

## PUNISHMENT IN SCHOOL: THE ROLE OF SCHOOL SECURITY MEASURES

THOMAS J. MOWEN  
*University of Delaware*

Although investigation of school security measures and their relationships to various outcomes including school crime rates (Gottfredson, 2001), perpetuation of social inequality (Ferguson, 2001; Nolan, 2011; Welch & Payne, 2010), and the impact on childhood experiences has seen significant growth within the last 20 years (Newman, 2004; Kupchik, 2010), few studies have sought to explore the impacts of these measures on suspension rates. Using data from the Educational Longitudinal Study (2002), I explore the relationship between security measures and in-school, out-of-school, and overall suspension rates. Results indicate schools with a security officer experience higher rates of in-school suspensions but have no difference in rates of out-of-school or overall suspensions compared to schools without a security officer. No other measure of security was related to higher suspension rates. As prior literature suggests, schools with greater proportions of black students experienced significantly higher rates of all suspension types. Finally, different types of parental involvement correlated with both higher and lower suspension rates.

Mowen, T. J. (2014). Punishment in School: The Role of School Security Measures. *International Journal of Education Policy & Leadership* 9(2). Retrieved from [www.ijep.l.org](http://www.ijep.l.org).

### Introduction

#### The Growth of School Security

Coinciding with the introduction of the school system in the United States, administrators, teachers, policymakers, and the general public alike have been concerned with the prevalence of student problem behavior in school. School officials have used a variety of measures to curb unwanted behavior in America's schools; however, concerns over specific problem behaviors have changed over time. As a consequence, the strategies that policymakers, teachers, and administrators use to deter such behaviors have also changed. Viewing these shifts historically will demonstrate how school security measures and policies have changed over time, thus situating the current project.

Researchers have shown that prior to the 1950s, most middle-class European Americans viewed secondary schools as an inclusive system of support and education with a focus on social mobility (Nolan, 2011). Coinciding with this, reports of school behavior from the 1930s and 1940s show

that the primary concerns of the general public and school administrators were related to issues of students dressing inappropriately, chewing gum in the classroom, creating too much noise in the hallways, and failing to dispose of trash in a proper manner (Goldstein, Apter, & Harootunian, 1984). After World War II and moving into the early 1950s, the concerns regarding problem behaviors in schools expanded slightly to include a lack of respect for authority, classroom theft, and vandalism (Stouffer, 1952).

As the United States moved into the late 1950s/1960s, significant events such as the Vietnam War and the Civil Rights Movement highlighted greater concern over behavior in the school system. Prompted by media coverage of these events that often portrayed violence (e.g., the Vietnam War) and perceived disrespect for authority (e.g., Civil Rights Movement), Congress reviewed and implemented national policies on school behavior in the 1960s (Phaneuf, 2009). Moving into the 1970s and 1980s, and coinciding with the war on drugs and drug-related crime, public attention shifted the national concern to the presence of drugs and

gangs in schools (Crews & Montgomery, 2001). As a result, the “technologization” of school security began a swift ascent that grew rapidly into the 1990s and 2000s (Casella, 2006).

The growth in zsecurity measures, such as the use of police and security resource officers, metal detectors, and surveillance cameras, and new school policies focusing on behavior in schools, such as zero tolerance, did not grow out of increased rates of violence in the school systems (Fox & Burstein, 2010; Wike & Fraser, 2009). Instead, the rapid growth of these measures and policies was prompted in large part by a number of highly publicized and sensationalized school shootings (Casella, 2006; Phaneuf, 2009). Although the general public often expected problem behavior in urban schools and schools located in neighborhoods with high crime rates (Ferguson, 2001; Nolan, 2011), the 1990s saw a number of highly publicized school shootings that occurred in unexpected venues of predominately white, middle-class suburbia (Phaneuf, 2009). These events ushered in a new era of school security aimed at reducing the presence of gangs, drugs, and violence in U.S. schools (Casella, 2006).

### Federal Policy and School Discipline

With the increase of attention given to school behavioral issues, the Federal Government and many state governments implemented numerous policies geared toward protecting America’s youth in the school systems. According to Casella (2003), these policies can be divided into three primary categories based on intended outcome: (1) violence prevention, (2) gun control, and (3) punitive and judicial discipline. As many researchers have argued, the focus on punitive and judicial justice has resulted in a shift in the way school security and disciplinary measures are used (see, Casella, 2003; Coon, 2007; Phaneuf, 2009). Security measures and enforcement are now generally geared toward zero tolerance and uniformly strict implementation of rules and sanctions.

Zero-tolerance policies have gained rapid ascendancy over the past two decades and have greatly affected both how discipline is carried out and the security measures that are used in conjunction. Skiba and Noam (2001) suggest that zero tolerance policies are “...intended primarily as a method of sending a message that certain behaviors will not be tolerated, by punishing all offenses

severely, no matter how minor” (p. 20). The use of zero-tolerance rhetoric quickly spread throughout the American education system as Phaneuf (2009) highlights; by 1989, a number of state school systems had adopted zero-tolerance perspectives on drugs and gang-related activity.

