

Race, Poverty, and Exclusionary School Security: An Empirical Analysis of U.S. Elementary, Middle, and High Schools

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Abstract

As violence and crime within and around U.S. schools has drawn increased attention to school security, police, surveillance cameras, and other measures have grown commonplace at public schools. Social scientists commonly voice concern that exclusionary security measures are most common in schools attended by poor and non-White students, yet there is little empirical basis for assessing the extent of differential exposure, as we lack research on how exclusionary measures are distributed relative to school and student characteristics. To address this gap in the research, we use nationally representative school-level data from the School Survey on Crime and Safety to consider the security measures employed in elementary, middle, and high schools. Results indicate that while security measures are ubiquitous in U.S. high schools, those considered more exclusionary are concentrated in elementary, middle, and high schools attended by non-White and/or poorer students.

Keywords

school security, racial inequality, class inequality, governing through crime

The tragic shooting deaths of 20 children and 6 adult staff members at Sandy Hook Elementary School in 2012 have drawn renewed attention to the issue of school security. Although debates rage about gun control, arming school personnel, and other proposals for reducing violence in schools and beyond, it is important for social science research to consider the scope and significance of extensive school security interventions already in place. Indeed, schools across the United States have incorporated a host of security mechanisms over the past decade. According to the National Center for Education Statistics, in the 2009–2010 school year, 60% of public high schools conducted random searches using drug-sniffing police dogs, 84% used surveillance cameras, and 12% used metal

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detectors to screen students. In a 2009 nationally representative survey of students aged 12–18, 68% reported that a security guard or police officer was assigned to their school (Robers, Zhang, Truman, & Snyder, 2012).

Although the proliferation of school security measures is clear, we know little about variation in specific security strategies across school contexts, including how exposure to more protective (i.e., inclusive) versus punitive (exclusive) measures relates to school, student, and community characteristics. Indeed, while public and political discourse on school security tends to emphasize student and staff safety, many social scientists have voiced concern that more exclusionary measures may do less to protect students than to compromise educational environments and outcomes (e.g., Fabelo et al., 2011; Hirschfield, 2008, 2010; Kupchik, 2010; Nolan, 2011). Insofar as more protective inclusionary measures are concentrated in schools serving White and affluent student populations, and punitive exclusionary measures distinguish schools attended by the poor and non-Whites, as these critics contend, the race and class stratification of school security measures may work to perpetuate inequality (Hirschfield, 2010; Irwin, Davidson, & Hall-Sanchez, 2013; Wacquant, 2001). The existing research makes it abundantly clear that racial/ethnic minority youth are significantly more likely to be subjected to school punishment than White students (e.g., Eitle & Eitle, 2004; Fabelo et al., 2011; Skiba, Michael, Nardo, & Peterson, 2000; Skiba et al., 2006), though these effects are seen at the individual level, largely due to biased perceptions of school staff (e.g. Bowditch, 1993; Downey & Pribesh, 2004; Ferguson, 2000; Morris, 2005), and leave us with little understanding of variations in policies across schools.

As we discuss further below, researchers point out that school security may reflect an ethos of exclusion, an ethos of inclusion, or some combination of both (Hirschfield, 2010). Exclusionary measures uniquely aim to disengage offending students from school. Exclusionary measures may also repel other students, facilitating broader disintegration of larger student bodies from such school environments, and socioeconomic mainstreams (e.g. labor markets) connected to education. In 2011, the Los Angeles Unified School District and its police department acknowledged this exclusion when vowing to roll back punitive measures. “The old rules were part of a get-tough philosophy that included truancy sweeps, \$250 tickets and mandatory court appearances that could result in jail time for parents,” the Los Angeles Times reports. The district faced mounting concern that the measures “diminish time in school and increase the dropout rate” (Blume, 2011).

Although research finds that firm rule enforcement is important both for student safety and for academic outcomes (Arum & Velez, 2012), a growing body of literature illustrates how an overreliance on *exclusionary* security may contribute to school disengagement and social disintegration in several interrelated ways. Exclusionary security measures deteriorate the school social climate (Ayers, Dohrn, & Ayers, 2001; Brady, Balmer, & Phenix, 2007; Lewis, Romi, Katz, & Qui, 2008; Lyons & Drew, 2006; Webber, 2003), which in turn can lead to reduced student academic performance and increased misbehavior (Gottfredson, 2001; Gottfredson, Gottfredson, Payne, & Gottfredson, 2005; Welsh, 2003). These adverse impacts on learning environments and experiences may increase exposure to further school discipline and the likelihood of dislocation and exclusion from school through suspension, dropout, and expulsion (Ayers et al., 2001; Fabelo et al., 2011; Hirschfield, 2008; Kim, Losen, & Hewitt, 2010; Skiba et al., 2000, 2006). At its extreme, this may yield what some call a “school to prison pipeline,” where students are diverted from schools to courts and carceral institutions via the criminalization of school misconduct (Kim et al., 2010; Wald & Losen, 2003). If distinct to schools attended by non-White and poorer students, the denial of opportunities for educational and social growth that result from exclusionary security would contribute to the reproduction of inequality.

These concerns raise a host of empirical and policy questions that cannot be addressed in their entirety here. Instead, we take on a narrower but fundamental question raised by the suggestion that exclusionary school security measures are contributing to the reproduction of inequality: the

question of whether in fact more exclusionary security measures—as others have defined them—are concentrated in schools serving non-White and poorer students. Although this assertion has taken on an almost common sense quality at times, the scarcity of empirical research on school-level differences across the United States leaves the answer unclear. Further, among existing studies of school-level differences, there is disagreement over whether the rise of punitiveness in school discipline is a general phenomenon, reflective of a new “law and order governmentality,” or concentrated in schools serving otherwise marginalized populations (see Irwin et al., 2013).

Drawing on summary data or small samples of schools, some researchers emphasize a general trend in the expansion of school security that is facilitated by federal policy and funding. In response to federal mandates in the 1990s, for example, some form of “zero tolerance” is seemingly universal in U.S. public high schools (Simon, 2007; also see Kupchik, 2010). Further, federal subsidies for state and local expenditures on school security have contributed to apparently widespread adoption of school police officers (usually referred to as school resource officers, or SROs), surveillance cameras, and other measures (see Hirschfield, 2010). In a qualitative comparison of four high schools, two of which consist of mostly middle-class White students and two primarily comprising lower income youth of color, Kupchik (2009, 2010) reports that all of the schools adopted similar harsh, exclusive strategies mirroring criminal justice practices. Although noting some differences in disciplinary practices, he finds a governmentality of security and punishment encompassing schools across social strata. However, researchers also suggest that the expansion of school security has been more selective, targeting certain schools and students with more punitive exclusionary measures, potentially reproducing inequality in educational and associated outcomes (Hirschfield, 2008; Irwin et al., 2013; Payne & Welch, 2010; Wacquant, 2001; Welch & Payne, 2010, 2012).

