School climate is also related to the level of school crime. Important aspects of school climate include perceptions of behavioral norms for behavior and communal social organization (Cook et al., 2010). The culture in a school sets the tone for which behaviors are acceptable, and when students perceive misconduct to be the norm, they are more likely to engage in delinquent activities (Cook et al., 2010). Efforts to clarify behavior norms have been effective in reducing problems such as delinquency and other forms of misconduct (Gottfredson et al., 2002). Further, communal social organization is also an important factor. Schools have communal organization when students have strong relationships with the teachers, and there is a cohesive environment with support and commitment (Cook et al., 2010). Delinquency is less of a problem in schools that are communally organized (Payne et al., 2003). In sum, school crime is affected by several

factors. In order to reduce crime in schools, it would appear reasonable to target these factors known to be related to school crime.

School Crime Prevention Strategies

Jennings et al. (2011) stated that “although school shootings and violent crime within schools are relatively rare events, the impact they have on society cannot be overstated” (p. 110-111). Schools implement a variety of strategies aimed at reducing crime and increasing school safety (Gottfredson & Gottfredson, 2002). These strategies include security procedures as well as exclusionary practices which remove high risk youths from schools. Commonly used security procedures include installing equipment such as security cameras and metal detectors in addition to checking lockers and requiring students to wear uniforms and ID badges (Cook et al., 2010). One of the most popular security procedures is to hire police officers. The use of SROs, which combines law enforcement and additional “softer” approaches, is often coupled with zero tolerance policies and exclusionary practices (Beger, 2002; Gregory & Cornell, 2009; Crews et al., 2013).

Gregory & Cornell (2009) define zero tolerance as “a highly structured disciplinary policy that permits little flexibility in outcome by imposing severe sanctions for even minor violations of a school rule (p. 107). Na & Gottfredson (2011) discuss the origins of police in schools and relate them to the trend of criminalizing behaviors in schools through the use of zero tolerance policies. One of the most prominent zero tolerance policies was the 1994 Gun Free Schools Act which mandated that a student be expelled from school for at least one year for possessing a weapon on school property (Brady et al., 2007). The purpose of implementing zero tolerance policies such as the Gun Free Schools Act was similar to

the purpose of hiring SROs in that schools wanted to maximize the use of security to prevent and reduce school crime (James & McCallion, 2013). Beger (2002) states that zero tolerance policies in schools allow student behaviors that were traditionally handled with informal disciplinary actions to now be “more likely to result in police arrest and referral to juvenile or adult court” (p. 123). Due to the collaboration of SROs and zero tolerance policies in schools, student misconduct is more likely to be punished more harshly. Zero tolerance policies and the use of SROs are not equivalent, but SROs are often used as a means of enforcing zero tolerance policies. However, schools can have zero tolerance policies without having SROs and vice versa. Similarly to the growing popularity of zero tolerance policies, SROs became a very widely used strategy.

The Increasing Use of Police

Hiring police officers in schools became possible through the use of several grants and funding from the federal government (Thompson & Alvarez, 2013). The year following the tragic incident at Columbine High School, President Clinton signed off on a \$60 million grant to hire SROs (Addington, 2009). In addition, the Safe Schools Act of 1994 provided money for school security measures including hiring SROs (Brady et al., 2007). Funding for SROs has continued to be called for as President Obama requested \$150 million for the year 2014 to proceed in using security measures, establishing relationships between schools and police departments, hiring SROs and training staff in schools to use security measures (Crews et al., 2013; James & McCallion, 2013).

The increases in funding have allowed the number of SROs placed in schools to skyrocket (Beger, 2002; Brown, 2006; Cook et al., 2010; James & McCallion, 2013). Beginning in the late 1990s, the numbers of police officers in schools grew substantially

(Brown, 2006; Cook et al., 2010). During the 1996-1997 school year, 22% of principals from a nationally representative sample reported using a police officer or a law enforcement representative (Kaufman et al., 1999). Data from the 2009-2010 school year indicate an increase in SRO use as 43% of principals reported the use of security in their schools (Robers et al., 2013). Students also indicated an increase in SRO use in the schools they attended. The percentages of students ages 12-18 who reported the use of police or security in their schools increased from 54% in 1999 to 70% in 2011 (Dinkes et al., 2009; Robers et al., 2013). The National Association of School Resource Officers (NASRO) was established in 1991 and there were more than 15,000 members associated with it by the year 2006 (Brown, 2006). Clearly, the number of SROs in schools across the nation has increased over the last two decades. With SROs becoming such a popular school safety measure, it became a topic of evaluation as well. The following section discusses the existing literature on SROs.

Prior Research on Effectiveness of SROs

The goal of evaluating the strategy of using SROs is to determine if they are effective in reducing crime and keeping schools safe. Currently, the literature regarding whether SROs accomplish these goals is mixed. Some studies indicate that SROs have a significant impact on crime (Johnson, 1999; Theriot, 2009; Jennings et al., 2011; Theriot, 2013) whereas others suggest that they do not reduce crime at all (Jackson, 2002; Brady et al., 2007; Na & Gottfredson, 2011). These inconsistencies may be due to most of the literature on SROs lacking the rigor needed to support conclusions about the effectiveness of an intervention. In studying the effectiveness of SROs, the key methodological question

is whether the study was able to eliminate plausible alternative explanations for the outcomes of interest. The current literature fails to do so, leading to mixed results.

Ultimately, studies aim to show that SROs reduce crime and improve school safety. However, in order to establish causality, three key features are required (Shadish et al., 2002): There must be evidence that the presumed cause comes before the effect temporally, that the presumed cause and effect are correlated, and that all other plausible explanations for the effect are ruled out (Shadish et al., 2002). In terms of studying the effectiveness of SROs, it is crucial to rule out threats to internal validity and ensure that there are no other explanations for the observed association with changes in the outcome other than the SROs. Shadish et al. (2002) notes that in order to support conclusions about effectiveness there needs to be a “source of counterfactual inference and understanding how this source differs from the treatment condition” (p. 6). In the studies of SROs, the true counterfactual condition would be the outcome in the same schools at the same time had they not had SROs. As this cannot be observed directly, researchers can attempt to estimate what the counterfactual would have been through comparing against control conditions. For example, earlier time points can be used in schools before SROs were implemented to examine how these schools differ after the SROs have been put in place. In this instance, there would need to be a large number of observations prior to and after the implementation of SROs. Another type of control condition could be obtained from comparison schools which were randomly assigned to not use SROs. Schools with and without SROs can be examined to distinguish differences in the outcomes of interest. Using this type of design, all important pre-existing differences between these schools that might

influence the outcomes must be measured and controlled, unless such differences have been minimized through the design of the study.

Of the few studies examining SRO effectiveness, almost all of them are of low quality and lack internal validity. Several studies did not include a comparison group with non-SRO schools and also did not have any pre-test measures from before the SRO was implemented (Johnson, 1999; May et al., 2004; Theriot, 2013). Several studies did include comparison groups, but they lacked pre-test measures, and these control schools were not equivalent to the treatment schools (Brady et al., 2007; Jennings et al., 2011). Jackson (2002) attempted to use pre- and post-tests but used different samples for the pre- and post-tests. This hindered the ability to connect the pre- and post-test measures. Theriot (2009) used pre- and post-test measures for non-equivalent groups but only used a small number of observations. Further, the SRO schools differed from the non-SRO schools in that the comparison condition used police who were not school-oriented officers (Theriot, 2009). All of these designs lack the ability to determine whether SROs increase or reduce school crime and safety.

Na & Gottfredson (2011) conducted one of the more rigorous evaluations of SROs to date. By merging three school years' of data from the SSOCs, Na & Gottfredson (2011) created a longitudinal sample including 475 schools and tested to see if schools with and without SROs were significantly different, and since they were different the authors controlled for selection. By using each school as its own comparison and using a longitudinal sample, Na & Gottfredson (2011) examined whether the increased use of SROs had an effect on school crime. The results demonstrated that the SROs did not decrease crime, but that more crime was reported in schools with increased police presence

(Na & Gottfredson, 2011). Although this study is more credible than those previously mentioned, it is still limited in that the final sample was not nationally representative and the possibly confounding effects of additional security measures were not separated from the effects of the SROs (Na & Gottfredson, 2011). Additionally, neither this study nor any of the others examined the effect of SRO roles on crime outcomes. The following sections describe the roles of SROs and possible mechanisms through which the roles may affect crime and the reporting of crimes to law enforcement.

The Roles of SROs

The National Association of School Resource Officers describes the three ideal roles of SROs as the SRO triad which entails the roles of law enforcer, counselor/mentor, and teacher (Beger, 2002; Jackson, 2002; Brown, 2006; May & Higgins, 2011; James & McCallion, 2013; Thomas et al., 2013). While NASRO advocates for this model, the roles of the officers and their duties really depend on various factors such as the needs of the schools and the desires of the school administrators (Finn & McDevitt, 2005; Finn et al., 2005). There is no exact definition or set of rules that specifically outlines the roles and responsibilities of SROs. Therefore, it is difficult to adequately describe exactly what SROs do. However, schools can be classified as law enforcement only SRO schools or mixed approach schools meaning that the schools have SROs serving only the law enforcement function or the officers serve the law enforcement role in addition to mentoring and/or teaching.

Brown (2006) describes the roles that SROs serve as manifest and latent functions. Manifest functions refer to the roles that one would most commonly associate with the job (Brown, 2006). For example, the manifest function of the SRO is the law enforcement

function and to reduce crime (Brown, 2006). This function involves performing routine law enforcement tasks such as patrolling school grounds, conducting investigations of school crime, performing sweeps for drugs and weapons, and making arrests (Beger, 2002; Thomas et al., 2013). Johnson (1999) reports that SROs help to conduct other security measures as well such as checking students' IDs and making sure that the doors of the school building are locked. Law enforcement only schools require that the SROs only perform tasks such as these.

Mixed approach schools differ from law enforcement only schools in that the SROs may serve multiple roles in addition to the law enforcement role. These additional roles are what Brown (2006) refers to as the latent functions of the SROs because they are duties which are not often recognized as traditional roles of officers. In terms of teaching, SROs can spend time lecturing students in classrooms on various topics such as law, investigations, conflict resolution, violence prevention, constitutional rights, and the role of police officers (Thomas et al., 2013). The counseling function allows the officers to serve as a resource for students to come to for advice, and in turn, the officer may identify at-risk students who may need intervention. SROs can serve as mentors through individual counseling sessions, coaching sports teams, or just having informal interactions in the hallways with students (Travis & Coon, 2005).

As previously mentioned, there is very limited research on SROs and even fewer studies examining SRO roles. Only a few studies examine the amount of time devoted to the role approaches and factors that may predict the level and frequency of the roles served in schools (Finn et al., 2005; Finn & McDevitt, 2005; Travis & Coon, 2005). Finn et al. (2005) examined nineteen sites which included several schools with SRO programs in each

site. These sites were examined as case studies in which detailed information was collected about the amount of time spent on SRO roles (Finn et al., 2005). Finn et al. (2005) noted that the amount of time dedicated to the role approach is dependent on various factors such as the amount of crime in the school, the desires of the school administration and the level of experience of the SRO.

Finn & McDevitt (2005) also looked at these same nineteen sites and examined the amount of time spent on these roles in newly formed SRO program sites as well as those that had already been established. There was no consistency in the amount of time spent on the different roles in relation to whether the site was new or established and large or small (Finn & McDevitt, 2005). Finn & McDevitt (2005) reported the mean percentages of the amount of time spent on each role for nine of the nineteen sites. These schools were all mixed approach schools as they varied in time spent on each function, but had the SROs serving all three components of the SRO triad. The average percent of time spent on law enforcement activities ranged from 10% to 65% (Finn et al., 2005). Mean percentages for the amount of time spent on mentoring ranged from 20% to 60% (Finn et al., 2005). Finally, the average percent of time spent on teaching ranged from 10% to 40% (Finn et al., 2005). These case studies indicated that there is not a set guideline for schools to follow in terms of the proportion of time that officers dedicate to each of the roles (Finn et al., 2005; Finn & McDevitt, 2005).