As soon as 1990, at least some level of zero tolerance aimed at reducing school violence was in effect in around 80 percent of all schools in the United States (Skiba & Noam, 2001). Skiba and Noam (2001) conclude that the use of zero tolerance and expulsions/suspensions in response to relatively minor offenses, such as the possession of a steak knife in a lunch box, a boy scout with a multipurpose tool that contained a half-inch knife, sharing a cough drop with another student, and the possession of toy weapons, are common practices rather than rare events.

### School Security and School Discipline

The drastic rise of the zero-tolerance perspective has seemingly increased the use of physical security measures over the past few decades (Casella, 2006; Coon, 2007; National Center for Education Statistics, 2012). Supporting this, myriad studies have found increased use of security practices in nearly all levels of secondary education over the past three decades. As of 2010, nearly 98 percent of all secondary schools required visitors to sign in upon entering the school; nearly 81 percent of all secondary schools reported a closed campus for lunch; 21 percent reported using metal detectors; 69 percent reported random drug sweeps; 76 percent reported security camera use; and finally, nearly 55 percent of all secondary schools reported using a police or school resource officer each day on campus, which is up nearly 25 percent since 1997 (National Center for Education Statistics, U.S. Department of Education, 2012). These numbers reflect a drastic change since the early 1990s (Casella, 2006).

Prior to 1997 the use of video surveillance cameras in K–12 schools was so uncommon that the U.S. Department of Education (DoE) did not collect data on the use of video surveillance or other questions related to policing and security equipment; instead, the DoE focused on actions and rules in schools (such as controlled access to school grounds). This changed in 2000 as the DoE began replacing questions about actions with questions concerning policing (National Center for

Education Statistics, 1997, 2012). Casella (2006) argues such shifts in security measures and the use of policing technology in the school system have resulted in the outlook that school security is a pseudobranch of national security utilizing many of the same “weapons” (metal detectors, canines, random searches, security cameras, and police officers) as police departments and branches of the military. Researchers have argued this increase in policy and security has seemingly increased the punitive tendency of schools in the United States (Nolan, 2011; Muschert & Peguero, 2010).

A number of mixed-methods and qualitative studies have found the use of zero tolerance school security measures that mirror those of police departments has resulted in an increase in the punitive climate in schools. In some ways, this climate has been found to adversely affect students. For example, in a study of 1,159 students, Sobel (2012) found that even though administrators and teachers supported the use of searches of students’ backpacks and lockers, the majority of students viewed these acts as negatively affecting the school atmosphere without providing an increase in safety. In addition, Sobel (2012) found that students in these high schools saw the random drug searches by police officers as violating their rights, resulting in higher levels of unfair punishment.

Other research has sought to explore the relationship between school security measures, the application of discipline, and adolescent outcomes. For example, Gottfredson (1989) concludes that students who believe school rules and policy are unfair also cite those unfair policies as being sources of tension in schools. Moreover, Gottfredson (1989) and Gottfredson (1986) found that “bad” schools are often characterized by a more punitive atmosphere and inconsistent enforcement of rules. These findings have been mirrored in more recent work.

After a yearlong study of two different schools, Bracy (2010) found that the use of school security measures, such as metal detectors and surveillance cameras, did not result in students perceiving a safer school atmosphere. Further, Bracy (2010) discovered that overall, students believed these security measures were unnecessary; students were acclimated to these practices and therefore did not wholly disagree with the use of increasingly “militaristic” security measures. In other words, the use of school security measures has been so normalized that students have become desensitized to

metal detectors, surveillance cameras, and police officers in their schools. Interestingly, Bracy (2010) found that the majority of students at both schools expressed concern over the schools’ disciplinary practices concerning punishment. Most commonly, students cited unfair application of the rules, a lack of ability to explain themselves when confronted by teachers or administrators, and administrators who did not listen to students who were in trouble as reoccurring issues that coincide with a zero-tolerance perspective on behavior and discipline. Zero-tolerance school security measures allow for strict punishments to be implemented even when administrators may realize such measures are unnecessary or unfair (Reyes, 2006). In this vein, Kupchik (2010) finds, “When a punishment seems unfair, an administrator can hide behind the cloak of zero tolerance, as if he or she has no choice but to suspend or expel a student when really the administrator chose to prescribe such harsh punishments” (p. 200).

## Dynamics of School Discipline

### Race

As with other institutions dealing with punishment, such as the criminal justice system (Western, 2006), research projects have found strong racial imbalances in both the application of punishment (Skiba, Michael, Nardo, & Peterson, 2000) and the perception of the equality of punishment among students in secondary schools (Kupchik & Ellis, 2008). Prior research has found that minority students are much more likely than white students to be expelled or suspended for the same behavioral issue (Kupchik & Ellis, 2008; Jung, 2007; Skiba et al., 2000). Moreover, metal detectors, police officers, and surveillance cameras are more likely to be used in schools with greater proportions of minority and low-income students (Devine, 1996; Nolan, 2011). Given the disproportionate application of disciplinary strategies along racial lines, other research projects have sought to assess the relationship between school security and race.