Very few studies offer empirical tests of whether student social status (measured at the school level) relates to school punishment. In one set of studies, Payne and Welch (2010) and Welch and Payne (2010, 2012) analyze a nationally representative sample of public middle schools and high schools to determine whether the race and socioeconomic status of students is related to the harshness of school punishment. They find that harsh punishment (measured as a scale) is indeed more likely, and mild or restorative punishment less likely, in schools with larger proportions of Black and (to a lesser extent) poor students (Welch & Payne, 2010); that schools using one type of harsh punishment tend to use others as well (Payne & Welch, 2010); and that the proportion of Black students relates to the use of specific punishment practices such as expulsion, suspension, and in-school suspension (Welch & Payne, 2012). These studies greatly improve our understanding of punitiveness in schools, but they focus solely on punishments rather than on security measures intended to prevent student misconduct and keep youth safe. Security practices are important to study as well. Interests in securing schools are longstanding and widespread and have gained renewed focus in the post-Newtown debate on school safety. Beyond research on punishment (e.g., expulsion) in response to specific acts of misconduct, we must also examine the built environments of school security (e.g., the presence or absence of police, lining up to pass through metal detectors, etc.), including their potentially inclusive and exclusive dynamics.

In a recent analysis, Irwin, Davidson, and Hall-Sanchez (2013) use nationally representative data (the SSOCS survey, which we use as well) to assess whether race and poverty relate to both punishment and security across schools. Here punishment is operationalized in two ways, using measures of various punishments given in response to misbehavior and the number of crimes schools report to the police; security is measured by the number of weekly hours worked at the school by either security guard or law enforcement personnel and by the number of surveillance mechanisms employed by each school. They find that the presence of racial/ethnic minority youth is positively related to the use of school punishments, crimes reported to the police, and security or police presence but not to surveillance practices. Schools with more poor youth use *fewer* punishments, rely *less* on security guards and police, and report *fewer* crimes to the police but have more surveillance practices.

Irwin et al.'s (2013) analyses offer the first test of how student body racial composition and poverty rates shape security practices. Yet one result of the breadth of their work—they consider both punishment and security, across all school levels, and in ways that aggregate distinct security practices—is that we still do not know how race and poverty relate to the use of specific security strategies, including more exclusive or inclusive approaches. Our analyses follow this study closely and build on it in a particular direction. Rather than considering both punishment and security, we focus particularly on school security in order to disentangle the use (and predictors of use) of distinctly exclusionary security measures, and we consider how these relationships vary across school levels. This is an important component to our research, since prior work tends to be based either on high schools only (e.g., Kupchik, 2010; Lyons & Drew, 2006) or on multiple levels of schools aggregated together (e.g., Payne & Welch, 2010; Welch & Payne, 2010, 2012).

This article thus builds on prior research with an empirical analysis of how race and poverty relate to exposure to exclusive school security measures across U.S. elementary, middle, and high schools. We employ Hirschfield's (2008, 2010) distinction between an "inclusionary versus exclusionary ethos" of school security to assess how race and socioeconomic composition of students relates to the presence of exclusionary security measures, net of school and community crime, and other contextual factors likely to influence the school security environment. We draw on two theoretical frameworks, offering opposing predictions of differential exposure to exclusive school security: a social reproduction perspective, anticipating disparate or selective exclusion, and a "governing everyone through crime" perspective (see also Irwin et al., 2013).

Background: Securing the American School

Public and political discourse present the investment in school security as an essential response to high levels of crime within and around schools, using previous incidents and the threat of future crime and violence to justify new security and disciplinary measures (see Brooks, Schiraldi, & Ziegenberg, 2000; Burns & Crawford, 1999; Cornell, 2006; Lawrence & Mueller, 2003; Simon, 2007). Federal, state, and local government efforts have responded to concerns about school crime with a range of interventions. Since 2000, Congress has committed around US\$15 million per year to the national "Secure Our Schools" (SOS) Act, an amendment to the Omnibus Crime Control and Safe Streets Act of 1968. SOS is a voluntary, matching grant program where municipalities apply for federal funding for school safety grants administered under the Community-Oriented Policing Services (COPS) program. SOS grants can be used for metal detectors, locks, lighting, deterrent measures, security assessments, and security training, with the federal government paying half of the cost of security measures and state or local government providing remaining portions. Similar funding has been provided through the Department of Justice, the Department of Education, the Department of Homeland Security, and state governments (Casella, 2006; Lohman & Shephard, 2006; U.S. Congress 2000; U.S. Department of Justice 2011).

Often framed as school and student "accountability" programs, these interventions encourage aggressive security monitoring, classification, and intervention and contribute to broader efforts to reorganize school systems. The 1994 Safe and Drug-free Schools Act, for example, encouraged criminal classification of school misconduct and increased school surveillance by tying block grants to demonstrate school crime problems and encouraging that funds be used to enhance surveillance (Simon, 2007). The No Child Left Behind Act of 2001 includes a provision requiring states to work with school districts to identify "persistently dangerous schools" and mandates criminal referrals for students in possession of a weapon (Hirschfield, 2010; Monahan & Torres, 2010). Local officials have moved to exert greater control over schools identified as underperforming and unsafe. For example, in New York City, authority over school safety agents was shifted from educational

officials to the New York Police Department, increasing the aggressiveness of policing and likelihood of criminal sanctions in the event of school misconduct (Hirschfield, 2010).

Despite the political framing of school security as a response to rampant violence and crime, school crime has been decreasing over the past 20 years (Robers et al., 2012). Sociologists and criminologists have instead theorized the rise in school security to be a consequence of phenomena such as racial threat (see Payne & Welch, 2010; Welch & Payne, 2010, 2012), neoliberal strategies for governing students (see Hirschfield, 2008; Kupchik & Monahan, 2006), reduced moral authority and fear of litigation among schools (Arum, 2003), and broader contemporary strategies for managing risk and insecurity, such as “governing through crime” (Simon, 2007). Research into the application of these strategies within schools finds that they are often excessive; though firm and fair discipline and security are necessary to protect students and maintain order, contemporary practices in some schools are far more rigid and punitive than is required for safe and orderly environments (see Nolan, 2011). Moreover, because they exclude larger numbers of students than necessary from opportunities for educational and social growth, while punishing youth rather than addressing the underlying reasons for student misbehavior, contemporary school security may have adverse consequences for educational environments and outcomes (e.g., Casella, 2001; Kupchik, 2010; Nolan, 2011). If these detrimental effects are more pronounced in schools attended by poorer and non-White students, as is widely expected but empirically unclear, they may contribute to the reproduction of social inequality.