Travis & Coon (2005) assessed the SRO roles approaches in schools by surveying school principals. The findings revealed information about the roles of SROs in schools such as the level and frequency with which officers performed these activities as well as the predictors of those roles in schools (Travis & Coon, 2005). The results indicated that

overall officers spent the most time serving the law enforcer role (Travis & Coon, 2005). However, by breaking down the three functions into their individual activities, it can be seen that a substantial percentage of schools have officers performing activities for the additional roles as well. For example, all of the schools use at least one law enforcement activity including making arrests, investigating leads about crimes, writing police reports, and patrolling school grounds (Travis & Coon, 2005).¹ In terms of mentoring, 17.7% of schools had law enforcement advise PAL teams, 61.7% provided individual guidance to students, 46.2% help students with court involvement, and 52% referred students to outside resources (Travis & Coon, 2005). Several schools had law enforcement teaching different classes as well. Law enforcement taught D.A.R.E. in 51.6% of schools, alcohol awareness in 30.4%, law-related education classes in 20.3% and conflict resolution in 23.65% (Travis & Coon, 2005). These are just a few of the many activities performed by SROs in schools, but it is clear that there is variation in the activities that SROs engage in (Travis & Coon, 2005).

In addition, predictors of the level and frequency of SRO roles in schools were also examined (Travis & Coon, 2005). Factors such as school size, region, crime, and school level were assessed to determine whether they predicted the types of roles that officers engaged in (Travis & Coon, 2005). These factors were all related to some of the activities that are associated with the different SRO roles (Travis & Coon, 2005). While this study does give some insight into the roles of the SROs, the findings must be interpreted with caution (Travis & Coon, 2005). The schools in which principals filled out the surveys significantly differed from the larger population of schools on numerous factors such as

¹ Percentages are calculated from Table 4.7 in Travis & Coon's 2005 report.

proportion of white students, socioeconomic status, school level, region and location (Travis & Coon, 2005). In addition, there was a much lower response rate than expected for schools that would appear to be more problematic (Travis & Coons, 2005). Therefore, one must interpret these results knowing that they are not representative (Travis & Coon, 2005). While this study is one of the first to look beyond the presence of SROs and examine the role approaches, it does not address the relationship between the roles of the SROs and the effectiveness of reducing crime in schools.

The literature indicates that what SROs do varies considerably from school to school and that there are various factors which predict the amount of time devoted to each role. The different role approaches of SROs could influence their effectiveness in reducing crime in schools, but no existing research explores this possibility. The following section introduces mechanisms to provide a rationale for why different role approaches may produce different outcomes.

Mechanisms through Which Differing SRO Roles May Affect Crime/Crimes Reported to Law Enforcement

Law Enforcement Only Approaches

There are several mechanisms through which the law enforcement only approach may affect school crime. First, the mechanisms through which this approach may decrease school crime are discussed. Many advocate for the use of SROs because the security and surveillance that they provide can serve as deterrent mechanisms to decrease crime and victimization (Johnson, 1999; Jackson, 2002; Na & Gottfredson, 2011). Constant surveillance and enhanced safety procedures may deter potential offenders and reduce crime by increasing the certainty of getting caught (Johnson, 1999; Jackson, 2002; Theriot, 2009; Crews et al., 2013). Further, the law enforcement approach may also decrease crime

by allowing SROs to respond quickly to incidents occurring on school grounds and to intervene before the scene gets out of hand and subsequent crimes occur (Johnson, 1999; Crews et al., 2013). SROs implementing their law enforcement duties may also decrease crime because they can serve as more proactive measures in preventing crime (Johnson, 1999; Crews et al., 2013). These mechanisms together might be labeled “deterrence.”

Another possible mechanism for achieving this outcome is by increasing the clarity of school rules and the consistency of rule enforcement. If students see officers actively performing law enforcement functions, then they may perceive the school rules to be consistently enforced and it may become clear as to which behaviors will not be tolerated. Schools in which students perceive the officers to be consistently regulating school behaviors may experience less crime.

Although these mechanisms may decrease crime, there are also several mechanisms through which the law enforcement role might increase school crime. The law enforcement role may increase student perceptions that the school environment is unsafe, and may increase fear (Wacquant, 2001; Beger, 2002; Addington, 2009). In an environment in which youth are scared or feel that they are in danger, juveniles may be more likely to resort to crime or violence as a means of self-protection. This also relates to the school climate. Students in these schools may perceive that crime is the normative which may result in more crime.

In addition to influencing perceptions of school safety, the law enforcement approach may also affect attitudes towards the police in ways that increase school crime. Many are concerned that SROs do not receive sufficient training to work with youths, but rather only receive training in traditional law enforcement approaches (Brown, 2006).

Therefore, these officers may be more likely to use aggressive tactics which may generate negative attitudes undermining the legitimacy of the police (Hinds, 2009). When the police are viewed as legitimate, people are more likely to comply and obey police authority (Tyler & Fagan, 2008). If SROs do not gain legitimacy from juveniles, the youths may be less likely to comply with them and crime may increase. Further, the law enforcement only role may affect the communal organization of the school. If officers are using aggressive tactics and only performing the law enforcement role, then it may seem as though the officers are just there to get the students in trouble rather than supporting them and forming bonds which may lead to an increase in crime.

Further, perceptions of police and legitimacy are affected if aggressive tactics disproportionately affect certain demographic groups. Fratello et al. (2013) interviewed juveniles between the ages of 13 to 25 in New York City on their interactions with police and found that minority juveniles felt that they were given more harsh treatment due to their race. Brunson (2007) interviewed a sample of male juveniles ages 13 to 19 in St. Louis and found that officers were more likely to use force with African American males. This may contribute to more positive attitudes towards the police among whites than among minority juveniles (Hinds, 2007). Whites tend to have the most favorable views of the police whereas African Americans have the least positive attitudes, and Hispanics fall in between (Taylor et al., 2001; Hinds, 2007; Brick et al., 2009). Aggressive behavior in the law enforcement role targeting certain demographic groups is likely to affect juveniles' attitudes and undermine legitimacy which may contribute to an increase in crime. Moreover, aggressive tactics used differently among demographic groups is likely to

impact perceptions of the consistency of rule enforcement, an important predictor of school crime.

Additional mechanisms through which the law enforcement role may increase crime are the shift of discretion from the school administrators to SROs as well as zero tolerance policies. The increasing use of SROs in schools has contributed to shifting disciplinary power from administrators and teachers to officers (Beger, 2002). Theriot (2009) states that when SROs are used in schools, they are more likely to handle discipline situations rather than allowing a teacher or school administrator to do so which may cause teachers to become out of touch with students. Additionally, the implementation of SROs has come in conjunction with the use of zero tolerance policies as officers now have the discretion over disciplinary incidents and are now facilitating the use of harsher discipline strategies (Cook et al., 2010; James & McCallion, 2013). According to James & McCallion (2013), the logic behind the use of zero tolerance strategies is that students will be deterred from committing crimes because there is more certainty in getting caught and the punishment will be more severe. However, the research does not support these strategies as effective in reducing crime (Skiba & Peterson, 1999).

Instead of decreasing school crime, zero tolerance policies and the shift of disciplinary power may serve as mechanisms in which SROs increase school crime. Disciplinary actions such as suspension, expulsion, and arrest are likely to lead the youth further into crime rather than preventing it (Skiba & Peterson, 1999; Brown, 2006; Theriot, 2009). Although zero tolerance policies can exist in schools without SROs, it is often the case that SROs may be hired as a way to facilitate the use of zero tolerance practices. The main responsibility of the SRO is to reduce crime and maintain order, and therefore they

may be more likely to choose to react harshly to offenses when zero tolerance policies are in place which may result in problematic youth being removed from school. In turn, zero tolerance policies and the shift in discretion are mechanisms through which the law enforcement SRO role may increase crime because youths who are removed from school are much less likely to proceed to the next grade, which sets them back academically, weakens social bonds with their peers, and increases the risk of dropping out (Skiba & Peterson, 1999; Brown, 2006; Theriot, 2009; Cook et al., 2010). Negative outcomes such as dropping out of school, the inability to catch up on course material, and removal from school peers and positive role models are all likely to make juveniles more inclined to commit crime (Skiba & Peterson, 1999; Brown, 2006; Theriot, 2009; Cook et al., 2010). Thomas et al. (2013) states that disciplinary actions implemented through zero tolerance policies “can negatively impact a child’s life trajectory, hindering educational success and raising the risk of adult criminality” (p. 3). The law enforcement only role is not equivalent to the use of zero tolerance but it may be likely that SROs serving the law enforcement only approach are more likely to increase crime through zero tolerance policies because they do not have the training or access to alternative resources that the mixed approach officers may have. Theoretically, these mechanisms increasing crime are supported as well through the theories of Lemert (1951) and Sherman (1993).

Labeling theory supports the notion that zero tolerance policies and the shift of discretion to SROs enabling zero tolerance policies may lead to an increase in crime. Lemert’s (1951) labeling theory proposes that there is a chain reaction where individuals are labeled for committing an offense and in turn this leads to further deviance (Lemert, 1951). This chain reaction begins with an initial offense called primary deviance which

results in a social penalty as the public labeling process begins (Lemert, 1951). When a juvenile commits an offense and a zero tolerance policy harshly punishes the individual, the person may become publicly labeled and stigmatized (Lemert, 1951). As a result, juveniles who experience this may begin to feel isolated and remove themselves from normal activities, view themselves as the label they are given, and/or begin to support or associate with deviant peers (Lemert, 1951). These factors then result in secondary deviance which occurs after an individual has internalized and accepted the label (Lemert, 1951). Therefore, the use of these harsher policies can result in stigmatizing juveniles which isolates them and can lead them to associate with delinquent others eventually resulting in further crime.

Additionally, Sherman's defiance theory indicates that sanctions may affect future criminality based on the perceived justice of the sanction as well as the bonds of the person receiving the sanction (Sherman, 1993). Experiencing harsher sanctions for minor infractions through zero tolerance policies may result in students perceiving this to be unfair and react defiantly (Brown, 2006). In addition, Sherman (1993) adds to social bond theory suggesting that when people have strong bonds to society, more severe sanctions will be more likely to deter them. However, people who have weak bonds may be more likely to view these harsher punishments as unfair and act defiantly (Sherman, 1993). It is most likely the case that youths who are weakly bonded to society are the ones most likely to engage in delinquency in schools and therefore are more likely to view the sanctioning process as unfair (Sherman, 1993; Brown, 2006). As a result, instead of harsher consequences being used as a means to deter youth in schools, it may actually cause the opposite effect. Therefore, the theories of Lemert (1951) and Sherman (1993) support the

notion that zero tolerance policies and the shift of discretion to SROs may increase crime. The law enforcement role is the approach most likely to lead SROs to use harsher consequences as a means of punishment.

In addition to increasing crime levels, the law enforcement only approach might also increase the proportion of school crimes that are reported to the police. Law enforcement only officers may view their role as being tough on crime because their main responsibility is to maintain order and safety. Therefore, these SROs may be more likely to choose to report crimes to law enforcement whereas school administrators may have been more likely to have handled the situation in house. In conjunction with the shift in discretion, zero tolerance policies may also be a mechanism through which law enforcement only SROs increase crimes reported to law enforcement. These policies enable SROs to crack down on minor offenses or student misconduct that otherwise would have received less severe punishments but are now being reported to the police as a harsher consequence.

As previously mentioned, the law enforcement approach may increase or decrease crimes, but it could also serve to increase *detected* crimes even if it does not influence the level of actual crimes in schools. Law enforcement only SROs regularly spend time on tasks such as patrolling school grounds, conducting investigations, performing sweeps, etc. so they are likely to detect more crimes than officers who spend their time on additional roles as well.