In exploring how perceptions of the equality of discipline vary among white, black, and Hispanic students, Kupchik and Ellis (2008) found that Hispanic students were no more likely to perceive unequal application of rules compared with white students. Kupchik and Ellis (2008) did find, how-

ever, that black students were more likely to believe that school rules were applied unfairly when compared to white students. These findings suggest there are important differences in the perception of school rules along some racial lines.

A number of students have found that black students are more likely to be expelled or suspended due to behavior than white students, all else equal (Skiba et al., 2000; Jung, 2007). Moreover, a significant number of research projects have found that black males are the most likely to be disciplined for minor offenses compared to males in other racial groups (Arcia, 2007; Verdugo, 2002). For example, Jung (2007) found that teenage black males were three times more likely than white males to receive in-school suspension (ISS) for similar offenses, and Hispanic males were two times more likely than white males to receive in-school suspension. The literature on the differences in Hispanic disciplinary rates compared with white and black disciplinary rates is mixed. Some studies have found that discipline rates are greater for Hispanics compared with whites; at the same time, others have found no difference (Gordon, Piana, & Keleher, 2000). Another factor common in the literature on school discipline is parental involvement, which has been found to be a strong predictor of the use of school security measures and rates of disciplinary action (Addington, 2009).

### Parental Involvement

Emerging research shows that parental involvement within the school is an important predictor of the use of school security measures (Mowen, 2013). For example prior studies have shown that schools with more visible security measures have lower levels of some forms of parental involvement compared to schools with less visible and invasive school security measures (Mowen, 2013). These scholars suggest this demonstrates that parents may not support the use of harsh discipline and/or security. In a similar line, Addington (2009) shows that parental support for school security tends increase following school shooting events, but then decreases as time passes. Ultimately, this suggest that parental involvement may be a significant correlate of the adoption of school security measures in some schools (Addington, 2009; Mowen, 2013).

In addition, research overwhelmingly finds that schools experiencing greater degrees of parental

involvement often experience much lower levels of misbehavior in school (Schneider & Coleman, 1993) and, thus, lower rates of suspension. It is important to note, however, that the same body of literature finds marked differences in parental involvement among race and class. Although parents across all sociodemographic boundaries cite involvement with their child's schooling as important (Muller, 1998), research generally concludes that racial minority parents and parents from lower socioeconomic backgrounds are less likely to be formally involved with the school (Lareau & Horvat, 1999). For example, black parents have been found to be less likely than white parents to interact with teachers and administrations, all else being equal (Friedman, Bobrowski, & Geraci, 2006). However, research also finds that informal involvement, that is, involvement in schooling at home such as helping with homework, does not vary across racial or socioeconomic boundaries (Coleman, 1998; Muller, 1998).

In regard to race and parental involvement, Jung (2007) found that academic achievement and parental involvement in school had a protective effect for both black and Hispanic students at the level of minor discipline. This finding is mirrored in other research; the more a parent is involved in schooling, the less likely the student is to engage in illicit behavior (Crosnoe, 2001; Darling, Kleiman, & Larocque, 2011; Wadsby & Svedin, 1996). However, these protective factors did not have any influence on the rates of in-school suspensions experienced by minority students (Jung, 2007). Scholars suggest that racial minorities do not receive the same benefits in regard to discipline as white students because they are more likely to have been punished severely already (Nolan, 2011; Welch & Payne, 2010), and even though minority youth do benefit emotionally and scholastically when their parents are more involved in their schooling (Darling et al., 2011), the same benefit has not been found in regard to discipline (Welch & Payne, 2010). This means that even though there are advantages for all racial groups in terms of parental involvement, minority students do not receive the same benefits within the system of discipline and punishment.

### Current Project

Of interest to the current work, Kupchik and Ellis (2008) found that students perceive more equal

application of rules when schools employ non-police security officers as opposed to full-dress police officers. If the students' perceptions are correct it is possible that there may be an important relationship between other forms of school security such as metal detectors and surveillance cameras and rates of school suspension. In other words, although it is impossible to know for sure from their study whether the distribution of school discipline is unfair in the presence of police officers as opposed to security guards, the findings of Kupchik and Ellis (2008) suggest that students at the very least perceive that there is a difference. It follows, then, that there may actually be a difference in school suspension rates in schools employing specific security measures.

Given the research outlining the deleterious effects of the use of zero-tolerance policies coupled with the use of more punitive school security measures on students (Bracy, 2010), it seems reasonable to expect that schools employing more drastic security measures, such as police officers, may also have higher rates of in-school suspensions and out-of-school suspensions (OSSs). This may be largely a result of an atmosphere that is more focused on school discipline than schools that do not employ these security measures. As prior research has found, it is also likely that schools with greater proportions of minority students will experience higher rates of school suspensions (Skiba et al., 2000). Overall, the final question then becomes, does the presence of some security measures artificially increase the use of in-school and out-of-school suspensions?