Inclusive Versus Exclusive Security

In *Visions of Social Control* (1985), Stanley Cohen distinguishes between exclusionary and inclusionary efforts to regulate deviance that incorporates both crime prevention and punishment practices. These modes are distinguished by how they regard the deviant, their intervention strategies and purposes, and likely consequences. Exclusionary approaches are more explicit and punitive, directed at those perceived to be hard-core, intractable deviants, and intend to diminish or eliminate social ties. Inclusionary approaches are more diffuse, benign, and therapeutic, intended for those perceived to be near-normal or marginally deviant, and to reabsorb by maintaining and even strengthening social ties. Although severe, formal and stigmatizing sanctions of capital punishment, imprisonment, and physical restraint represent an ethos of exclusion, the inclusive ethos manifests in less visible and less stigmatizing controls such as “discreet surveillance, data banks, [and] crime prevention through environmental design” (Cohen, 1985, p. 221). Cohen anticipates a future of deeply bifurcated or double-edged social control: a soft edge of “indefinite inclusion” or societal absorption maintained by therapeutic and technological controls over personal conduct and social space, contrasting with a hard edge of “rigid exclusion,” maintained through the punitive classification and control of outcasts (Cohen, 1985, pp. 232–233; also see Foucault, 1977; Young, 1999).

The Exclusionary Ethos and U.S. School Security. Hirschfield’s recent research has explored this “ethos of inclusion versus exclusion” in contemporary school security. By disentangling the mix of school security measures that might at first appear to be very similar, we can appreciate how even subtle distinctions in measures have different social meanings or consequences, and these distinctions are important to assessing the potential disintegrative effect of inequality in school security. Like Cohen, he ties the inclusive/exclusive distinction to the *function* of the control measure as much as to its particular form. Most importantly, inclusive security measures function to “reduce or obscure differences among subjects,” while exclusionary school security measures function to “magnify deviant subjects for the purpose of exploiting or purging them” (p. 45). Inclusionary security measures—such as surveillance cameras—involve an often imperceptible yet constant form of discipline, “encourag[ing] students to direct their bodies toward normal, orderly, and productive

action,” without singling out particular students as deviants requiring control. By contrast, exclusionary security measures, such as metal detectors and drug-sniffing dogs, more clearly communicate and facilitate interests in identifying and removing deviant (rule-breaking or trouble-making) students. Principals with an inclusionary ethos are “natural foes of metal detectors,” since the technology embodies exclusion, treating students with criminal suspicion, and erecting physical and possible legal barriers between students and learning environments (Hirschfield, 2010, p. 46).

Within the broad classifications of exclusionary and inclusionary measures, there are varieties of practice or application that may enhance or diminish this function as a mechanism of inclusion or exclusion. For example, although Hirschfield (2010) characterizes metal detectors as “inherently anti-inclusionary,” he notes that the degree to which they facilitate magnification and exclusion of deviant subjects depends somewhat on their use, including whether they are operated by school personnel or police officers in the school. “Since the police who operate metal detectors cannot be disciplined by school officials and are encouraged to make and tally arrests and seizures of contraband,” he writes (p. 43), they not only escalate the likely severity of sanctions for misconduct (i.e., a detected weapon) but have used the metal detector screening as an occasion to conduct more extensive surveillance (e.g., frisks) to identify “problem students” and arrest them for uncooperative behavior (e.g., stepping out of line or refusing to be searched). Similarly, while a drug-sniffing dog is an explicit crime-detecting measure intended to identify and purge offenders, and in this sense exclusive, this would be a less stigmatizing and exclusionary measure if utilized discreetly—for instance, during class periods—than if on regular patrol, stationed prominently in the cafeteria, or alongside a metal detector.

To be sure, every security measure has the potential to be employed with elements of an exclusive or inclusive ethos and is ambiguous in this sense. However, there is variable ambiguity. Some security measures, such as locked gates and on-campus police, are highly ambiguous with respect to their exclusive or inclusive function. Locked gates prevent movement in and out of school environments, and campus protection and control purposes are difficult to disentangle. Campus security officers and police are similarly ambiguous (Hirschfield, 2010). Although surveillance cameras, locked gates, and even school police can be assimilated into the culture of the school, and employed to prioritize discipline and inclusion rather than classification and exclusion, the metal detector and drug-sniffing dog are less ambiguous interventions, clearly intended to detect criminal offenses and offenders. The clearer exclusive functions of these measures (i.e., weapon and drug crime detection) provide a basis for empirically assessing differential exposure to potentially disintegrative school security.

Competing Views of How Race and Poverty Relate to Exclusive Security

Our primary interest is to address the debate over whether the rise in exclusive school security is generalized, reflective of a broad “law and order governmentality,” or concentrated in schools serving poor, non-White, or otherwise marginalized populations. We explain each of these perspectives subsequently.

Social Reproduction and School Security. On one hand, a social reproduction perspective on inequality in education (Bourdieu & Passeron, 1990; Bowles & Gintis, 1976) leads us to expect greater exposure of poor and non-White students to exclusive security. Bourdieu and Passeron (1990) have argued that schools reinforce the hierarchy of cultural capital that delineates among students. Schools teach and reward middle-class norms while negatively appraising styles and mannerisms that differ. This practice rewards middle-class students and punishes others by conflating cultural capital with academic ability, thus reproducing and rationalizing existing social inequality by making divisions among groups appear to be the product only of hard work and intelligence (for a thorough review see Lewis, 2006). To the extent that youth with less cultural capital are perceived as

security threats, with more exclusive security directed their way, a social reproduction perspective may help explain differential exposure to an inclusionary ethos of school security and its potential consequences.

Consistent with this perspective, Hirschfield's research on the inclusionary and exclusionary ethos of school security makes frequent reference to racial and socioeconomic inequality. "While suburban schools are hardly immune from criminalization," Hirschfield (2008, p. 84) writes, "criminalization in these contexts takes on more diluted or hybridized forms owing to the primacy of competing ideals like consumer choice and individual freedom." He partially attributes the exclusive security faced by poorer and non-White youth to unique pressures of underresourced, underperforming, and overcrowded schools.

Loic Wacquant's description of exclusive security in public schools in the "hyperghetto" similarly contends that select schools reproduce marginality by emulating prisons and treating marginalized youth as criminals, habituating their acceptance of "custody and control":

Public schools in the hyperghetto have . . . deteriorated to the point where they operate in the manner of *institutions of confinement* whose primary mission is not to educate but to ensure "custody and control." . . . The carceral atmosphere of schools and the constant presence of armed guards in uniform in the lobbies, corridors, cafeterias, and playgrounds of their establishment habituates the children of the hyperghetto to the demeanor, tactics, and interactive style of the correctional officers many of them are bound to encounter shortly after their school days are over. (Wacquant, 2001, pp. 94–95, italics in original)

Here, marginalized youth are presumed to be young criminals and treated as such through exposure to the hard edge of exclusive practices (e.g., police surveillance and metal detectors), while youth with social, political, and cultural capital are presumed to be near normal and habituated for social absorption in their selective exposure to inclusive security regimes.