In a similar vein, the United States Supreme Court has recently allowed the use of searches in schools as long as the officers have reasonable suspicion (Beger, 2002; Brown, 2006; Addington, 2009; Cook et al., 2010). In the highly publicized case of *New Jersey v.*

T. L. O., the Supreme Court ruled that a search warrant is not needed to conduct searches on students in schools (Brown, 2006). In some schools, searches are now being conducted for non-criminal items such as possessing a cell phone (Brown, 2006). The allowance of random searches in schools as well as lower standards for conducting searches is likely to lead to more detected crimes in schools. That is, there could be an increase in the number of detected crimes independent of whether the true number of crimes is actually increasing. This may be particularly true for law enforcement only SROs who spend all of their time on traditional law enforcement tasks.

Mixed Approaches

There are several mechanisms through which the mixed SRO role may decrease crime, including changing perceptions of school safety and police, enhancing informal interactions between students and the SROs, and providing access to additional resources. Advocates of SROs promote the use of police in schools because they may reduce fear and improve perceptions of safety (Crews et al., 2013). Students may feel more connected to the environment and may feel safe if they know the SRO on a deeper level than just as a law enforcement figure in the school. Instead of resorting to violence or crime as a self-protective measure if they are fearful, juveniles in these schools may trust the SRO to handle situations. The students may also feel less fearful depending on the school climate. Mixed approach officers may increase communal social organization by forming stronger relationships with the students through their additional roles which may foster an environment of trust and support. As a result, the students may have stronger bonds with the officers and adults in the school, which may lead to less crime.

While perceptions of school safety may serve as a mechanism through which the mixed approach decreases crime, perceptions of the police may do so as well. Jennings et al. (2011) suggested that having police officers in schools creates a higher sense of respect for police officers and more positive attitudes among youth. If juveniles only experience the police in situations where they are in trouble, then they may view the police negatively. However, juveniles may have more positive attitudes of the police if they are serving additional functions such as counseling them, listening to their problems, or teaching them about interesting topics. SROs are often able to serve as a companion when the relationship between the youths and the school guidance counselors is poor (Finn et al., 2005). This may be crucial because guidance counselors may be the primary source that students seek for solutions to problems. If that relationship is lacking, then it is important for someone else to step in. If the SRO is able to become the person that students rely on to talk about their problems, then the juveniles may view them more positively, which may make them more likely to comply and less likely to commit crime. Additionally, students may now have an outlet for emotional frustration that otherwise may manifest as crime.

Juveniles may also view the police more positively if they are in class with the officers and are being taught law-related concepts and knowledge because this may increase perceptions of legitimacy and decrease crime. Fratello et al. (2013) interviewed youth about their experiences being stopped by the police and found that juveniles often did not feel that the stops were justified because the police never gave a reason for why the stop was being conducted. Classes taught by the SROs could provide youths with knowledge of the law so they can better understand the reasoning for legal action. Paternoster et al (1997) explains that high quality decisions are important to gaining

legitimacy. If SROs have the chance to educate youths on why certain procedures are conducted, then the juveniles may be more likely to view them as legitimate which would in turn decrease crime. Further, a discussion on how and why officers enforce the rules may cause the juveniles to perceive the rules to be fairly and consistently enforced, as well as establishing what the norms for the school environment are. These factors may then lead to a decrease in crime.

Additionally, legitimacy is gained when the police give citizens a chance to tell their side of the story and when they are polite and respectful (Paternoster et al., 1997). An informal classroom environment humanizes the officer, allowing them to show the youth that they can be polite and respectful, and it also provides an opportunity for the youth to ask questions. These components might increase the legitimacy of SROs which will then result in juveniles being more likely to comply with the officers and less likely to engage in crime.

Mixed approach SROs may also generate more positive attitudes if the SROs have had more training in dealing with adolescents. As previously mentioned, SROs in the law enforcement only approach may use aggressive tactics if they were not trained in how to appropriately deal with adolescents. Serving additional roles may require SROs to have more training in order to engage in various mentoring or teaching activities. Therefore, mixed approach SROs may understand better ways of communicating and dealing with juveniles that may result in more positive attitudes towards them than those who only serve the law enforcement only role, and these positive attitudes may contribute to a decrease in crime.

Another mechanism through which the mixed approach SROs may decrease crime is through enhanced informal interactions. A good rapport and a trusting relationship between youths and SROs may be formed when officers serve the mixed approach because the role allows them to interact with juveniles in informal settings such as coaching a team for the Police Athletic League (PAL), coaching sports teams, or engaging in community outreach programs with youths (Travis & Coon, 2005). For example, the Youth Community Alliance (YCA) is a type of program in which mixed role SROs may participate which engages police in informal interactions with students and allows them to attend school functions to become more involved in the youths' lives (Hinds, 2009). By establishing a more companion-like relationship, juveniles may feel more comfortable with the police and may be more willing to comply with their authority leading them to engage in less crime.

Enhanced informal interactions may also serve as a mechanism through which mixed approach SROs decrease crimes reported to law enforcement. If officers are spending time getting to know the students on a more informal level, they may feel more inclined to give them alternative solutions other than arresting them or reporting the crime to the police. SROs who serve additional roles may learn more about the students through interactions such as counseling sessions where they may come to understand why a youth is troubled which may make them less likely to report the crime to law enforcement. In addition, SROs who teach students may be establishing a positive relationship with them through informal interactions in the classroom and may not want to damage that relationship by using harsher disciplinary actions such as reporting the crime to law enforcement.

The final mechanism through which the mixed role approach may decrease crime is the access that these SROs have to other services. Officers who engage in multiple roles may have more connections with outside agencies to which youth might be referred, or may be able to provide a wider variety of services to youths than they otherwise would have received. These services may range from help lines to specific treatment and rehabilitation services. Law enforcement only officers may not be aware of external agencies dedicated to helping adolescents with various problems that mixed role SROs may be aware of and use as a resource. By providing youth who need them with services, crime may be decreased. However, this has the potential to backfire if officers only use their discretion to give alternative options to certain students and not others because this will affect perceptions of the clarity and fairness of the enforcement of rules.

Mixed approach SROs may also influence detected crimes rather than or in addition to actual school crime. Detected school crime may increase through the mechanisms of perceptions and informal interactions. This increase in detection may result if juveniles come to view the police as legitimate or if they trust and become comfortable with the officers. If juveniles feel that the officers are legitimate and trust them, then they may be more likely to report a crime that they otherwise may not have reported. This would lead to more crime being recorded although the actual crime in schools may not have increased.

In addition to the mixed approach affecting crimes recorded by the schools, there are also mechanisms through which the mixed approach might affect crimes reported to law enforcement. The reporting of crimes to the police may be decreased through the mechanism of access to other services because mixed approach SROs may have a wide variety of alternatives to use rather than reporting the juvenile to law enforcement. For

example, Schlosser (2014) found that when an SRO had caught two youths committing an offense, their consequence was to go through a counseling session with the SRO as opposed to being arrested and then possibly further sentenced to a harsher disposition. The SRO instead discussed the offenses with the juveniles and counseled them about decision making to prevent this from occurring again in the future (Schlosser, 2014). This is an example of having alternative options to use rather than reporting the crimes to law enforcement. Schools with mixed approach SROs may have the training to conduct these counseling sessions or connections with additional agencies to use rather than reporting the crimes which may decrease crimes reported to law enforcement.

Further, informal interactions may also serve as a mechanism through which mixed approach SROs decrease crimes reported to law enforcement. If officers are spending time and putting forth effort to get to know the students on a more informal level, then they may feel more inclined to give them alternative solutions other than arresting them or reporting the crime to law enforcement. SROs who serve additional roles may learn more about the students through interactions such as counseling sessions where they may come to understand why a youth is troubled. This may make them more inclined to apply an alternative option rather than reporting the crime. In addition, SROs using the mixed approach who are teaching students may be establishing a positive relationship with them through informal interactions in the classroom and may not want to damage that relationship by using harsher disciplinary actions such as reporting the crime to law enforcement.

SRO Role Effects by Crime Type

SRO role effects may vary by crime type. Na & Gottfredson (2011) found that as schools increase their use of police, they record more crimes involving weapon and drugs (thus facilitating zero tolerance for these crimes), and they report a higher percentage of property crimes to law enforcement. Effects on other forms of crime were not found. It is also possible that specific SRO roles might influence crime recording and reporting differently for different crimes. The moderating effects of the use of mixed approaches are more likely to be observed for less serious crimes because all law enforcement officers would be expected to implement zero tolerance for more serious crimes.

Kalven and Zeisel's (1966) liberation hypothesis can be used to justify the rationale as to why there may be differential effects on the recording and reporting of different crimes by SRO role. The liberation hypothesis was originally intended to describe the juror decision making process in the sentencing literature. Specifically, the hypothesis suggests that discretion is enhanced when the offense in question is a lower level crime (Kalven & Zeisel, 1966). In regards to more severe crimes, "jurors are less likely to be liberated to follow their own sentiments and are restricted to following the law in making their decision" (Guevara et al., 2011).

This hypothesis can be applied to SRO decision making regarding crimes as well. SROs are likely to have more restrictions regarding the extent of discretion for serious violent crimes because the severity of the offense makes it one that cannot go unnoticed or unpunished. Discretion may also be limited for crimes that are often targeted by zero tolerance policies. On the contrary, there may be more discretion in terms of less serious offenses. Further, discretion may vary by SRO role approach. For example, mixed

approach SROs may use their discretion to provide juveniles with a counseling session for getting into a fight since it is considered to be a lower level offense, whereas law enforcement only SROs may not have the training or resources to provide an alternative option to use their discretion in this way.

As a result, the best approach to examining SRO role effects by crime type may be to examine three crime type categories: non-serious violent, property, and serious violent/weapon/drug crimes. Non-serious violent and property crimes can be considered as lower level offenses and more discretion may be used for these crimes, but they should be examined separately as Na & Gottfredson (2011) found that police presence was associated with a reporting effect for property crimes, but not non-serious violent crimes. Weapon and drug crimes can be grouped with serious violent crimes in terms of the amount of discretion in recording and reporting these crimes because they are often the target of zero tolerance policies (Na & Gottfredson, 2011). Although the severity of serious violent crimes may differ from the severity of some weapon and drug crimes, the focus on these offenses for zero tolerance purposes may limit the discretion of the SROs regardless of the role approach used.

Chapter 3: Data and Methods

The Present Study

The purpose of this study was to examine whether SRO role approaches influence the recording and reporting of school crimes to law enforcement differently. It is critical to answer these questions due to the mixed evidence on the effectiveness of SROs and the lack of research addressing what SROs actually do in schools. As previously discussed, there are several mechanisms through which the SRO role approaches may affect crime, but these mechanisms unfortunately cannot be tested with the current dataset. Therefore, the best available approach toward examining these relationships was to assess the effects of the roles on the outcomes while controlling for pre-existing differences. The analyses used schools with no police presence as a control condition to compare against to estimate the magnitude of the effect of SRO presence on the outcomes of interest, and the magnitude of the SRO effect was assessed for schools that use law enforcement only and mixed approaches. Negative binomial regressions were used to assess the recording of crimes in schools. Further, logistic regressions were used to measure the reporting of crimes to law enforcement as this outcome was dichotomized to contrast a low reporting group to a high reporting group. The following hypotheses were tested:

H1: SRO presence will be associated with a higher rate of recorded non-serious and property crime.

H2: The association between police presence and higher rates of recorded non-serious and property crimes will be strongest in schools in which SROs use the law enforcement only approach.

H3: SRO presence will be associated with a higher likelihood of being in the high reporting group for non-serious and property crimes reported to the police.