Although a number of important studies have investigated the relationship between school disciplinary rules and practices and the impacts of school security measures on the overall well-being of students, little research has sought to explore the relationship between specific school security measures and overall suspension rates, controlling for actual levels of delinquency within the school. Following a review of the literature, I hypothesize that schools employing security guards and metal detectors, which represent the most visible and newest forms of security (see Casella, 2006), will exhibit greater in-school, out-of-school, and overall suspension rates. Further, schools with greater proportions of black and Hispanic students will

experience higher rates of all measures of suspensions (see Skiba et al., 2000), and schools with greater levels of parental involvement will experience lower rates of both types of school suspensions, all else being equal.

## Methods

The data come from the Educational Longitudinal Study (ELS) collected in 2002. The purpose of the ELS data collection was to explore factors that contribute to education outcomes among students in the United States. The survey administered to students included questions on a host of topics such as family life, feelings about school, behavior, and future aspirations. A total of 750 public and private schools were surveyed across 10 states using cluster sampling. Within each school, students were chosen randomly to complete the primary questionnaire; purposive sampling was used to oversample Asian-American students to ensure that enough data were collected to allow for meaningful analysis ( $n = 16,127$  students).<sup>1</sup>

Data on the dependent variable, suspension, were collected using an ordinal measure; students were asked to select the range of suspensions they had received (1–2 times, 3–6 times, 7–9 times, and 10 or more times). In order to best capture the frequency of suspension rates for each school, a dummy variable was created representing that the student indicated they had been suspended any number of times. This measure was then aggregated to the school level and divided by the total number of students surveyed for each school. The final variable, therefore, represents the proportion of suspensions for each school over the course of the previous year. Because this measure is skewed, with most students having reported never being suspended, the natural log transformations for each type of suspension are used. See Figure 1 (next page) for distributions of these measures.

Data on the independent variable, school security measures, were collected through the ELS data facility checklist completed by the interviewer. These measures included metal detectors, security cameras, required sign-in area for any visitor, fencing around the entirety of the building, and the presence of a school security guard. Each of these variables was then coded to represent the presence

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<sup>1</sup>To correct for oversampling, sampling weights, derived by the ELS methodologists based on U.S. Census data (2004), are used in the current study (see page B19, ELS codebook).

of each security measure (1 indicating yes) within each school.

A number of theoretically important control variables are used in my analysis. Prior literature suggests that the levels of crime in the neighborhood and in the school both impact the use of school security measures (Nolan, 2011) and may affect the climate of the school in regard to discipline. Ordinal data on neighborhood crime were collected from the school administrator, with 1 indicating very low levels of crime and 4 indicating very high levels of crime. Schools without these measures were not included in the analysis, therefore accounting for an N of 650 on this measure. Levels of delinquency and crime in the school were collected from the administrator using a 12-item scale. The scale includes measures of fighting, cutting class, drug use, drug sales, gang activity, vandalism, theft, presence of weapons, abuse of teachers, presence of bullying, verbal abuse of teachers and staff, and general levels of disorder. The scale has a Chronbach's alpha of 0.84.

As revealed by a review of the literature, a number of studies have shown that disciplinary practices (Welch & Payne, 2010) and the presence of school security measures (Nolan, 2011) correspond to the percent minority in the school. To account for the influence of racial dynamics on school suspensions, my analysis uses variables representing the proportion of black, Hispanic, Asian-American, and other races (proportion white contrast) for each school. In order to further explore this relationship, I will introduce interaction terms between minority groups and each security measure.

Socioeconomic status and income have also been found to influence the presence of school security measures and suspension rates, with more affluent schools less likely to use school security measures (Nolan, 2011) and also less likely to use more extreme punishments, such as school suspensions (Addington, 2009). To measure income, one parent of each student surveyed was asked to provide their range of total annual income (1 indicating no income and 13 indicating income greater than \$200,000). The mean level of income for each school was computed and then aggregated to the school level.

Finally, prior research suggests that parental involvement within the school may influence the school's suspension rates. Schools with higher rates of parental involvement have been shown to

be more likely to employ alternative disciplinary strategies to suspensions (Townsend, 2000). ELS collected data from one parent of each student concerning both formal and informal parental involvement with the school.

To measure informal parental involvement, ELS researchers asked parents, for example, how much contact they had with their children's schools regarding their child's attendance, classes, grades, and behavior. Unlike previous research projects using the ELS data (Peguero & Shekarkhar, 2011), a rotated factor analysis was performed on the informal parental involvement measures (results not shown but available upon request). This yielded two distinct factors: academic involvement and behavioral involvement. Factor 1, informal academic involvement, is comprised of three measures: parents involving themselves with the school concerning courses for their child, plans for their child, and programs for their children ( $\alpha = 0.714$ ). Factor 2, informal behavioral involvement, is comprised of four measures: parents contacting the school for problem behavior in school, for poor academic performance, for school attendance or truancy, and because the student was not completing their schoolwork ( $\alpha = 0.709$ ).