Whatever the underlying social, economic, and political sources be, disparity in exposure to exclusive school security can have profound consequences on students' social mobility, since suspension, expulsion, and arrest limit future educational, employment, and other prospects (e.g., Davies & Tanner, 2003; Fabelo et al., 2011; Hjalmarsson, 2008; Sweeten, 2006; Western, 2006). Existing studies of differential exposure typically rely on limited data to establish these claims. Although bivariate statistics do illustrate some of these relationships (such as the greater likelihood of surveillance cameras at schools in suburbs and towns; see Robers et al., 2012, table 20.2), more rigorous empirical analyses are needed to understand the extent of racial and socioeconomic disparity in exposure to exclusive security.

Governing Everyone Through Crime. In contrast, the relatively few studies looking at security measures across schools have found inconsistent and limited evidence of social reproduction through the use of exclusive security. In recent studies of school discipline and security in four high schools located in two different states, for example, Kupchik (2009, 2010) has questioned the applicability of the social reproduction thesis to comparisons between schools. As we discussed at the outset, he finds that though socioeconomic and racial/ethnic compositions of student bodies significantly shape how security measures are employed, the high schools he studied serving lower income youth of color and those serving middle-class White youth have all adopted similar harsh, exclusive discipline and security strategies that mirror criminal justice practices. As a result, he argues that there are more similarities in these schools' security strategies than the social reproduction perspective suggests.

This finding relates a central point in Jonathan Simon's (2007) recent book, *Governing Through Crime*, that the logic of crime control has become a dominating paradigm used to govern insecurity and risk. One can see the influence of governing through crime in nationwide policies, such as a requirement of zero-tolerance policies as well as financial incentives to schools for police and other

security measures, such as those provided in the “Secure Our Schools” Act of 2000 (see U.S. Congress 2000; U.S. Department of Justice 2011). Simon notes that governing through crime has influenced rules and practices in schools (and elsewhere) across social strata, as “The very real violence of a few schools concentrated in zones of hardened poverty and social disadvantage has provided a ‘truth’ of school crime that circulates across whole school systems” (Simon, 2007: 210; see also Lyons & Drew, 2006). Thus, this perspective leads us to predict that student body race and poverty will have little effect on the distribution of security mechanisms, since exclusionary security has spread throughout schools of all social strata. Given the lack of empirical research on national, school-level differences in school security, it remains difficult to adjudicate between the differential exposure (e.g., social reproduction) and more generalized “governing through crime” arguments; our analyses offer an initial test of these competing theoretical perspectives.

School Security Environments: Conceptual and Grade-Level Distinctions. As we stated earlier, our analyses differ from the few prior studies to consider school-level variation in school discipline and security in two important ways. First, although the work of Payne and Welch (2010) and Welch & Payne (2010, 2012) contribute to our understanding of how race and poverty relate to school punishment, they do not consider security practices within schools. Irwin et al. (2013) add this piece to the literature, but in a fairly broad way, using summary measures of security guards (i.e., their measure of personnel includes both security guards and police, and their measure of surveillance is a count summing the use of varying technologies and practices) rather than examination of specific security practices. There is a crucial distinction between punishment practices (e.g., suspension or expulsion), which are typically policy or otherwise normative responses to specific incidents, and how built environments vary according to school security measures in place. The distinction between security and punishment are often blurred in school security research, as scholars assess the overall security and discipline climate of schools (e.g., Kupchik, 2010; Lyons & Drew, 2006; Nolan, 2011) at the expense of analytical clarity. Certainly, both are important but distinct contexts of inclusionary or exclusionary control. Here, we are particularly interested in the notion that all students—whether subject to punishment or not—can be adversely affected by an ethos of exclusion, represented by the normal presence of exclusive school security measures.

Second, we contribute to existing research by considering variation in security measures among elementary, middle, and high schools. Prior research finds that the differential treatment of students along socioeconomic and racial lines can begin early, at the very start of elementary school (see Kozol, 1991; Rist, 1973; Weis, 1992), yet the literature on school security focuses mostly on high schools (e.g., Casella, 2001; Lyons & Drew, 2006; Nolan, 2011) or occasionally on middle schools as well (e.g., Ferguson, 2000; Payne & Welch, 2010; Welch & Payne, 2010, 2012), and in one case on all levels of school but without distinguishing between them (Irwin et al., 2013). It is important that we extend our analyses to consider different educational levels, as the relationship between race, poverty, and exclusive school security may differ across school level. This could be the case if older youth are viewed as more dangerous than younger students, or if the nationalization and federalization of exclusive security has had distinct consequences for high school environments, making exclusive security common to U.S. high schools, irrespective of school and student characteristics. If exclusive security is more selectively employed at lower grade levels, racialized and classist constructions of danger or budget pressures in poor districts might shape these decisions, making race and poverty more predictive of exposure for younger students.

Methods

To consider the variation in school security practices across schools, we analyze the restricted version of the 2005–2006 School Survey on Crime and Safety (SSOCS). The SSOCS is a nationally

Table 1. Summary Statistics.

	Mean	Std. Dev.	Range
Region			
Midwest	0.26	0.44	0–1
South	0.24	0.43	0–1
West	0.32	0.47	0–1
Northeast	0.18	0.39	0–1
School characteristics			
Nontraditional school	0.07	0.25	0–1
Number of students (ln)	6.47	0.79	1.39–8.54
Neighborhood crime	1.30	0.58	1–3
Location: urban	0.26	0.44	0–1
Location: urban fringe	0.38	0.49	0–1
Location: town	0.10	0.30	0–1
Location: rural	0.26	0.44	0–1
Parent involvement in school	2.55	0.77	1–4
Disorder	4.03	0.55	1.5–5
Violence (ln)	2.17	1.25	0–5.97
Thefts (ln)	1.26	1.14	0–4.39
Weapons offenses (ln)	0.77	0.77	0–3.43
Alcohol/drugs (ln)	1.02	1.14	0–4.44
Vandalisms (ln)	1.02	0.97	0–4.11
Threats (ln)	1.49	1.35	0–5.86
Attendance (ln)	4.54	0.20	0.69–4.62
Percent ESL (ln)	1.40	1.23	0–4.62
Percent special education (ln)	2.54	0.58	0–4.62
Percent low test takers (ln)	2.30	0.94	0–4.62
Percent racial/ethnic minority (ln)	3.03	1.21	0–4.62
Percent free/reduced lunch (ln)	3.45	0.94	0–4.62
Dependent variables			
Drug-sniffing dogs	0.38	0.49	0–1
Metal detectors	0.09	0.28	0–1
Police officer	0.38	0.49	0–1
Surveillance cameras	0.55	0.50	0–1

Note. Std. dev = standard deviation.

representative survey of school administrators managed by the National Center for Education Statistics on behalf of the Federal Department of Education's Institute of Education Statistics and conducted by the U.S. Census Bureau. The 2005–2006 survey was the third such survey distributed since 1999–2000. Respondents were selected using a stratified sampling design, with a sampling frame of all regular public schools (and charter schools) from the National Center for Education Statistics' Common Core of Data Public School universe file, resulting in a sample of 2,720¹ schools. In Table 1, we describe the characteristics of this sample; for additional details about the sampling process, see Bauer, Tang, Derby, Parmer, and Swaim (2007).