H4: The association between police presence and a higher likelihood of being in the high reporting group for non-serious and property crimes will be strongest in schools which use the law enforcement only approach.

H5: SRO presence will be associated with a higher rate of serious violent, weapon, and drug crimes recorded.

H6: The association between police presence and higher rates of serious violent, weapon and drug crimes will be the same for SRO schools regardless of which role approach is used.

H7: SRO presence will be associated with a higher likelihood of being in the high reporting group for serious violent, weapon, and drug crimes reported to law enforcement.

H8: The association between police presence and a higher likelihood of being in the high reporting group for serious violent, weapon and drug crimes will be the same for SRO schools regardless of which role approach is used.

Data

The data for this study originate from the School Survey on Crime and Safety (SSOCS). The SSOCS is funded by the US Department of Education and is one of the most commonly used sources for primary information on crime incidents, policies, and programs used for school safety (Ruddy et al., 2010). Every two years US schools are randomly sampled and school administrators are asked to report the number of each crime type that has occurred in their schools for that given school year as well as the number of incidents reported to the police (Ruddy et al., 2010). The sampling frame consists of all the schools in the National Center for Education Statistics (NCES) Common Core Data Public Elementary/Secondary School Universe data file which includes a list of all national public schools (Ruddy et al., 2010). The schools are stratified by instructional level, type of locale, and enrollment size (Ruddy et al., 2010).² Additionally, middle and high schools are over-sampled.³

² The stratifications included four types of instructional level (elementary, middle, high and combined), four types of locale (city, urban fringe, town, and rural) and four enrollment sizes (less than 300 students, 300-499 students, 500-599 students, and 1,000 or more). Schools were stratified on these variables because research indicates that they are related to crime in schools (Ruddy et al. 2010).

³ If sampled proportionally, there would be more primary schools than middle or high schools. Since crime is a more frequent event in middle and high schools, these schools were oversampled (Ruddy et al., 2010).

For this study, data were compiled from the SSOCS for three consecutive school years (2003-2004, 2005-2006, and 2007-2008). Although the surveys relied on principals to actively respond in order to receive the data, the weighted response rates for each of the three years (77, 81, and 77% respectively) were sufficient (Na & Gottfredson, 2011). Each of these three data sets were designed cross-sectionally. However, Na & Gottfredson (2011) merged these three school years of data to construct a longitudinal sample. Due to random sampling, several schools appeared in more than one of the data sets. The merging of the three data sets allowed for 475 schools to be assessed longitudinally (Na & Gottfredson, 2011). These 475 schools appeared in both 2004 and 2006, 2006 and 2008, or 2004 and 2008.⁴ Therefore, the effects of the various roles of SROs in schools were assessed from time one to time two. For example, if a school appeared in 2004 and 2006, then 2004 was considered time one and 2006 was considered time two. This allowed for the relationships to be examined by controlling for pre-existing differences among schools with different models of SRO usage.

The created longitudinal sample differs from the individual cross-sectional samples in a few ways. The cross-sectional samples are nationally representative of public schools in the US. However, the longitudinal sample was created by merging the three unweighted cross-sectional samples which resulted in certain types of schools being oversampled (Na & Gottfredson, 2011). For instance, the longitudinal sample includes more schools that are secondary, large, and not located in rural areas (Na & Gottfredson, 2011). Additionally, the longitudinal sample includes schools with higher levels of the outcome variables of

⁴ There were 13 schools that appeared in all three years, and these schools were included in the 2006 and 2008 pair to assess the most recent changes.

crime recording and reporting excluding non-serious violence (Na & Gottfredson, 2011). Na & Gottfredson (2011) noted that this was expected because large, urban, and secondary schools were over-represented in this sample and these types of schools were more inclined to have higher levels of crime and more likely to use formal processing. Therefore, it was concluded that although the cross-sectional samples are nationally representative, the longitudinal sample is not.

Measures

Dependent Variables

The two outcomes assessed were crimes and the reporting of crimes to law enforcement. Both dependent variables were measured at time two. Crime was measured by examining the number of crimes that the school recorded. Crimes reported to law enforcement were measured as a percentage. In addition, these outcomes were examined by three crime type categories as per the differential effects found in previous research (Na & Gottfredson, 2011). These categories consisted of non-serious violent crimes, property crimes, and serious-violent/weapon/drug crimes. Non-serious violent crimes consisted of physical attacks, fights, or threats of physical attacks without a weapon, and property crimes included theft and vandalism (Na & Gottfredson, 2011). Serious violent crimes included “rape, sexual battery other than rape, robbery with or without a weapon, physical attack or fight with a weapon, and threat of physical attack with a weapon” (Na & Gottfredson, 2011, p. 627). Finally weapon and drug crimes consisted of “possession of a firearm or explosive device; possession of a knife or sharp object; and distribution, possession or use of illegal drugs or alcohol” (Na & Gottfredson, 2011, p. 627). Serious-violent, weapon and drug crimes were grouped together because it was not expected that

there would a difference in the recording or reporting of these crimes by SRO model due to their severity and their likelihood of being treated as zero tolerance crimes, regardless of SRO role.

Table 1 displays the descriptive statistics for the dependent variables. Non-serious crimes had the highest average number of crimes recorded in schools and serious violent, weapon and drug crimes had the lowest with the averages being 36.91 (S.D. = 58.74) and 11.59 (S.D. = 15.02) crimes respectively. Table 1 also presents the summary statistics for the percentages of crimes reported to law enforcement.⁵ Due to the mostly bi-modal distributions of these crime type categories (e.g. schools tend to report all or very few of the crimes to law enforcement), these variables were dichotomized at the median.⁶

Independent Variables

The primary predictors in this study were the roles of SROs in schools. This study examined schools which used the law enforcement only approach and the mixed approach. It also used schools in which no police were stationed as the control condition against which SRO effects were measured. In the SSOCS, school administrators were surveyed about whether SROs were stationed in their schools as well as the various functions that SROs served in their schools for that particular academic year. The SSOCS for all three years included questions asking school administrators if SROs in their schools served certain roles (Tonsager et al., 2010). Specifically, after school administrators were asked

⁵ The number of observations in Table 1 for crimes reported to law enforcement vary because some schools did not experience those crimes and therefore could not report them to law enforcement.

⁶ It was not possible to dichotomize the variable for serious violent/weapon/drug crimes at the median because more than half of the cases reported 100% of these crimes and this resulted in assigning very high values (e.g. 96%) to 0 while values of 100% were assigned to 1. Different approaches to dichotomizing this variable were attempted such as splitting at the value of 50% and splitting at the value of 70%. Dichotomizing this variable at the value of 70% was the most appropriate and was therefore dichotomized at this value. Generally, these different ways of treating crimes reported did not alter the results, but the important instances are discussed in the text.

whether they had SROs they were then asked “Did these sworn law enforcement officers, security guards, or security personnel participate in the following activities at your school?” (Tonsager et al., 2010). These survey questions were used to construct the independent variables.

Two SSOCS questions were used to construct a measure of the law enforcement role. Principals were asked if the SRO engaged in security enforcement and patrol as well as maintain school discipline (Tonsager et al., 2010). If the principal reported that the SRO engaged in either of those two activities, then the schools were considered to have the law enforcement function. The mixed approach was also captured through questions which asked principals if SROs mentor students and teach a law-related education course/train students (e.g. drug-related education, criminal law, or crime prevention courses) (Tonsager et al., 2010). If the principal indicated that the SRO served either of the law enforcement functions (security enforcement or maintaining school discipline) but neither of the additional roles, then it was coded as “1” indicating that it used the law enforcement only approach (0 = otherwise). A second dummy variable for mixed approach schools was created. Schools were coded “1” on this second variable if principals reported that SROs were used for the teaching and/or mentoring function. When both of these dummy variables were entered into a regression equation, the omitted category (that is, the schools that are coded “0” for both dummies) represented the control condition, no police.

The SRO role approaches of the schools at time two were used as the independent variables. The roles at time two were used rather than time one because if the roles were only assessed at time one, then the independent variable would not capture the role approach the school was using at the time that the dependent variable was measured. Table

2 displays the summary statistics for these roles. The majority of schools (62.1%) used the mixed SRO approach while 14.9% of schools used the law enforcement only approach and 22.9% of schools did not use police.

Although the role approaches at time two as the independent variables are preferable to time one, it still may not be ideal. Measuring the SRO roles at time two is an issue because the independent variable is measured concurrently with the dependent variable making it difficult to establish temporal ordering. However, using the roles at time two is justifiable because SROs are often deployed to schools at the beginning of the academic year, while the SSOCS survey is administered at the end of the school year. This means that any crimes recorded or reported to law enforcement are likely to have occurred after the SRO was placed in the school.

As a sensitivity check, a more conservative test was also conducted which included independent variables constructed using both time one and time two. Schools which used the same role approach at both time points were included in this analysis. Table 3 shows the distribution of roles at time one and time two. This separate analysis examined the 346 schools which used the same role approach at time one and time two excluding the 129 schools that switched approaches. Table 4 presents the summary statistics for the 346 schools examined in the separate analysis indicating that 69.4% of schools used the mixed approach, 5.8% of schools used the law enforcement only approach, and 24.9% of schools did not use police.

Control Variables

Several variables were used as controls to increase confidence in the results not being spurious regarding any relationships found between SRO roles and school crime as

well as crimes reported to law enforcement. These variables were chosen as controls due to the possible relationships that they may have with the independent and dependent variables. First, the time one measure of the dependent variable in each equation is controlled. As discussed previously, several factors are associated with school crime including community context, location, and neighborhood crime rates (Gottfredson & Gottfredson, 1985; Gottfredson et al., 2005; Jennings et al., 2011). These factors may also affect the functions of SROs. For example, schools in areas with high crime rates may be more likely to have SROs serving only the law enforcement function because the school administrators may be more focused on monitoring the crime levels in the schools and less likely to be concerned with mentoring or teaching students. Community context variables included as controls were school location and crime level in the area in which the school is located. The types of location (urban fringe, town, rural and city) were also each coded as dummy variables.

Variables measuring student and school characteristics were included as controls as well. The demographics of the students were measured by the percentage of male students as well as a measure of socioeconomic status. Originally, the percentage of students eligible for free lunch and percentage of students belonging to a racial or minority group were going to be included separately as controls. However, this study encountered the same issue identified by Na & Gottfredson (2011) in that these variables were too highly correlated to be included as two separate variables. Therefore, the same modeling decision was made to create a low socio-economic status index by averaging these two variables (Na & Gottfredson, 2011, p. 628). Various additional school characteristics were controlled for as well including average daily attendance percentage, student/teacher ratio,

total enrollment, and school level. Each school level (elementary, middle, secondary)⁷ was coded as a dummy variable and included as a control.

Additional variables that may be associated with SRO roles and the outcomes were also controlled for. Variables measuring police presence were included such as the number of full-time and part-time SROs. If the officers are only in the schools part-time, then they may be less likely to teach or mentor students but rather serve as a law enforcer just to maintain order for the limited time that they are present in the school. The outcome variables of interest may be affected because if the officers are not present for the full school day, then they may be less of a deterrent and have fewer opportunities to report crimes to the police. Controls measuring whether the schools had prevention curriculums and/or student counseling were also included. If the schools had these programs as policies, then it may be less likely that SROs are responsible for these functions in schools because the students are already separately being exposed to that. The outcomes may be affected because if students are being taught through prevention curriculum or assisted through individual counseling, then they may be less likely to commit crimes resulting in fewer opportunities to report crimes to police. Finally, variables for additional security measures were included as well to control for confounding effects. These variables included policies requiring students to pass through metal detectors, random metal detector checks, random dog sniffs, the use of clear book bags/banning book bags, security cameras, and requiring students to wear photo ID. All control variables were measured at time one. Table 5 displays the descriptive statistics for all of the control variables.