To capture formal parental involvement, parents were asked if they were members of the PTA, whether or not they attended PTA meetings, whether or not they were involved with the PTA in some other capacity, and whether or not they volunteered in a formal role with the school. These measures were combined to create an index of formal parental involvement ( $\alpha = 0.715$ ). Please see Figure 1 (next page).

## Analytic Strategy

I use separate ordinary least squares (OLS) regressions to assess the relationship between school security measures and in-school suspensions, out-of-school suspensions, and combined suspension rates. As noted previously, the natural log of all types of suspensions is used to account for skewness, making these measures appropriate for OLS. Further, prior literature suggests that school security measures may differentially affect minority student suspension rates (Nolan, 2011). To account for this, I will introduce interaction terms into the models to explore the conditional effect of the proportion of minority students and security measures on suspension rates.

Figure 1. Sample Characteristics (n = 751)

Variable	Mean	Standard Deviation	N	Alpha
Dependent variable				
Natural log of OSS	0.074	0.072	748	
Natural log of ISS	0.103	0.099	748	
Natural log of ISS and OSS	0.097	0.084	748	
Independent variables				
Security guard	0.493	0.500	746	
Metal detectors	0.064	0.245	737	
Cameras	0.283	0.451	734	
Fencing	0.262	0.440	730	
Sign-in	0.675	0.469	741	
Control variables				
Average income	9.050	1.40	750	
Proportion female	0.502	1.71	751	
Proportion white	0.571	0.329	751	
Proportion black	0.136	0.211	751	
Proportion Hispanic	0.144	0.210	751	
Proportion Asian-American	0.090	0.156	751	
Proportion other race	0.059	0.087	751	
Neighborhood crime	1.542	0.867	597	
School crime	27.380	6.03	650	0.840
Formal parent involvement	1.246	0.642	749	0.715
Informal academic involvement	1.218	0.522	749	0.714
Informal behavioral involvement	1.039	0.662	748	0.709

## Results

### In-School Suspensions

First, OLS regression is used to explore the relationship between in-school suspensions and school security, the results of which are shown in Figure 2 (next page).

As revealed by this analysis, only the presence of a security officer is related to higher levels of in-school suspensions ( $p < 0.05$ ). The presence of metal detectors is significantly related to lower levels of in-school suspensions ( $p < 0.05$ ). In addition, the proportion of Asian-American students, the proportion of female students, and higher levels of income are all related to lower rates of in-

Figure 2. School Security Measures Predicting School Suspension Rates

	In-School Suspensions		Out-of School Suspensions		Mean of ISS and OSS	
	Coefficient	(SE)	Coefficient	(SE)	Coefficient	(SE)
School crime levels	0.001	(0.0006)	0.001	(0.0005)	0.002*	(0.0008)
Neighborhood crime levels	0.007	(0.0049)	0.012***	(0.0036)	0.017**	(0.0073)
Security officer	0.032*	(0.0121)	0.014	(0.0090)	0.017	(0.0156)
Metal detectors	-0.033*	(0.0162)	0.002	(0.0062)	-0.030	(0.0201)
Security cameras	0.006	(0.0083)	0.001	(0.0062)	0.006	(0.0108)
School fencing	-0.006	(0.0089)	-0.010	(0.0066)	-0.142	(0.0115)
Sign-in requirement	-0.015	(0.0079)	-0.001	(0.0059)	-0.014	(0.0103)
Proportion black	0.106***	(0.0235)	0.073***	(0.0176)	0.160***	(0.0303)
Proportion Hispanic	0.008	(0.0215)	-0.013	(0.0160)	0.004	(0.0191)
Proportion Asian-American	-0.064**	(0.0242)	-0.039*	(0.0181)	-0.097**	(0.0313)
Proportion other race	0.034	(0.0418)	0.010	(0.0312)	0.042	(0.0529)
Proportion female	-0.057**	(0.2113)	-0.042**	(0.0158)	-0.093***	(0.0272)
Parental behavioral involvement	0.018**	(0.0066)	0.016***	(0.0051)	0.032***	(0.0085)
Parental academic involvement	-0.004	(0.0077)	-0.004	(0.0058)	-0.006	(0.0099)
Formal parental involvement	-0.022***	(0.0070)	-0.017***	(0.0051)	-0.036***	(0.0087)
Income	-0.014***	(0.0035)	-0.004	(0.0026)	-0.018***	(0.0045)
Proportion black–security guard interaction	0.120***	(0.0937)	–	–	0.122	(0.0946)

N = 555. For ISS,  $F = 12.16$ , and  $R^2 = 0.266$ ; for OSS,  $F = 9.59$ , and  $R^2 = 0.222$ ; and for mean of ISS and OSS,  $F = 16.55$ , and  $R^2 = 0.330$ . \*\*\* $p < 0.001$ , \*\* $p < 0.01$ , \* $p < 0.05$ , and + $p < 0.10$ .

school suspensions. At the same time, the proportion of black students is related to higher rates of in-school suspensions. Turning to parental involvement measures, the analysis revealed that informal parental behavioral involvement is significantly related to higher rates of in-school suspensions; contrastingly, formal parental involvement is significantly related to lower rates of in-school suspensions. These results suggest a complex relationship between parental involvement and in-school suspensions.