Dependent Variables

The SSOCS data are well suited for our research question because they include a series of questions about the use of both inclusionary and exclusionary security measures. We focus in particular on two security measures that we described earlier as exclusionary: drug-sniffing police dogs and metal

detectors; one that we described earlier as inclusionary: surveillance cameras; and one that we described earlier as fairly ambiguous: SROs. We consider the likelihood that the responding school administrator answered affirmatively to questions about whether each of these four security measures is used in his or her school. Specifically, we constructed dichotomous variables to represent the use of random checks using drug-sniffing dogs, whether either students or visitors must pass through metal detectors (including random metal detector checks on students), the use of surveillance cameras, and whether there is a full-time school resource officer or law enforcement officer.²

Independent Variables

In order to test whether schools serving racial/ethnic minority and lower income youth are more likely to use exclusionary security mechanisms and less likely to use inclusionary security mechanisms, our primary independent variables are the racial/ethnic minority and low-income composition of schools' student bodies, as reported by the school administrator. To measure race/ethnicity, we include the percentage of the enrolled students who are racial/ethnic minorities. Our primary measure of poverty comes from the percentage of students who receive free or reduced-price lunch.³

As controls, we also include variables for the percentage of students who have limited proficiency in English, who are enrolled in special education curriculum, and who score below the 15th percentile on standardized tests, since each may be an alternate measure of marginalization or subordinate status (see Noguera, 2003). English proficiency is likely related to immigration status and may denote a lack of political capital (Levine-Rasky, 2009), while large numbers of poor standardized test performers are a liability for schools in an era of accountability via high-stakes testing (see Lawrence, 2006; Simmons, 2007).⁴

We include a variable indicating parental involvement in school academics and social events, since it both relates to student body socioeconomic status (Lareau, 2003) and has the potential to shape school security practices (Kupchik, 2010; Noguera, 2003). This variable is the mean response to a series of questions including the percentage of parents who participate in open house or back to school night, participate in teacher/parent conferences, participate in subject area events, and volunteer at the school. Each of these original variables is coded along a 4-point scale (1 = 0–25%, 2 = 26–50%, 3 = 52–75%, 4 = 76–100%), and the resulting index achieved high interitem reliability (Cronbach's $\alpha = .82$).

We control for the extent to which school security varies across geographic regions. To the extent regions maintain distinct "cultures of control" (Barker, 2009; Lynch, 2009), school security may vary according to the regional locations of schools. Although neither individual schools nor states are identifiable in the SSOCS, the data set includes a variable for region. Using this, we include dummy variables for midwest, south, and west regions, which allow us to compare school security in these regions relative to schools in the northeastern United States.

Another important potential predictor of the school security environment is the actual problem of school misbehavior as well as crime and delinquency in the school and surrounding community (Devine, 1996; Nolan, 2011). To consider whether schools with greater crime problems might implement varying security measures to deal with these problems, we include a number of variables related to levels of student and school area crime and disorder. Each of these variables measures the total number of incidents of a certain type of misbehavior or crime: violence (including the total number of rapes, sexual batteries, robberies with weapon, robberies without weapon, attacks with weapon, and attacks without weapon), weapons (number of possession of firearms and possession of knives/sharp objects), alcohol and drugs (number of possession or use of alcohol and distribution of drugs), and threats (number of threats with a weapon and threats of attack without weapon). We also include the reported number of incidents of theft/larceny and vandalism. Additionally, we computed an index measuring school disorder; this index is the mean of responses to a series of questions about the perceived frequency (on a scale of 1–5 that was recoded so that higher values now reflect

greater frequency) of the following problems: student racial tensions, student bullying, student sexual harassment of student, verbal abuse of teachers, student disorder in classroom, student acts of disrespect, student gang activities, and student cult or extremist activities (Cronbach's $\alpha = .81$). Further, we control for administrators' perceptions of the level of crime in the neighborhood surrounding each school, along a scale of 1 to 3, recoded so that greater values reflect higher perceived levels of crime. As a final control for perception of student behaviors, we also include the reported average daily attendance rate.

Importantly, we recognize the inability of these student behavior variables to capture a causal mechanism. Since these data are cross-sectional, we are unable to interpret whether reported incidence of violence, for example, are objective indicators of behavior or the result of school sensitivity to these issues. It is likely that school concerns and policies related to security are incident generating themselves, somewhat irrespective of actual student or community youth misbehavior. Rather than assessing causal mechanisms, these variables offer two contributions to our analyses: (1) as control variables, they help isolate how student social status is related to security practices net of actual or perceived misbehavior and crime rates and (2) if significant, they will suggest the need for additional research to consider a causal mechanisms using data more properly suited to the task.

Other control variables include the size of the student population, whether the school is a nontraditional (magnet or charter) public school, and location (we include dummy variables for urban fringe, town, and rural, with urban excluded as the contrast). School population size is relevant here because it may shape levels of student victimization (see Gottfredson & DiPietro, 2011) and thus indirectly influence security measures. We control for nontraditional schools because of their demonstrated organizational differences in how they approach their educational mission (see Renzulli, Parrott, & Beattie, 2011), and we control for location in order to control for the intense level of security that has been documented in urban public schools (e.g., Mukherjee, 2007; Nolan, 2011).

Several of our continuous independent variables, such as student population and percentage of students in special education curriculum, are positively skewed and introduce the potential problem of influential outliers. To reduce this potential problem, we use the natural logarithm of each continuous variable⁵; we do this for all independent variables other than the dummy variables (region, location, and nontraditional school), our one ordinal variable (crime at school), and the indexes computed as means (parental involvement and school disorder).

Analytic Strategy

Because each of our four dependent variables is dichotomous, we use logistic regression to estimate the odds of a school using each security practice. Given the many differences one might find across different levels of schooling, we consider elementary schools, middle schools, and high schools separately; we exclude schools that identify as being combined grade levels ($n = 140$). After estimating our primary models, we then further explore these results by estimating the predicted probability of different categories of schools using each security practice; here, we manipulate the percentage of students who receive free or reduced-price lunch while keeping all other variables at their means.

All analyses are performed using survey-specific commands in Stata/SE 11.1. The models are adjusted in two ways. One is that we use the weighting variable provided in the data set to accommodate for unequal probability of selection in the survey sample; the provided weight handicaps each case's score to reflect the probability of sample selection (see Bauer, Tang, Derby, Parmer, & Swaim, 2007). The second is that since we compute models separately for each level of school, we specify the subpopulation included in each analysis. This option within Stata accommodates subpopulations while still accurately computing standard errors; without specifying the subpopulation, the standard errors might be biased, since the survey design structure assumed within the Stata survey command would no longer be valid.