⁷ Following Skinner & Chapman (1999), secondary schools also include combined schools because these schools must contain at least 9th grade.

Analytic Plan

Schools that were in at least two of the merged school years were used (2004 and 2006 OR 2006 and 2008 OR 2004 and 2008). The relationships were assessed from the first school year that the school appears in (time one) to the second year that the school appears in (time two). In order to assess the relationship between SRO roles and the outcomes of interest, it was first important to investigate which types of schools used each role approach. For instance, schools with certain characteristics may be more likely to use the law enforcement role instead of the mixed role approach or vice versa. There may also be pre-existing differences between schools in which SROs serve certain roles as opposed to schools that do not use SROs at all. Therefore, a difference in means test was conducted for the continuous control variables at time one to determine if there was a statistically significant difference for the controls according to SRO role. To test for significant differences by SRO role for the dummy variables, logistic regressions were used. The significant variables from those analyses were then included as controls in regression analyses.

Due to the nature of the dependent variables, different methodological approaches were used. A comparison of the means and standard deviations indicated that the number of crimes are right skewed. To formally test for overdispersion, the negative binomial regression was run to examine the likelihood ratio test with the null hypothesis that alpha is equivalent to zero. The null hypothesis was rejected, concluding that there was overdispersion and that negative binomial was the appropriate model to use because it is less sensitive to overdispersion than other models such as Poisson (Cameron & Trivedi, 1998). Although this model allows for the examination of count variables, it was best to

assess the rate for each dependent variable rather than the raw count of crimes in order to control for the number of students enrolled in the school. Osgood (2000) suggests that including the natural log of the population as a control in the negative binomial model is equivalent to using the crime rate per capita and the reference for this variable is one. The outcome variables for crimes reported to law enforcement were analyzed using logistic regressions, as these are binary outcomes.

In total, fourteen models were conducted. The first two models assessed the effects of police presence on the outcomes of interest using a dummy variable constructed from the two SRO role approaches. Then, six regressions used negative binomial (one for each of the crime type categories examined, using two different measurements of the independent variables) to examine the relationship with SRO roles and crimes recorded. That is, three of these six regressions looked at the role of the SROs at time two and the other three examined the SRO roles measured in the alternative way previously discussed. Further, six regressions then used logit to assess the relationship between roles and crimes reported to police. Each regression contained the two dummy independent variables as well as the controls. The coefficients were then examined to determine whether the hypotheses were supported. To interpret the regression coefficients for the negative binomial regression, the log transformation must be accounted for (Osgood, 2000). Osgood (2000) notes that “an increase of x in an explanatory variable will multiply the fitted mean crime rate by the $\exp(bx)$ ” (p. 39). Therefore, the coefficients for the mixed approach and law enforcement only approach were multiplied by one (indicating that the dummy was coded as “1”) and then exponentiated. For the logit regressions, the odds ratios were compared to test the hypotheses. Coefficients greater than one indicate that schools which used those

approaches had higher crime rates than schools that did not use police and coefficients less than one indicate the opposite. Recall that schools with the law enforcement only approach were expected to experience higher levels of recorded and reported non-serious violent and property crimes (relative to the control schools) than the mixed approach schools. Further, it was expected that the coefficients for the SRO roles would be the same for the more serious crimes. To compare effects for the law enforcement only schools and the mixed approach schools, a t-test was run to test the null hypothesis that the coefficient on law enforcement is equal to the coefficient on mixed. When examining the less serious crimes, a rejection of the null supports the hypotheses that the difference in the effect of SROs differs significantly between the two roles. For the more serious crimes, failing to reject the null supports the hypothesis that the effect of SROs is not significantly different between the roles.

Chapter 4: Results

Tables 6 and 7 present the analyses determining which variables should be included in further analyses to control for pre-existing differences in the schools by SRO role. Any of the variables with a significant difference for at least one comparison was included as a control variable in the subsequent regressions. The means of the continuous variables were compared in Table 6 by SRO role approach. Schools with law enforcement only SROs and schools with mixed approach SROs recorded more crimes than those without police for all three crime types. Schools with mixed approach SROs reported all three crime types more than schools without police. On the contrary, schools with law enforcement only SROs only reported more non-serious crimes to law enforcement than non-SRO schools. More crimes were also reported to law enforcement in schools where SROs served the law enforcement only role compared to mixed approach schools for all three crime types. Schools with mixed approach SROs had more part-time SROs than schools without police, and there were more full-time SROs in schools with either role compared to schools without police. Further, schools with law enforcement only officers had more full and part time SROs than mixed approach schools. Additionally, schools with law enforcement only SROs were of lower socioeconomic status than schools without police, and schools with police of either role approach were larger than those without.

Table 7 displays the percentages of schools using the categorical control variables by SRO role approach. Similarly to the continuous variables, any categorical variable with at least one significant difference in role approaches was included as a control in further analyses. A larger percentage of schools without police had prevention curriculum than schools with law enforcement only SROs, and more schools had prevention curriculum

with law enforcement only officers than mixed approach officers. Law enforcement only and mixed approach schools had more random metal detector checks than schools without police. Further, 18.31% of law enforcement only schools had random metal detector checks compared to 9.83% of mixed approach SRO schools. A larger percentage of mixed approach schools had random dog sniffs than schools without police and schools with law enforcement only SROs. Additionally, more schools had security cameras and required students to have IDs for law enforcement only schools and mixed approach schools compared to those without police. With respect to the crime level in the area the school was located in, 82.57% of no police schools were in low crime areas compared to 69.01% of law enforcement only schools in low crime areas. A larger percentage of law enforcement only schools and mixed approach schools were in city locations compared to schools without police, and a smaller percentage of mixed approach schools were in rural areas compared to having no police. The majority of no police schools were elementary schools, and there were fewer mixed approach SROs in middle schools compared to middle schools without police. Further, 56.34% of law enforcement only schools and 64.07% of mixed approach schools were secondary compared to the 28.44% of no police.

Tables 8 and 9 present analyses assessing the relationships between police presence, regardless of SRO role, and crimes recorded and reported. For crimes recorded, schools with police had a 48% higher rate of non-serious violent crimes, 70% higher rate of property crimes, and 70% higher rate of serious/weapon/drug crimes than schools without SROs. Schools of lower socioeconomic status were associated with higher rates of recorded crimes for all three crime types, whereas larger schools were associated with lower rates of recorded crimes for all three crime types. Schools with random metal

detector checks were associated with a 49% higher rate of recorded non-serious violent crimes, and schools in rural locations had lower rates of all three crime types than other locations. In terms of the elementary, middle and secondary schools, the higher the school level⁸ the higher the rates of recorded property and serious violent/weapon/drug crimes, but the lower the rates of recorded non-serious violent crimes.

Results for crimes reported to law enforcement are displayed in Table 9. As previously described, crimes reported to law enforcement were dichotomized at different points for different crime types, but they always contrast lower reporting to higher reporting. In terms of police presence, schools with police were 2.36 times more likely to be in the high reporting group for non-serious violent crimes. Schools with higher percentages of crimes reported to law enforcement at time one were more likely to be in the high reporting group for all three crime types. In addition, the odds of being in the high reporting group were 1.79 times greater for schools with random dog sniffs than those without.

Tables 10 and 11 show results broken down by SRO role. Schools in which SROs used a mixed approach recorded more crimes than schools with no police presence. Specifically, schools with the mixed approach had a 51% higher rate of non-serious violent crimes, 68% higher rate of property crimes, and 45% higher rate of serious violent/weapon/drug crimes than schools without SROs. The relationship between law enforcement only schools and crimes recorded was in the expected direction for all outcomes but reached significance only for property crimes. Specially, schools with SROs

⁸ The ordinal variable for school level was used in the analyses because there was no variability in the dependent variable for elementary schools which would omit all elementary schools from the analyses.

serving the law enforcement only approach had a 75% higher rate of property crimes than schools without police. Schools with the law enforcement only approach had a higher rate of property crimes in comparison to schools without police. However, there were no statistically significant differences between the coefficients for law enforcement only and mixed approaches for crimes recorded in comparison to having no police. The relationships between the control variables and crimes recorded were similar for SRO roles compared to police presence. However in the analysis assessing SRO roles, schools with random dog sniffs and higher rates of recorded crime at time one⁹ were associated with higher rates of serious violent/weapon/drug crimes.

In assessing the relationships between SRO roles and crimes reported to police, the law enforcement only approach was not significantly related to the reporting of any of the crime types in comparison to schools without SROs. The odds of being in the high reporting group for non-serious violent crimes were 2.58 times greater for schools that used a mixed approach than those with no police presence. The results also indicated that the odds of being in the high reporting group for property crimes were 2.33 times greater for mixed approach schools than schools without SROs. The differences between the coefficients for the law enforcement only and mixed approaches compared to no police only reached significance for property crimes.¹⁰

⁹ Crime (t1) is the counterpart of the dependent variable for each model. Only the time one counterpart was included because the other time one crime measures were highly correlated with one another which would produce multicollinearity in the model. For example, when examining the outcome non-serious violent crime, only non-serious violent crime at time one was included as a control and the time one measures for property and serious-violent/weapon/drug crimes were excluded as controls because all three of these variables in the model produced multicollinearity.

¹⁰ As a sensitivity check, the variables for crimes reported were measured in different ways to assess any differences in the results. Using the continuous variable with OLS and dichotomizing the variables at different cut points did not change the results. The only difference in results appeared when serious/weapon/drug crimes reported was dichotomized at the value of 50% as the mixed role became

Tables 12 and 13 report the models from the sensitivity analyses conducted to determine if the results would differ based on how the SRO role approaches were measured. The associations with the control variables were similar to those reported in the main analyses with some slight differences. The sensitivity analyses also supported the same conclusions regarding the relationships between SRO roles and the outcomes of interest. That is, the relationships between law enforcement only police and crimes recorded/reported compared to no police were not statistically significant with the exception of recording property crimes. On the contrary, the relationships between the mixed approach and crimes recorded/reported compared to no police were significant. Specifically, schools with mixed approach SROs experienced higher crime rates and were more likely to report crimes to law enforcement than schools without police. In terms of comparing the law enforcement only and mixed approaches, there was only a significant difference between the roles for reporting property crimes to law enforcement.

The hypothesized relationships were only partly supported. It was hypothesized that the rate of recorded non-serious violent and property crimes would be higher for schools with police than those without and that this relationship would be stronger for law enforcement only schools than mixed approach schools. As expected, police presence was associated with higher rates of recording these crimes. The magnitude of the mixed approach coefficients was larger than the law enforcement only approach for these crime types in comparison to no police schools, but the latter did not reach statistical significance.

significant and the difference between the mixed and law enforcement only roles became significant. However, the results did not substantively change as the mixed approach schools still reported more crimes than law enforcement only schools.

Further, the results indicated that the differences between the role approach coefficients were not statistically significant.

It was also hypothesized that SRO presence would be associated with a higher likelihood of reporting more non-serious violent and property crimes to law enforcement, and this association would be strongest in schools which use the law enforcement only approach. This hypothesis was supported in that SRO presence was associated with a higher likelihood of reporting more of these crimes to police. However, the mixed coefficients were larger in magnitude than the law enforcement only coefficients for both crime types and the law enforcement only coefficient for property crimes was in the opposite direction. The only significant difference between the law enforcement and mixed approach coefficients was for property crimes reported to police. Therefore, this hypothesis is only partly supported because the relationship was stronger for mixed approach schools than law enforcement only schools.

The hypotheses regarding SRO roles and serious violent/weapon/drug crimes recorded and reported to police were supported. SRO presence was associated with a higher rate of recording this crime type and there was not a significant difference between SRO role types in recording these crimes. Similarly, police presence was associated with a higher likelihood of reporting these crimes to law enforcement, but the effect was the same for SRO schools regardless of which role approach was used.