Next, I introduced interaction terms into the model. To create these terms, the proportion of minority students in each school was grand mean centered and then multiplied by each security measure. As revealed by the analysis, only the interaction between the proportion of black students and security officers is significant. Because this interaction is positive, it suggests that there is a conditional effect between the use of a security guard and the proportion of black students within the school on suspension rates; in other words,



schools with greater proportions of black students and a security guard have higher levels of in-school suspensions. Next, I explore the relationship between out-of-school suspensions and school security measures.

### Out-of-School Suspensions

The results shown in Figure 2 indicate that no school security measure is significantly related to out-of-school suspension; however, neighborhood crime and the proportion of black students in the school are both significantly related to greater rates of out-of-school suspensions. In contrast, the proportion of Asian-American students and the proportion of female students are related to lower rates of out-of-school suspensions. Similar to the analysis of in-school suspensions, parental behavioral involvement is significantly related to higher levels of out-of-school suspensions, and parental formal involvement is significantly related to lower levels of out-of-school suspensions. Again, interaction terms between security measures and race were introduced into the model (results not shown); no interaction term was significant. Next, I turn to mean rates of suspensions.

### Mean of Combined ISS and OSS

The results of the regression analysis for the mean proportion ISS/OSS indicate that neighborhood crime levels and the proportion of black students are both related to increased rates of overall suspensions. This analysis revealed that none of the school security measures are related to combined mean proportion suspension rates, and only the interaction between the proportion of black students and a security guard was approaching significance ( $p < 0.10$ ). The proportion of Asian-American students, the proportion of female students, and greater levels of income are all related to lower levels of overall suspensions. Again, there appears to be a notable pattern with parental involvement. Parental behavioral involvement is related to greater rates of overall suspension rates, but formal parental involvement is related to lower levels of overall suspension rates.

Overall, the results of the regression analysis overwhelmingly suggest that schools with a larger proportion of black students experience much greater rates of suspensions compared with schools with a greater proportion of white students, all else

being equal. The only notable finding in reference to security measures was that the presence of a security guard correlated with increased rates of in-school suspensions compared with schools without a security guard. Perhaps the most intriguing finding was that behavioral parental involvement was found to correlate with increased in-school, out-of-school, and overall suspension rates; formal parental involvement correlated with significantly lower levels of suspension rates, all else being equal.

### Discussion and Conclusion

The goal of the present research was to investigate the impact of school security measures on in-school suspensions, out-of-school suspensions, and overall rates of school suspensions. This study does have some notable limitations; for example, the cross-sectional nature of the study does not meet the criteria for establishing temporal order. As such, this project cannot determine if suspension rates are higher in schools because of the presence of a security officer or if the security officer is present due to higher levels of suspensions. Current limitations aside and given the significant increases in the use of high-tech security measures over the last few decades (Casella, 2006), this study adds to the literature because it is important to understand the effects of school security measures on student-related outcomes.

Overall, I found only partial support for the first hypothesis. Only school security guards correlated with greater rates of in-school suspension. No other security measure correlated with higher rates of any type of suspension, all else being equal. There are a number of theoretical explanations for these findings.

First, a number of recent research projects have found that students have acclimated to the presence of modern, high-security school measures (Bracy, 2010; Kupchik, 2010; Sobel, 2012). It could be the case that these security measures are so normalized that they do not affect the climate of the school and thus do not affect rates of school suspension. As Casella (2006) highlights, the use of fully dressed police officers represents the newest form of high-tech security measure. Although the present research cannot distinguish between fully dressed police officers and plainclothes resource officers, the finding that schools with security officers experienced significantly higher rates

of in-school suspensions could be due to the fact that police officers represent the newest and most visible form of school security. As highlighted in the literature review, in the presence of fully dressed officers, students perceived that discipline was unfair (Kupchik & Ellis, 2008). Although the present research project cannot confirm this, it does find, at least, partial support.

In addition, recent projects have found that having police officers in schools does not result in lower rates of crime, but it does significantly increase the punishment of minor offenses—such as disorderly conduct—with harsher punishments, including in-school suspensions (Chongmin & Gottfredson, 2011). Moreover, the use of a police officer in the school does not, overall, decrease problem behavior (Jennings, Khey, Maskaly, and Donner, 2011). Overall, the findings of this study support such assertions as they relate to the use of in-school suspensions.

The second hypothesis was also partially supported. The proportion of black students in the school was significantly related to all forms of suspensions. This is a finding that many scholars have confirmed (Ferguson, 2001; Nolan, 2011; Welch & Payne, 2010). Moreover, the interaction between a security guard and the proportion of black students in the schools was the only significant interaction, suggesting there is an important conditional effect between the proportion of black students in the school and the presence of a security guard on in-school suspensions. Scholars have found that schools with security officers are more likely to punish minor problem behavior more harshly than schools without school security officers (see Kupchik, 2010); however, it could also be that school administrators may feel safer in assigning students in-school suspensions, as opposed to out-of-school suspensions, when there is a security officer present.