Prior to releasing the data set, the National Center for Education Statistics imputes missing values for most variables (for details, see Bauer et al., 2007). The only variable in our analyses for which missing data are not imputed is the percentage of racial/ethnic minority students in each school. We hesitate to impute missing values for this, since it is central to our analysis and we do not wish to distort the data in any way and also because missing data on this variable represent a relatively limited problem. Across school levels, there are a total of 70 cases with missing data on this variable, which we exclude from the analysis. After excluding these cases and the combined grade-level schools, our sample includes $n = 700$ elementary schools, $n = 920$ middle schools, and $n = 890$ high schools (total sample $n = 2,510$).⁶

Results

Logistic Regression Models

The results of the logistic regression models are presented in Tables 2 and 3; Table 2 shows results for exclusionary security measures (metal detectors and drug-sniffing dogs) and Table 3 for inclusionary security (surveillance cameras) and ambiguous security (police officers). Each table lists the exponentiated coefficients, $\text{Exp}(B)$, or the difference in the odds of a school having each security mechanism associated with an increase of one in each independent variable, separately for each school grade level. As we described earlier, we are particularly interested in how school-level race/ethnicity and socioeconomic status shape the likelihood of schools relying on exclusionary (drug-sniffing dogs, metal detectors), inclusionary (surveillance cameras), and ambiguous (police) security measures. These results are highlighted using boldface type: significant positive results for the exclusionary measures would support the social reproduction perspective of discrepancies across race and class groups, while nonsignificant results would support the “governing everyone through crime” perspective.

Our results for student body race/ethnicity illustrate the importance of considering distinct security measures separately, since we find a consistent and significant effect for the presence of metal detectors but not for other security practice. On one hand, regarding most school security measures, we see that schools with various populations of minority youth have implemented similarly extensive security regimes. This finding suggests some convergence, in that extensive school security systems are found across social strata, and diverse students have grown subject to similar forms of control (see Kupchik, 2010; Simon, 2007). On the other hand, schools with larger proportions of racial/ethnic minorities are significantly more likely than others to have metal detectors, an exclusionary security mechanism. Importantly, this is true for each level of school (elementary, middle, and high) and after controlling for both locations in an urban setting and area crime rates. Since we also control for weapons offenses at schools, this result seems to be driven by assumptions of threat rather than observations, that is, school officials may respond to often implicit associations between racial/ethnic minorities, violence, and use of weapons (Eberhardt, Goff, Purdie, & Davies, 2004).

We do find results that contradict a social reproduction perspective as well, though they are less consistent or robust than the relationship between race/ethnicity and metal detectors. High schools with larger proportions of minorities are less likely to use drug-sniffing dogs, and middle schools with larger non-White populations are more likely to have surveillance cameras (an inclusionary measure), though neither of these effects is significant at other school levels.

Our measure of poverty, the percentage of students receiving free/reduced lunch, is significant and positive in 6 of the 12 models. Higher percentages of poor students are predictive of greater odds that schools have drug-sniffing dogs in each school level, supporting the hypothesis that students serving poorer youth are more likely to rely on exclusionary security. The percentage of poor students also relates positively to the odds of metal detectors in middle schools, again in support of this

Table 2. Logistic Regression Models Predicting Odds of Exclusionary Security Practices, by School Level (Exp(B)).

	Metal Detectors			Drug-Sniffing Dogs		
	Elem.	Middle	High	Elem.	Middle	High
Region						
Midwest	78.570***	1.296	0.399*	3.932	3.364***	3.670***
South	11.920	1.747	1.513	0.193	5.467***	6.496***
West	4.685	1.387	0.355*	1.921	4.552***	4.562***
Nontraditional school Students (ln)	0.497	1.816	0.836	0.548	0.632	0.369**
Location						
Urban fringe	0.724	0.495*	0.369**	13.82*	1.411	1.682*
Town	1.454	0.697	0.340*	18.26*	1.892*	2.669**
Rural	0.741	0.905	0.301**	83.990***	2.790***	2.233**
Parent involvement	0.242*	0.667	1.108	1.120	0.854	1.042
Neighborhood crime	1.109	1.910**	1.790*	0.494	0.944	0.456***
Crime/misbehavior						
Disorder (ln)	10.54*	1.971**	1.690*	0.324	0.895	0.952
Violence (ln)	1.215	0.945	0.877	0.659	0.874	0.812
Thefts (ln)	1.700	0.889	1.039	2.891*	1.140	0.962
Weapons (ln)	2.556*	1.061	1.312	0.842	0.642***	0.954
Alcohol/drugs (ln)	5.231*	0.943	1.078	6.810*	1.420**	0.984
Vandalisms (ln)	2.004	0.968	1.210	0.344*	0.924	1.178
Threats (ln)	0.878	0.981	0.815	0.729	1.030	0.972
Avg. daily attendance (ln)	1.369	1.315	1.750	4.654	129.200	1.079
% ESL (ln)	0.791	0.619***	0.664**	0.788	1.042	0.806*
% Special education (ln)	0.621	1.413	1.220	0.688	1.040	1.367
% Low test scores (ln)	0.767	0.963	1.166	1.135	0.898	0.944
% Racial/ethnic minority (ln)	10.420*	2.309**	1.814**	1.554	0.866	0.719**
% Free/reduced lunch (ln)	0.418	2.039*	1.717	4.401**	1.374*	1.719***
F	3.891	6.485	6.339	3.527	5.339	6.237

Note. Elem = elementary.

* $p < .05$. ** $p < .01$. *** $p < .001$.

perspective. And, we find that police, a measure we categorize as neither inclusionary nor exclusionary, are more likely in both elementary and middle schools with more poor youth. These findings suggest that general trends toward policing in schools and criminalizing student misconduct may be unique structural features of schools serving the poorest youth and communities.

Importantly, our results suggest that the effect of socioeconomic status is greatest and most consistently found *early* in the educational process, since the effect of poverty status is most consistently observed at the elementary or middle school levels rather than in high schools. When it comes to young children, poverty appears to have particular salience as a marker of the need for exclusionary school security and a law enforcement presence. This also suggests that the experience of policing in school and criminalization of student misconduct begins earlier for students attending schools with concentrated poverty, potentially contributing to short- and long-term disparities in educational achievement. We interpret this result to suggest that in elementary and middle schools, where youth are less fearsome as a group (compared to high schoolers) and most security measures are less commonly found than in high schools, poverty is taken to indicate dangerousness. Resulting differential exposure to exclusionary security is an added and perhaps compounding component of the concentrated disadvantage in these schools.

Table 3. Logistic Regression Models Predicting Odds of Inclusionary and Ambiguous Security Practices, by School Level (Exp(B)).