Chapter 5: Discussion and Recommendations

Conclusions

The present study adds to the existing literature on SROs by assessing the effects of different role approaches on the recording and reporting of crimes compared to schools with no police. Contrary to popular belief that SROs will enhance school safety, the findings from this study supported the conclusion that the presence of police is associated with more recording and reporting of crimes. Further, schools with mixed approach SROs were more likely to record and report crimes than schools without police. The relationship between law enforcement only SROs and crimes recorded was in the expected direction but only reached significance for property crimes. The odds of being in the high reporting group were higher for property and non-serious violent crimes for mixed approach schools compared to no police schools. The only differential effect for mixed approach schools compared to law enforcement only schools was for property crimes reported to police. However, this finding was contradictory to the hypothesized relationship because crimes reported were higher for mixed approach schools than law enforcement only schools. In terms of serious violent/weapon/drug crimes, the hypotheses were supported in that police presence was associated with more recording and reporting of these crimes, but there were no differences regarding role approach.

It was hypothesized that SRO presence would increase all types of crimes recorded and reported because of the detection mechanism. Law enforcement activities such as conducting investigations and patrolling school grounds made it more likely that officers would detect more crimes and subsequently report more as well. It was also hypothesized that officers using the mixed approach would be more likely to establish positive

relationships with youths and enhance informal interactions resulting in students feeling more comfortable reporting crimes to them. Further, it was expected that associations would be stronger for law enforcement schools than mixed approach schools because the officers in law enforcement only schools may affect student perceptions of the schools and police in negative ways that may increase crime (Addington, 2009; Brown, 2002; Wacquant, 2001; Hinds, 2009). It was thought that these officers may increase crime through using aggressive tactics undermining their legitimacy (Hinds, 2009), disproportionately affecting certain groups (Fratello et al., 2013), and using zero tolerance policies. The reporting of crimes was also expected to be higher for law enforcement only schools due to zero tolerance policies because officers were likely to view their responsibility as being tough on crime and crack down on minor offenses. Mixed approach schools were expected to have lower rates of recorded crime through mechanisms such as making students feel safer (Crews et al., 2013), increasing communal social organization by forming more supportive relationships through additional roles (Cook et al., 2010), enhancing informal interactions, and providing additional services. Different predictions for crime types were made because a difference in role approaches was not expected to affect serious violent/weapon/drug crimes, but there was expected to be a moderating effect for the less serious crimes.

Contrary to the hypothesis that law enforcement only schools would have a stronger association with crimes recorded and reported, the mixed approach schools experienced more of these outcomes of interest. This may have been a result of detection through the mechanisms of perceptions and informal interactions. Juveniles may have been more trusting of mixed approach SROs and may have been more comfortable reporting crimes

to them. Additionally, mixed approach SROs were likely spending more time on school grounds and with students serving their multiple roles which may have resulted in more opportunities to record and report crimes.

Limitations

Although the methods used in this study constitute a more rigorous evaluation and accounted for internal validity more than previous research, there were still limitations to be considered. First, the most important limitation was the inability to test the possible mediating mechanisms that might have explained the results. There were several mechanisms through which the roles could affect the outcomes of interest, and this study could not assess which of these possible mechanisms was at play. Future research should test for the identified mediators to determine the important mechanisms.

Second, the measurement of the dependent variables may have been influenced by having police officers stationed in the schools (Na & Gottfredson, 2011). Since the data for this study came from principal reports, it is likely that principals may differ in the accuracy of their reports. That is, schools without SROs may have had more leniency in underreporting incidents and schools with SROs may have more adequately kept track of and recorded crimes. Therefore, schools with SROs may appear to have more crime but it could just be that these schools were under more pressure to accurately report incidents. Instead of relying solely on principal reports, subsequent research could measure the dependent variables in ways that do not conflict with the recording of crimes in schools such as student self-report surveys (Na & Gottfredson, 2011).

Third, there may have been unmeasured selection effects confounding the results due to the inability to measure changes in SRO role approaches from time one to time two.

Although this study attempted to control for pre-existing differences between schools with no police, law enforcement only SROs and mixed SROs, there may have been unobservable characteristics which could not be controlled for in the analysis. Future research should use a randomized controlled trial to assess change in SRO roles over time.

Fourth, the data only allowed for a limited evaluation of the roles of the SROs. Travis & Coon (2005) stated that SROs could perform a wide variety of activities under the larger terms of law enforcement only role and mixed approach role and that the frequencies of these activities vary from daily to a few times a week/month/year. This study could only examine the roles based off of whether principals reported that the SRO served the broad roles, but it was not possible to see which activities specifically were being conducted and how often. Future research should assess whether there are differences between the roles based on the specific functions that are served and the frequencies of them.

Finally, the sample used in this study is not nationally representative (Na & Gottfredson, 2011). Although this sample did originate from the nationally representative SSOCS, the sample used in this study only included schools that appeared more than once in the three cross-sectional samples (Na & Gottfredson, 2011). Therefore, this sample overrepresented schools that had characteristics associated with crime such as secondary schools, large schools, and schools not located in rural areas (Na & Gottfredson, 2011).

Recommendations

Recommendations for future research mostly include addressing the limitations that this study experienced. That is, testing the possible mediators, using other measures of the dependent variable such as self-reports, controlling for unmeasured changes over time, and

examining data which includes the level of activities of SROs and how often these activities occur. Additionally, this study can be extended by assessing the effects of the role approaches over multiple time points.

In terms of policy recommendations, the evidence from this study suggests that police officers in schools are not serving their intended purpose. The cost of having SROs is high so it is important to know what these officers are actually doing and what the effects are as well. It is likely that the mentoring and teaching roles were added to the more traditional law enforcement role to reduce crime by allowing the officers to become more embedded in the students' environment establishing trust and providing more resources for them. The influence of just the traditional law enforcement role was likely not adequate for school settings whereas a multidimensional role approach offers various opportunities for students to be positively influenced by the SRO. However, the results here demonstrated that schools with mixed approach SROs were more likely to record all crime types and to report non-serious violent and property crimes to law enforcement than schools without police. Although this may be due to the detection mechanism, it should still be taken into consideration when discussing policy implications because less serious offenses are likely to be treated more harshly with mixed approach SROs. This opens up the opportunity for youths to potentially be sent through the juvenile or criminal justice systems for offenses that otherwise may have been handled in traditional ways.

Overall, the evidence does not suggest that the roles of the officers contribute to a decrease in crime and it should be considered whether money and resources can be better spent on programs and policies known to be effective. Mixed approach SROs likely cost more than SROs solely serving the law enforcement only role because their roles require

more training and they may be working more hours if they have more responsibilities (e.g. coaching a sports team). Due to the extra costs of mixed approach SROs and the evidence suggesting that these officers do not achieve the intended goals of reducing the recording and reporting of crime, it may be more appropriate to allocate resources to other services. For example, instead of using mixed approach officers, money can be spent on mentoring programs that have shown to be effective. Schools could implement evaluated mentoring programs such as Big Brothers Big Sisters which is designed to match a youth with an adult on various qualities to ensure that the match will evolve into a relationship filled with guidance and support as well as other positive outcomes (Grossman & Tierney, 1998). Several evaluations of this program have been conducted and the results have been positive (Cook et al., 2010). Additionally, numerous school-based prevention programs targeting delinquency and risk factors for criminal behavior have been evaluated and the results indicate that these programs are effective (Cook et al., 2010; Na & Gottfredson, 2011). SROs are intended to reduce crime and positively influence students through roles such as teaching and mentoring but the research thus far reveals that they are not serving their intended goals and until rigorous research identifies mixed approach SROs has an evidence-based strategy, resources should be spent on more effective ways to provide these services.

Appendix

Table 1: Descriptive Statistics for Dependent Variables (Time 2)

Variable	Mean	SD	Min	Max	n
Crimes recorded					
Serious violent/weapon/drug	11.59	15.02	0	103	475
Non-serious violent crime	36.91	58.74	0	709.47	475
Property crime	12.13	14.74	0	119.45	475
Percentages of crimes reported to law enforcement					
Serious violent/weapon/drug	.736	.442	0	1	397
Non-serious violent crime	.501	.501	0	1	439
Property crime	.349	.477	0	1	418

Table 2: Descriptive Statistics for Primary Independent Variables at Time 2

Variable	Mean	SD	Min	Max	n
No Police	.229	.421	0	1	475
Law Enforcement Only	.149	.357	0	1	475
Mixed	.621	.486	0	1	475

Table 3: Distribution of Roles at Time 1 and Time 2

		<i>Time 2</i>			Total
		No Police	LE Only	Mixed	
<i>Time 1</i>	No Police	86	16	24	126
	LE Only	5	20	31	56
	Mixed	18	35	240	293
	Total	109	71	295	475

Table 4: Descriptive Statistics for Independent Variables (Sensitivity Check)

Variable	Mean	SD	Min	Max	n
No Police	.249	.433	0	1	346
Law Enforcement Only	.058	.234	0	1	346
Mixed	.694	.462	0	1	346

Table 5: Descriptive Statistics of Control Variables

Variable	Mean	SD	Min	Max	n
Crimes Recorded (T1)					
Serious violent/weapon/drug	11.40	16.20	0	175	475
Non-serious violent crime	32.27	53.84	0	656.29	475
Property crime	11.81	13.92	0	110.86	475
Crimes Reported (T1)					
Serious violent/weapon/drug	83.02	30.50	0	100	404
Non-serious violent crime	44.84	39.42	0	100	453
Property crime	61.30	40.42	0	100	432
Number of part time SROs	.295	.568	0	4	475
Number of full time SROs	.611	.873	0	9	475
Had prevention curriculum	.827	.378	0	1	475
Had student counseling	.941	.236	0	1	475
Percent male	49.78	7.11	0	90	475
SES Index	35.72	26.89	1.45	99.95	466
Percent average attendance	93.11	7.402	7	100	475
(ln) Total enrollment	6.86	.633	4.41	8.34	475
Crime in School Location					
Low level of crime	.752	.433	0	1	475
Moderate level of crime	.183	.387	0	1	475
High level of crime	.065	.247	0	1	475
Student Teacher Ratio					
Low S/T ratio	.309	.463	0	1	475
Medium S/T ratio	.436	.496	0	1	475
High S/T ratio	.255	.436	0	1	475
School Location					
City	.272	.445	0	1	475
Urban Fringe	.417	.494	0	1	475
Town	.107	.310	0	1	475
Rural	.204	.404	0	1	475
School Level					
Elementary	.061	.240	0	1	475
Middle	.371	.484	0	1	475
Secondary	.568	.496	0	1	475
Pass Through Metal Detector	.019	.136	0	1	475
Random Metal Detector Checks	.095	.293	0	1	475
Random Dog Sniffs	.486	.500	0	1	475
Clear/Banned Book Bags	.091	.287	0	1	475
Security Cameras	.575	.495	0	1	475
Require Student IDs	.135	.341	0	1	475

Table 6. Mean Differences on Continuous Variables by SRO Role Approach

	Role					
	LE Only vs. No Police		Mixed vs. No Police		LE Only vs. Mixed	
	Mean Difference	SD	Mean Difference	SD	Mean Difference	SD
Crimes Recorded Time 1						
Serious/weapon/drug	9.861***	2.395	9.756***	1.76	-0.105	2.076
Non-serious violent	23.208**	7.774	26.378***	5.713	3.168	6.738
Property	8.622**	3.114	10.884***	2.289	2.262	2.699
Crimes Reported Time 1						
Serious/weapon/drug	6.204	5.115	16.941***	3.977	10.736**	4.12
Non-serious violent	14.327*	5.986	27.092***	4.47	12.766*	5.083
Property	8.813	6.447	21.258***	4.879	12.446*	5.382
Number of Part-Time SROs	0.041	0.085	0.214***	0.063	0.172*	0.074
Number of Full-Time SROs	0.444***	0.126	0.684***	0.093	0.24*	0.109
Percent Male	0.933	1.074	-1.77	0.789	-2.703	0.931
SES Index	8.537*	4.122	4.837	3.034	-3.7	3.572
Percent Average Attendance	-0.496	1.129	-1.134	0.83	-0.638	0.978
Total Enrollment	576.040***	93.076	649.117***	68.409	73.077	80.676