The third and final hypothesis is of particular interest because parental involvement was found to correlate with both increased and decreased suspension rates based on the type of parental involvement. In all three measures of suspensions, informal parental behavioral involvement (that is, when there were greater levels of parents involved with the school due to their child's behavior) correlated with a significant increase in in-school, out-of-school, and total suspension rates. Conversely, the greater number of parents formally involved with the school correlated with a significant

decrease in in-school, out-of-school, and overall suspension rates. There are a number of plausible explanations for such a relationship.

First, due to the cross-sectional nature of the study, it is likely that those parents were involved with the school in regard to their child's behavior because the behavior was negative. In this case, one would expect the suspension rates to be greater. There is, however, another plausible explanation. It is possible that parents were involved with the school due to behavioral issues because the school was more punitive in nature; disciplining students for minor offenses under the guise of zero tolerance increased the suspension rates, which, in turn, increased the percentage of parents involved with the school because of these disciplinary issues. In this vein, Bracy (2010) states:

There can be significant downsides to many modern school security and discipline policies...zero-tolerance policies, automatic suspensions, surveillance systems, and SROs are symbolic of the powerlessness of students in contemporary public schools. These policies not only reduce discretion of school administrators but also diminish students' right to be heard, as any mitigating circumstances are deemed irrelevant (p. 389).

The second finding of interest is that formal parental involvement is related to significantly lower levels of all types of school suspensions. As prior literature would suggest, parents who are involved formally with the school tend to have children who do not engage in delinquent behavior compared with the children of parents who are not engaged with the school (Jung, 2007). Moreover, schools with a greater degree of parental formal involvement could be more likely to communicate openly about the behavior in the school compared with schools that do not experience parental formal involvement. In this case, one would expect suspension rates to be higher in schools that have little contact with parents.

One must wonder why different types of parental involvement were found to correlate distinctly with in-school, out-of-school, and overall rates of suspensions, even in the presence of controls for both school and neighborhood levels of crime. In addition, the presence of a security guard was found to correlate with greater rates of in-school suspensions, all else being equal, and thus negatively affect students. Because forms of

parental involvement were also related to suspensions, future research should investigate the impact of the use of the newest and most advanced security measures on parental dynamics within the school.

## References

- Addington, L. A. (2009). Cops and cameras: Public school security as a policy response to Columbine. *American Behavioral Scientist*, *512*, 1426–1445.
- Arcia, E. (2007). A comparison of elementary/K-8 and middle schools' suspension rates. *Urban Education*, *42*, 456–469.
- Bracy, N. L. (2010). Students perceptions of high-security school environments. *Youth and Society*, *43*, 365–395.
- Casella, R. (2003). Zero tolerance policies in schools: Rationale, consequences, and alternatives. *Teachers College Record*, *105*, 872–892.
- Casella, R. (2006). *Selling Us the Fortress: The Promotion of Techno-security Equipment for Schools*. New York: Taylor and Francis.
- Chongmin, N., & Gottfredson, D. (2011). Police officers in schools: Effects on school crime and the processing of offending behaviors. *Justice Quarterly*, *30*, 1–32. doi: 10.1080/07418825.2011.615754
- Coleman, J. S. (1998). Social capital and creation of human capital. *American Journal of Sociology*, *94*, 95–120.
- Coon, J. K. (2007). *Security Technology in U.S. Public Schools*. New York: KFB Scholarly Publishing.
- Crews, G. A., & Montgomery, R. H. (2001). *Chasing Shadows: Confronting Juvenile Violence in America*. Upper Saddle River, NJ: Prentice Hall. doi:10.1177/073401680402900212
- Crosnoe, R. (2001). Trends in academic orientation and parental involvement in education during high school. *Sociology of Education*, *74*, 210–230.
- Darling, S., Kleiman, I., & Larocque, M. (2011). Parental involvement: The missing link in school achievement. *Preventing School Failure*, *55*, 115–122.
- Devine, J. (1996). *Maximum Security: The Culture of Violence in Inner-City Schools*. Chicago: University of Chicago Press.
- Ferguson, A. A. (2001). *Bad Boys: Public Schools in the Making of Black Masculinity*. Ann Arbor, MI: University of Michigan Press.
- Fox, J. A., & Burstein, H. (2010). *Violence and Security on Campus: From Preschool Through College*. Denver, CO: Praeger.
- Friedman, B. A., Bobrowski, P. E., & Geraci, J. (2006). Parents' school satisfaction: Ethnic similarities and difference. *Journal of Educational Administration*, *44*, 471–486.
- Goldstein, A. P., Apter, S. J., & Harootunian, B. (1984). *School Violence*. Englewood Cliffs, NJ: Prentice Hall.
- Gordon, R., Piana, L. D., & Keleher, T. (2000). *Facing the Consequences: An Examination of Racial Discrimination in U.S. Public Schools*. Oakland, CA: Applied Research Center.
- Gottfredson, D. C. (1986). *An assessment of a delinquency prevention demonstration with both individual and environmental interventions*. Baltimore, MD: Center for Social Organization of Schools.
- Gottfredson, D. C. (1989). Developing effective organizations to reduce school disorder. In O. C. Moles (Ed.), *Strategies to Reduce Student Misbehavior* (pp. 87-105). Washington, DC: Office of Educational Research and Improvement.
- Gottfredson, D. C. (2001). *Schools and Delinquency*. London, England: Cambridge University Press.
- Greene, M. B. (2005). Reducing violence and aggression in schools. *Trauma, Violence and Abuse*, *6*, 236–253.
- Jennings, W., Khey, D., Maskaly, J., & Donner, C. (2011). Evaluating the relationship between law enforcement and school security measures and violent crime in schools. *Journal of Police Crisis Negotiations*, *11*, 109–124.
- Jung, S. (2007). Understanding racial-ethnic disparities in internal school suspension and identifying compensatory and protective factors. *Dissertation Abstracts International, A: The Humanities and Social Sciences*, *67*, 2753–2910.
- Kupchik, A. C. (2010). *Homeroom Security: School Discipline in the Age of Fear*. New York: New York University Press. doi: 10.1177/0094306111419111aa
- Kupchik, A. C., & Ellis, N. D. (2008). School discipline and security: Fair for all students? *Youth and Society*, *39*, 549–574.