	Inclusionary: Surveillance Cameras			Ambiguous: Police Officers		
	Elem.	Middle	High	Elem.	Middle	High
Region						
Midwest	0.792	0.950	1.370	0.375	1.079	0.966
South	0.553*	0.761	1.453	0.612	2.327**	4.624***
West	0.218***	0.503**	1.107	0.321*	0.996	1.327
Nontraditional school	1.388	0.809	0.509	1.211	0.868	1.698
Students (ln)	1.516*	1.386	2.349***	1.595	3.379***	2.804***
Location						
Urban fringe	1.091	1.432	1.516	1.246	0.497***	0.780
Town	1.061	1.548	1.655	0.896	0.622	1.084
Rural	0.739	1.738*	1.295	1.042	0.712	0.946
Parent involvement	0.791	0.861	0.988	1.857	1.106	1.434*
Neighborhood crime	1.288	0.987	1.175	0.752	0.929	1.317
Crime/Misbehavior						
Disorder (ln)	0.813	1.312	0.693	0.690	1.058	0.938
Violence (ln)	0.956	1.037	1.124	0.936	1.087	1.030
Thefts (ln)	1.048	0.999	1.004	1.132	1.134	1.255*
Weapons (ln)	1.448*	0.999	1.017	2.072**	0.829	1.487*
Alcohol/drugs (ln)	0.582	1.178	0.738*	0.444	1.131	1.103
Vandalisms (ln)	0.840	0.958	0.820	0.821	0.904	1.070
Threats (ln)	0.850	1.007	0.955	0.881	0.983	0.929
Avg. daily attendance (ln)	1.179	0.805	1.010	1.548	0.450	1.021
% ESL (ln)	0.992	0.782**	0.932	1.288	1.094	1.029
% Special education (ln)	0.992	1.300	1.115	1.640	1.102	1.057
% Low test scores (ln)	0.962	1.067	1.160	0.879	1.117	1.014
% Racial/ethnic minority (ln)	1.073	1.247*	1.055	0.934	1.173	1.137
% Free/reduced lunch (ln)	0.924	1.092	1.208	2.255**	1.408*	1.096
F	2.527	2.049	3.008	2.393	6.182	8.469

Note. Elem = elementary.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Results for our measure of parental involvement are interesting as well. High schools with higher levels of parental involvement in academic and social events (open houses, parent/teacher conferences, subject area events, and volunteer efforts) are more likely to have a police officer. However, elementary schools with higher levels of parental involvement in academic and social events are less likely to have metal detectors. Assuming that greater parental involvement provides some parental capacity to shape school policy (see Blankenau & Leeper, 2003), this result suggests that parents may advocate for police officers in schools as protection for their children (see Casella, 2001) while resisting the more exclusionary use of metal detectors.⁷

The percentage of youth who are in English as a second language class is negatively related to the odds of having cameras in middle schools, metal detectors in middle school and high school, and drug-sniffing dogs in high schools. The fact that this variable predicts reduced odds of having cameras, metal detectors, and drug-sniffing dogs suggests that schools with large concentrations of immigrants are less likely than others to implement both inclusionary and exclusionary security measures. As we discuss subsequently, additional data that allows us to disentangle different minority groups would allow us to explore this result in greater depth. The percentage of students who are in special education classes and the percentage who score low on standardized tests are weak predictors of school security measures.

School size and location also relate to security measures. Larger schools are more likely to have each of the security mechanisms among at least one school level, presumably because larger schools can be more chaotic and difficult to manage. Region is an important consideration in criminal punishments, broadly, and it appears to be an important but inconsistent determinant of school security as well. Schools in each region other than the northeast—and especially in the south—are more likely than those in the northeast to use police officers and drug-sniffing dogs. It appears that school security mirrors broader punishment and social control trends, with more exclusionary and punitive practices in the south (e.g. Lynch, 2009). Urbanicity matters as well, even while controlling for race/ethnicity and socioeconomic status of student bodies. Urban high schools are more likely than high schools in urban fringe areas, towns, and rural areas to have metal detectors; in conjunction with the robust results linking race/ethnicity to the presence of metal detectors, this result suggests that urban high schools hosting large populations of youth of color are distinguished by the presence of metal detectors but not other forms of school security. Yet urban schools are *less* likely than other schools at each level to have drug-sniffing dogs, our other measure of exclusionary security, with rural schools especially likely to use this security measure.

Average daily attendance is not significantly related to any security measure, and the various measures of crime and misbehavior are only weakly and inconsistently related to school security. Perceived crime in the school neighborhood is positively related to metal detectors in middle and high schools and negatively related to drug-sniffing dogs in high schools. Incidents of student violence do not significantly relate to any school security measure. Weapon incidents are related to increased odds of surveillance cameras in elementary schools, police in elementary and high schools, and metal detectors in elementary schools but decreased odds of drug-sniffing dogs in middle schools. Alcohol and drug use is a significant predictor of the use metal detectors in elementary schools, of drug-sniffing dogs in elementary and middle schools, and of reduced odds of having surveillance cameras in high school. Finally, our disorder scale, which consists of problems such as student racial tensions, bullying sexual harassment, and others, significantly predicts increased odds of the presence of metal detectors at each school level. Although we are unable to test causal relationships with these variables, due to the problem of specifying temporal order, we nonetheless find it interesting that there are few consistent relationships between reported levels of students' criminal behaviors and the adoption of school security measures. These results clearly mirror prior suggestions that school security is a response to perceived, not actual, threats in school (see Cornell, 2006).

Predictions for School Categories of Free/Reduced-Price Lunch

Our primary independent variable related to poverty, the percentage of students receiving free/reduced-price lunch, was found to have a consistent and robust effect on various school security practices, particularly among elementary and middle schools. To better illustrate the effect of poverty, we predict the probability of different categories of elementary and middle schools having each security mechanism. While holding all other variables at their means, we estimate the probability of elementary and middle schools having each security practice under three conditions: (a) concentrated advantage: 10% receiving free or reduced-price lunch, (b) integration: 50% receiving free or reduced-price lunch, and (c) concentrated disadvantage: 90% receiving free or reduced-price lunch. These predicted probabilities are graphed in Figure 1 for elementary schools and in Figure 2 for middle schools. They show a fairly consistent pattern whereby security measures, particularly exclusionary security, are more likely in conditions of concentrated disadvantage. This pattern is clear regarding drug-sniffing dogs in both school levels, and metal detectors in middle schools, though there are too few metal detectors in elementary schools overall (2.5%) for any pattern to be clear. We also see that surveillance cameras, an inclusionary measure, are more common in elementary schools of concentrated advantage, while officers are more common in schools with concentrated disadvantage.