*p≤.05, **p≤.01, ***p≤.001

n's range from 71 to 109 for No Police, 65 to 71 for LE Only, and 268 to 295 for Mixed

Table 7. Categorical Control Variables by SRO Role Approach

	Role		
	No Police Percentage	LE Only Percentage	Mixed Percentage
Did the school have:			
Prevention Curriculum	83.49% ^a	67.61% ^b	86.10%
Student Counseling	90.83%	92.96%	95.59%
Students Pass Through Metal Detectors	0.92%	4.23%	1.69%
Random Metal Detector Checks	2.75% ^{a,b}	18.31% ^b	9.83%
Random Dog Sniffs	34.86% ^b	42.25% ^b	55.25%
Security Cameras	40.37% ^{a,b}	63.38%	62.37%
Require Student ID	0.92% ^{a,b}	19.72%	16.61%
Require Clear/Banned Book Bags	7.34%	5.63%	10.51%
School Characteristics:			
Crime in School Location			
Low Level of Crime	82.57% ^a	69.01%	73.90%
Moderate Level of Crime	13.76%	25.35%	18.31%
High Level of Crime	3.67%	5.63%	7.80%
Student Teacher Ratio			
Low S/T Ratio	33.03%	30.99%	30.17%
Medium S/T Ratio	44.95%	49.30%	41.69%
High S/T Ratio	22.02%	19.72%	28.14%
School Location			
City	14.68% ^{a,b}	35.21%	29.83%
Urban Fringe	43.12%	40.85%	41.36%
Town	12.84%	7.04%	10.85%
Rural	29.36% ^b	16.90%	17.19%
School Level			
Elementary	21.10% ^{a,b}	4.23%	1.02%
Middle	45.87% ^b	39.44%	33.22%
Secondary	28.44% ^{a,b}	56.34%	64.07%

n = 109 for No Police, 71 for LE Only, and 295 for Mixed

a = This value is significantly different from the value for "LE Only" p<.05

b = This value is significantly different from the value for "Mixed" p<.05

Table 8. Negative Binomial Regressions of Crimes Recorded on Police Presence (n = 466)

	Non-serious violence		Property		Serious violence/ weapon/drug	
	exp(<i>bx</i>)	SE	exp(<i>bx</i>)	SE	exp(<i>bx</i>)	SE
Police presence	1.481**	0.195	1.696***	0.249	1.696***	0.249
Crime (t1)	1.002	0.001	1.002	0.003	1.002	0.003
Number of part-time SROs	0.902	0.071	1.015	0.104	1.015	0.104
Number of full-time SROs	0.937	0.055	0.977	0.063	0.977	0.063
Low SES	1.005*	0.002	1.008**	0.003	1.008**	0.003
(ln) Total enrollment ^a	.688**	0.186	.564**	0.152	.747***	0.152
Prevention curriculum	1.150	0.141	1.145	0.157	1.144	0.157
Random metal detector checks	1.491*	0.259	0.887	0.175	0.887	0.175
Random dog sniffs	1.191	0.115	0.998	0.109	0.998	0.109
Security cameras	1.127	0.108	1.051	0.115	1.051	0.115
Require student ID	1.127	0.164	0.920	0.151	0.920	0.151
School in low crime area	0.861	0.11	0.925	0.136	0.925	0.136
School location: city	1.067	0.13	1.103	0.148	1.103	0.148
School location: rural	0.764*	0.096	0.753*	0.103	0.753*	0.103
School level	0.737**	0.076	1.64***	0.179	1.64***	0.179
Constant	0.391	0.256	0.098***	0.068	0.098***	0.068

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

a = Following Osgood (2000) and Na & Gottfredson (2011), the coefficients for enrollment need to be transformed because they are elasticities. Therefore, one was subtracted from the original coefficients and the test statistics were calculated from $(b-1)/SE$ rather than b/SE .

Table 9. Logistic Regressions of Crimes Reported on Police Presence

	Non-serious violence		Property		Serious violence/ weapon/drug	
	Odds Ratio	SE	Odds Ratio	SE	Odds Ratio	SE
Police presence	2.356*	0.841	1.79	0.609	1.733	0.659
Crime (t1)	1.012***	0.003	1.011***	0.003	1.01*	0.004
Number of part-time SROs	1.182	0.238	1.072	0.204	1.108	0.278
Number of full-time SROs	1.141	0.163	1.023	0.13	1.263	0.257
Low SES	0.998	0.006	1.003	0.006	1.003	0.007
(ln) Total enrollment	1.545	0.36	1.44	0.334	1.396	0.394
Prevention curriculum	0.605	0.179	1.146	0.33	1.175	0.382
Random metal detector checks	1.551	0.627	0.717	0.291	1.175	0.579
Random dog sniffs	1.791*	0.411	1.016	0.231	1.124	0.306
Security cameras	1.132	0.271	1.524	0.358	0.746	0.209
Require student ID	1.406	0.496	1.524	0.508	0.593	0.228
School in low crime area	1.423	0.436	1.041	0.321	0.776	0.283
School location: city	1.47	0.424	1.145	0.319	1.392	0.467
School location: rural	1.449	0.448	1.351	0.417	1.456	0.529
School level	1.68*	0.43	1.332	0.323	1.056	0.305
Constant	0.002***	0.003	0.006***	0.01	0.06	0.115
	n = 418		n = 387		n = 358	

*p≤.05, **p≤.01, ***p≤.001

Table 10. Negative Binomial Regressions of Crimes Recorded on SRO Roles at Time 2 (n = 466)

	Non-serious violence		Property		Serious violence/ weapon/drug	
	exp(<i>bx</i>)	SE	exp(<i>bx</i>)	SE	exp(<i>bx</i>)	SE
Law Enforcement Only (t2)	1.375	0.232	1.753**	0.326	1.328	0.220
Mixed (t2)	1.510**	0.203	1.677***	0.255	1.450**	0.192
Crime (t1)	1.002	0.001	1.002	0.003	1.017***	0.004
Number of part-time SROs	0.899	0.071	1.018	0.104	0.998	0.084
Number of full-time SROs	0.934	0.054	0.979	0.064	1.049	0.065
Low SES	1.005*	0.002	1.008**	0.003	1.006**	0.002
(ln) Total enrollment ^a	.690**	0.186	.565**	0.152	.748**	0.203
Prevention curriculum	1.130	0.141	1.152	0.160	0.964	0.121
Random metal detector checks	1.510*	0.264	0.878	0.176	0.976	0.168
Random dog sniffs	1.194	0.115	0.999	0.109	1.245*	0.119
Security cameras	1.130	0.109	1.050	0.115	1.113	0.107
Require student ID	1.130	0.164	0.924	0.152	0.992	0.142
School in low crime area	0.860	0.110	0.923	0.136	0.873	0.106
School location: city	1.068	0.130	1.103	0.148	1.093	0.128
School location: rural	0.762*	0.095	0.756*	0.179	0.816	0.101
School level	0.401**	0.076	1.644***	0.179	1.591***	0.163
Constant	0.401	0.263	0.096***	0.067	0.009***	0.006

*p≤.05, **p≤.01, ***p≤.001

a=Following Osgood (2000) and Na & Gottfredson (2011), the coefficients for enrollment need to be transformed because they are elasticities. Therefore, one was subtracted from the original coefficients and the test statistics were calculated from (b-1)/SE rather than b/SE.

Table 11. Logistic Regressions of Crimes Reported to Law Enforcement on SRO Roles at Time 2

	Non-serious violence		Property		Serious violence/ weapon/drug	
	Odds Ratio	SE	Odds Ratio	SE	Odds Ratio	SE
Law Enforcement Only (t2)	1.706	0.744	0.728 ^a	0.313	1.515	0.688
Mixed (t2)	2.583**	0.94	2.329*	0.813	1.836	0.725
Crime (t1)	1.012***	0.003	1.01***	0.003	1.009*	0.004
Number of part-time SROs	1.149	0.233	0.99	0.192	1.093	0.275
Number of full-time SROs	1.116	0.157	0.979	0.126	1.24	0.252
Low SES	0.998	0.006	1.003	0.006	1.003	0.007
(ln) Total enrollment	1.559	0.364	1.451	0.344	1.391	0.392
Prevention curriculum	0.556	0.169	0.927	0.278	1.138	0.376
Random metal detector checks	1.606	0.651	0.806	0.334	1.202	0.595
Random dog sniffs	1.767*	0.407	0.963	0.223	1.113	0.304
Security cameras	1.148	0.276	1.53	0.365	0.751	0.211
Require student ID	1.409	0.499	1.531	0.525	0.594	0.229
School in low crime area	1.415	0.434	1.035	0.325	0.781	0.285
School location: city	1.468	0.425	1.16	0.331	1.385	0.465
School location: rural	1.431	0.444	1.301	0.407	1.448	0.527
School level	1.647	0.424	1.273	0.315	1.049	0.303
Constant	0.002***	0.003	.008**	0.014	0.065	0.124

*p≤.05, **p≤.01, ***p≤.001

n = 418

n = 387

n = 358

a = This value is significantly different from the mixed approach value.

Table 12. Negative Binomial Regressions of Crimes Recorded (Same SRO Roles Used at Time 1 and Time 2 (n = 338))

	Non-serious violence		Property		Serious violence/ weapon/drug	
	exp(<i>bx</i>)	SE	exp(<i>bx</i>)	SE	exp(<i>bx</i>)	SE
	Law Enforcement Only (t2)	1.273	0.355	1.768*	0.507	1.438
Mixed (t2)	1.678**	0.278	1.871***	0.336	1.798***	0.3
Crime (t1)	1.004**	0.001	1.005	0.004	1.026***	0.005
Number of part-time SROs	0.890	0.086	0.934	0.113	0.875	0.096
Number of full-time SROs	0.941	0.062	0.973	0.067	1.032	0.074
Low SES	1.006*	0.003	1.003	0.003	1.007*	0.003
(ln) Total enrollment ^a	.650**	0.212	.711**	0.255	.687**	0.244
Prevention curriculum	1.039	0.151	1.037	0.164	1.169	0.18
Random metal detector checks	1.611*	0.347	1.012	0.232	1.032	0.225
Random dog sniffs	0.973	0.109	0.990	0.12	1.106	0.126
Security cameras	1.019	0.115	1.034	0.127	1.168	0.136
Require student ID	0.961	0.165	0.897	0.164	1.011	0.174
School in low crime area	0.898	0.141	0.928	0.162	0.875	0.133
School location: city	1.038	0.146	1.375*	0.205	1.074	0.148
School location: rural	0.888	0.133	1.055	0.17	0.839	0.129
School level	0.915	0.111	1.468**	0.182	1.494***	0.112
Constant	0.328	0.261	.025***	0.022	0.013	0.012

*p≤.05, **p≤.01, ***p≤.001

a = Following Osgood (2000) and Na & Gottfredson (2011), the coefficients for enrollment need to be transformed because they are elasticities. Therefore, one was subtracted from the original coefficients and the test statistics were calculated from (b-1)/SE rather than b/SE.