- Lareau, A., & Horvat, E. M. (1999). Moments of social inclusion and exclusion: Race, class, and the cultural capital in family-school relationships. *Sociology of Education*, *72*, 37-53.
- Mowen, T. J. (2013, November 7). Parental Involvement in School and the Role of School Security Measures. *Education and Urban Society*, Advance online publication. doi 10.1177/0013124513508581
- Muller, C. (1998). Gender differences in parental involvement and adolescents' mathematics achievement. *Sociology of Education*, *71*, 336-356.
- Muschert, G. W., & Peguero, A. A. (2010). The Columbine effect and school antiviolence policy. *Research in Social Problems and Public Policy*, *17*, 117-148.
- National Center for Education Statistics. (1997). *Principal/school disciplinary survey on school violence*. (Form no. 63). Washington, DC: Fast Response Survey System, U.S. Department of Education.
- National Center for Education Statistics. (2012). *Indicators of school crime and safety*. Washington, DC: U.S. Department of Education.
- Newman, K. S. (2004). *Rampage: The Social Roots of School Shootings*. New York: Basic Books. doi: 10.1086/428888
- Nolan, K. (2011). *Police in the Hallways: Discipline in an Urban High School*. Minneapolis, MN: University of Minnesota Press. doi: 10.1177/0094306112438191m
- Peguero, A. A., & Shekarkhar, Z. (2011). Latino/a student misbehavior and school punishment. *Hispanic Journal of Behavioral Sciences*, *33*, 54-70.
- Peterson, R. L., Larson, J., & Skiba, R. (2001). School violence prevention: Current status and policy recommendations. *Law and Policy*, *23*, 345-371.
- Phaneuf, S. W. (2009). *Security in Schools: Its Effect on Students*. El Paso, TX: LFB Scholarly Publishing.
- Reyes, A. H. (2006). *Discipline, Achievement, and Race: Is Zero Tolerance the Answer?* Lanham, MD: Rowman and Littlefield Education.
- Schneider, B., & Coleman, J. S. (1993). *Parents, Their Children, and Schools*. Boulder, CO: Westview.
- Skiba, R. J., & Noam, G. G. (2001). *New Directions for Youth Development: Vol. 92. Zero-Tolerance: Can Suspension and Expulsion Keep Schools Safe?* New York: Josey-Bass.
- Skiba, R. J., Michael, R. S., Nardo, A. C., & Peterson, R. (2000). *The color of discipline: Sources of racial and gender disproportionality in school punishment*. (Research Report no. SRS1). Bloomington, Indiana: Indiana Education Policy Center.
- Sobel, R. (2012). Perception of violence on a high school campus. *Journal of Applied Security Research*, *7*, 11-21.
- Stouffer, G. A. (1952). Behavior problems of children as viewed by teachers and mental hygienist, a study of present attitudes as compared with those reported by E. K. Wickman. *Mental Hygiene*, *36*, 271-285.
- Townsend, B. L. (2000). The disproportionate discipline of African American learners: Reducing school suspensions and expulsions. *Exceptional Children*, *66*, 381-391.
- Verdugo, R. R. (2002). Race-ethnicity, social class, and zero-tolerance policies: The cultural and structural wars. *Education and Urban Society*, *35*, 50-76.
- Wadsby, M., & Svedin, C. G. (1996). Academic achievement in children of divorce. *Journal of School Psychology*, *34*, 325-336.
- Welch, K., & Payne, A. A. (2010). Racial threat and punitive school discipline. *Social Problems*, *57*, 25-48.
- Western, B. (2006). *Punishment and Inequality in America*. New York: Russell Sage Foundation.
- Wike, T., & Fraser, M. W. (2009). School shootings: Making sense of the senseless. *Aggression and Violent Behavior*, *14*, 162-169.