Table 13. Logistic Regressions of Crimes Reported (Same SRO Roles Used at Time 1 and Time 2)

	Non-serious violence		Property		Serious violence/ weapon/drug	
	Odds Ratio	SE	Odds Ratio	SE	Odds Ratio	SE
Law Enforcement Only (t2)	1.106	0.778	0.235 ^a	0.187	1.132	0.861
Mixed (t2)	2.712*	1.247	2.333	1.042	1.044	0.569
Crime (t1)	1.01**	0.004	1.009*	0.004	1.013*	0.005
Number of part-time SROs	1.18	0.295	1.108	0.301	1.681	0.651
Number of full-time SROs	1.011	0.152	0.914	0.151	1.207	0.322
Low SES	0.998	0.007	1	0.007	1.001	0.008
(ln) Total enrollment	1.667	0.472	1.794	0.542	1.883	0.698
Prevention curriculum	0.534	0.198	1.123	0.409	0.951	0.411
Random metal detector checks	0.878	0.421	1.129	0.614	0.977	0.64
Random dog sniffs	1.86	0.515	0.76	0.215	1.484	0.508
Security cameras	0.992	0.281	1.63	0.463	0.62	0.221
Require student ID	1.297	0.546	1.148	0.478	0.668	0.325
School in low crime area	1.413	0.528	0.724	0.285	0.582	0.275
School location: city	1.777	0.608	1.128	0.391	1.499	0.632
School location: rural	0.991	0.368	1.447	0.556	1.008	0.448
School level	1.178	0.36	1.085	0.323	0.602	0.236
Constant	.004**	0.008	.005**	0.009	0.067	0.165

*p<.05, **p<.01, ***p<.001

n = 300

n = 280

n = 256

a = This value is significantly different from the mixed approach value.

References

- Addington, L. A. (2009). Cops and cameras: Public school security as a policy response to Columbine. *American Behavioral Scientist*, 52, 1426-1446.
- Beger, R. R. (2002). Expansion of police power in public schools and the vanishing rights of students. *Social Justice*, 29(1/2), 119-130.
- Brady, K. P., Balmer, S., & Phenix, D. (2007). School-police partnership effectiveness in urban schools: An analysis of New York City's impact schools initiative. *Education and Urban Society*, 39, 455-478.
- Brick, B. T., Taylor, T. J., & Esbensen, F. A. (2009). Juvenile attitudes towards the police: The importance of subcultural involvement and community ties. *Journal of Criminal Justice*, 37, 488-495.
- Brown, B. (2006). Understanding and assessing school police officers: A conceptual and methodological comment. *Journal of Criminal Justice*, 34, 591-604.
- Brunson, R. K. (2007). Police don't like black people: African-American young men's accumulated police experiences. *Criminology & Public Policy*, 6(1), 71-102.
- Cameron, A. D., & Trivedi, P. K. (1998). Regression analysis of count data. Cambridge: Cambridge University Press.
- Cook, P. J., Gottfredson, D. C, and Na, C. (2010). School crime control and prevention. In Tonry, M. (ed). *Crime and Justice: A Review of Research*. Chicago: The University of Chicago Press.
- Crews, G. A., Crews, A. D., & Burton, C. E. (2013). The only thing that stops a guy with a bad policy is a guy with a good policy: An examination of the NRA's "National School Shield: proposal. *American Journal of Criminal Justice*, 38, 183-199.
- Dinkes, R., Kemp, J., and Baum, K. (2009). Indicators of School Crime and Safety: 2009 (NCES 2010-012/ NCJ 228478). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, and Bureau of Justice Statistics, Office of Justice Programs, U.S. Department of Justice. Washington, DC.
- Finn, P., & McDevitt, J. (2005). National assessment of school resource officer programs. Final Project Report. Cambridge, MA. Retrieved from <http://www.ncjrs.gov/pdffiles1/nij/grants/209273.pdf>
- Finn, P., Shively, M., McDevitt, J., Lassiter, W., & Rich, T. (2005). Comparison of program activities and lessons learned among 19 school resource officer (SRO) programs. Retrieved from <<http://www.ncjrs.gov/pdffiles1/nij/grants/209272.pdf>>

- Fratello, J., Rengifo, A. F., Trone, J. (2013). Coming of age with stop and frisk: Experiences, self-perceptions, and public safety implications. *Vera Institute of Justice*, 1-26.
- Gottfredson, G. D., & Gottfredson, D. C. (1985). *Victimization in schools*. New York: Plenum Press.
- Gottfredson, G. D., & Gottfredson, D. C. (2001). What schools do to prevent problem behavior and promote safe environments. *Journal of Educational and Psychological Consultation*, 12(4), 313-344.
- Gottfredson, D. C., & Gottfredson, G. D. (2002). Quality of school-based prevention programs: Results from a national survey. *Journal of Research in Crime and Delinquency*, 39, 3-35.
- Gottfredson, G. D., Gottfredson, D. C., Payne, A. A., & Gottfredson, N. A. (2005). School climate predictors of school disorder: Results from a national study of delinquency prevention in schools. *Journal of Research in Crime and Delinquency*, 42, 412-444.
- Gottfredson, D. C., Wilson, D. B., & Najaka, S. S. (2002). School-based crime prevention. In L. W. Sherman, D. P. Farrington, C. Brandon Welsh, & D. L. MacKenzie (Eds.), *Evidence-based crime prevention* (p. 56-164). London: Routledge.
- Gregory, A., & Cornell, D. (2009). "Tolerating" adolescent needs: Moving zero tolerance policies in high school. *Theory Into Practice*, 48(2), 106-113.
- Grossman, J. B., & Tierney, J. P. (1998). Does mentoring work?: An impact study of the Big Brothers Big Sisters program. *Evaluation Review*, 22, 403- 426.
- Guevara, L., Taylor, A. P., & Brown, R. A. (2011). Racial disparities in juvenile court outcomes: A test of the liberation hypothesis. *Journal of Ethnicity in Criminal Justice*, 9(3), 200-217.
- Heaviside, S., Rowand, C., Williams, C., & Farris, E. (1998). *Violence and Discipline Problems in US Public Schools: 1996-97*. US Government Printing Office, Superintendent of Documents, Mail Stop: SSOP, Washington, DC 20402-9328..
- Hinds, L. (2007). Building police-youth relationships: The importance of procedural justice. *Youth Justice*, 7(3), 195-209.
- Hinds, L. (2009). Youth, police legitimacy and informal contact. *Journal of Police and Criminal Psychology*, 24, 10-21.

- Jackson, A. (2002). Police-school resource officers' and students' perception of the police and offending. *Policing: An International Journal of Police Strategies & Management*, 25(1), 631-650.
- James, N., & McCallion, G. (2013). School resource officers: Law enforcement officers in schools. *Congressional Service Research*, 1-35.
- Jennings, W. G., Khey, D. N., Maskaly, J., & Donner, C. M. (2011). Evaluating the relationship between law enforcement and school security measures and violent crime in schools. *Journal of Police Crisis Negotiations*, 11(2), 109-124.
- Johnson, I. M. (1999). School violence: The effectiveness of a school resource officer program in a southern city. *Journal of Criminal Justice*, 27(2), 173-192.
- Kalven, H., Jr., & Zeisel, H. (1966). *The American Jury*. Boston, MA: Little Brown.
- Kaufman, P., Chen, X., Choy, S. P., Ruddy, S. A., Miller, A. K., Chandler, K. A., Chapman, C. D., Rand, M. R., and Klaus, P. Indicators of School Crime and Safety, 1999. U.S. Departments of Education and Justice. NCES 1999-057/NCJ-178906 Washington, D.C.: 1999.
- Lemert, E. M. (1951). *Social pathology: A systematic approach to the theory of sociopathic behavior*. New York: McGraw-Hill.
- Martinez, S. (2009). A system gone berserk: How are zero-tolerance policies really affecting schools? *Preventing School Failure: Alternative Education for Children*, 53(3), 153-158.
- 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), 75-93.
- May, D. C., & Higgins, G. E. (2011). The characteristics and activities of school resource officers: Are newbies different than veterans? *Journal of Police Crisis Negotiations*, 11(2), 96-108.
- Na, C. & Gottfredson, D. C. (2011). Police officers in schools: Effects on school crime and the processing of offending behaviors. *Justice Quarterly*, 30(4), 619-650.
- O'Neill, L., & McGloin, J. M. (2007). Considering the efficacy of situational crime prevention in schools. *Journal of Criminal Justice*, 35, 511-523.
- Osgood, D. W. (2000). Poisson-based regression analysis of aggregate crime rates. *Journal of Quantitative Criminology*, 16, 21-43.

- Paternoster, R., Brame, R., Bachman, R., & Sherman, L. W. (1997). Do fair procedures matter? The effect of procedural justice on spouse assault. *Law & Society Review*, 31(1), 163-204.
- Payne, A. A., Gottfredson, D. C., & Gottfredson, G. D. (2003). Schools as communities: The relationships among communal school organization, student bonding, and school disorder. *Criminology*, 41(3), 749-778.
- Robers, S., Kemp, J., and Truman, J. (2013). Indicators of School Crime and Safety: 2012 (NCES 2013-036/ NCJ 241446). National Center for Education Statistics, U.S. Department of Education, and Bureau of Justice Statistics, Office of Justice Programs, U.S. Department of Justice. Washington, DC.
- Ruddy, S.A., Neiman, S., Hryczaniuk, C.A., Thomas, T.L., and Parmer, R.J. (2010). 2007–08 School Survey on Crime and Safety (SSOCS) Survey Documentation for Public-Use Data File Users (NCES 2010-307). National Center for Education Statistics, Institute of Education Sciences, U.S.
- Schlosser, M. D. (2014). Multiple roles and potential role conflict of a school resource officer: A case study of the Midwest Police Department's school resource officer program in the United States. *International Journal of Criminal Justice Sciences*, 9(1), 131-142.
- Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Wadsworth Cengage learning.
- Sheldon, S. B., & Epstein, J. L. (2002). Improving student behavior and school discipline with family and community involvement. *Education and Urban Society*, 35, 4-26.
- Sherman, L. W. (1993). Defiance, deterrence, and irrelevance: A theory of the criminal sanction. *Journal of research in Crime and Delinquency*, 30(4), 445-473.
- Skiba, R., & Peterson, R. (1999). The dark side of zero tolerance: Can punishment lead to safe schools? *The Phi Delta Kappan*, 80(5), 372-376.
- Skinner, B., and Chapman, C. (1999). *Service-Learning and Community Service in K-12 Public Schools*. Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- Taylor, T. J., Turner, K. B., Esbensen, F., & Winfree Jr., L. T. (2001). Coppin' an attitude: Attitudinal differences among juveniles toward police. *Journal of Criminal Justice*, 29, 295-305.
- Theriot, M. T. (2009). School resource officers and the criminalization of student behavior. *Journal of Criminal Justice*, 37, 280-287.

- Theriot, M. T. (2013). The impact of school resource officer interaction on students' feelings about school and school police. *Crime & Delinquency*, 20(10), 1-24.
- Thomas, B., Towvim, L., Rosiak, J., & Anderson, K. (2013). School resource officers: Steps to effective school-based law enforcement.
- Thompson, A. M., & Alvarez, M. E. (2013). Considerations for integrating school resource officers into school mental health models. *Children & Schools*, 35(3), 131-136.
- Tonsager, K., Neiman, S., Hryczaniuk, C., and Guan, X. (2010). School Survey on Crime and Safety: 2007–08, Public-Use Data File Codebook (NCES 2010-334). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.
- Travis III, L. F., & Coon, J. K. (2005). The role of law enforcement in public school safety: A national survey. Retrieved from <<https://www.ncjrs.gov/pdffiles1/nij/grants/211676.pdf>>
- Torres, M. S., & Stefkovich, J. A. (2009). Demographics and police involvement: Implications for student civil liberties and just leadership. *Educational Administration Quarterly*, 45, 450-473.
- Tyler, T. R., & Fagan, J. (2008). Legitimacy and cooperation: Why do people help the police fight crime in their communities? *Ohio State Journal of Criminal Law*, 6, 231-275.
- Wacquant, L. (2001). Deadly symbiosis: When ghetto and prison meet and mesh. In D. Garland (Ed.) *Mass Imprisonment: Social Causes and Consequences* (p. 94-95). Thousand Oaks, CA: Sage.