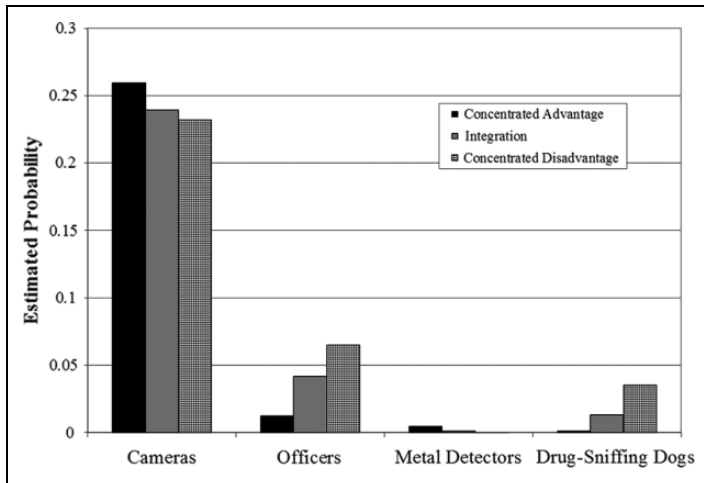


Figure 1. Estimated probabilities of elementary schools using security practices, by category of school.

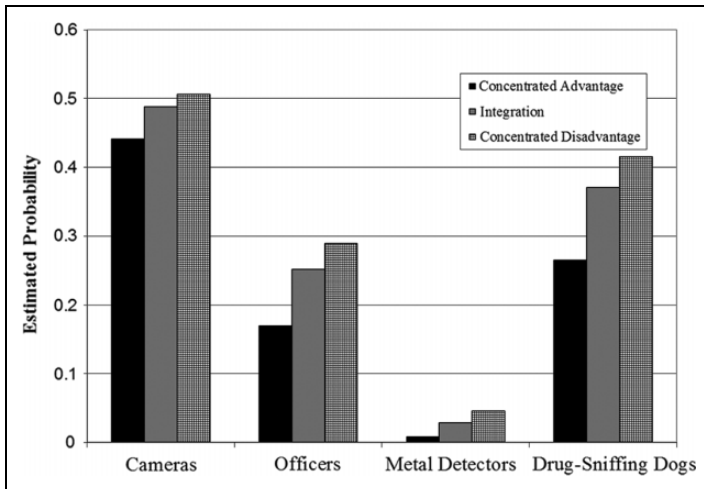


Figure 2. Estimated probabilities of middle schools using security practices, by category of school.

Figures 1 and 2 illustrate the importance of considering cumulative effects on the link between student characteristics and types of school security measures. If one were to consider only regression coefficients for student socioeconomic status, as prior research tends to do, then important substantive effects of concentrated advantage and disadvantage might go overlooked. Instead, by distinguishing schools according to thresholds of socioeconomic stratification, we identify an apparent buffering effect of concentrated advantage, and the preponderance of exclusionary security measures in elementary and middle schools of concentrated poverty.

Discussion and Conclusions

By analyzing nationally representative data from public schools, we provide an empirical examination of how school and student body characteristics relate to the use of inclusionary and exclusionary

school security measures. Our results generally support prior arguments linking race/ethnicity and poverty to school-level punishment policies (see Irwin et al., 2013; Payne & Welch, 2010; Welch & Payne, 2010, 2012) while extending this literature in important and new ways by considering particular security measures and differences across grade levels. Consistent with Cohen (1985) and Hirschfield's (2008, 2010) application of Cohen's work to school security, we find that exclusionary measures (metal detectors, drug-sniffing dogs) are more prevalent at schools with more racial/ethnic minority and low-income students, while inclusionary social control is more common at more advantaged schools (see also Irwin et al., 2013).

With regard to student body race/ethnicity, our results clearly demonstrate that the specific exclusionary security measure of metal detectors is more common in schools serving large numbers of youth of color. Consistent with the social reproduction perspective, this result suggests that racial/ethnic minority youth are exposed at greater rates to a practice that seeks to identify offending youth and divert them to the criminal justice system. With regard to poverty, we find that exclusionary security measures are more common among elementary and middle schools but not high schools. Thus, poverty seems to mark younger children as potential threats requiring exclusionary control measures, and this differential exposure to disintegrative security appears to compound the concentrations of disadvantage in such schools.

Although these relationships are clear in our analyses, it is also clear that the alternate theoretical framework, of governing everyone through crime, has some validity as well. Overall, there is no consistent effect of student body race/ethnicity regarding security measures other than metal detectors, and little effect of student poverty on security measures among high schools. This suggests that other than the use of metal detectors, both inclusionary and exclusionary security mechanisms are part of the social fabric of high schools across social strata. The fact that we find support for both of these perspectives highlights the need to consider the context of school security rather than offering generalizations. As we stated earlier, most research on this topic considers only high schools and/or fails to distinguish between distinct security measures, and as a result the complex relationships between race/ethnicity, poverty, and school security are either overlooked or important distinctions are muddled.

Given the importance of educational experiences in socializing youth to future social roles and as a credentializing process, we are particularly concerned about how the distribution of school security measures may contribute to existing social inequality. Consistent with social reproduction arguments discussed earlier, our findings suggest that potentially "disintegrative" effects of exclusionary school security are concentrated in schools serving more minority and poor students, which may institutionalize racial and socioeconomic inequality in American education and, ultimately, American society. The observed relationship between concentrated poverty and security at earlier grade levels is especially troubling, as it suggests that disintegrative effects of school security are distinctly borne by already marginalized students at relatively young ages. The extent to which divergent security practices impact the long-term social, academic, and professional outcomes of youth awaits future research and will hopefully be considered in developing future school security policy.

Our findings not only support but also extend prior research in various ways while also raising questions that await further research. Our school-level findings mirror individual-level research on school discipline, suggesting that teachers and school administrators rely on racist and classist stereotypes of threat in interpreting student behavior, while raising additional concerns about institutionalized race and socioeconomic inequality in American education. Unfortunately, our data offer limited insight into the underlying bases of these developments. Although recent attitudinal and cognitive research on the race and social class politics of public punitiveness (e.g., Pickett & Chiricos, 2012; Unnever & Cullen, 2010) may help explain the distribution of exclusive school security policies,⁸ without data on attitudinal measures we are unable to empirically assess how the adoption of various school security measures is related to racial and socioeconomic animus generally.

The observed prominence of exclusive school security in schools with more poor students and youth of color is also likely a reflection of a number of structural conditions, including the federalization of crime control. Lisa Miller (2008) has argued that the federalization and nationalization of crime control has elevated the crime control agenda of more influential constituencies while marginalizing the poor and non-Whites. Federal funding for school security may illustrate this influence, and future research should examine the role of federal financial incentives in shaping the implementation of inclusionary versus exclusionary school security measures. Earlier, we refer to the Secure Our Schools Act of 2000, which provided funding for measures such as metal detectors, locks, lighting, security assessments, and security training. It is unclear whether the availability of federal funding for these measures has encouraged financially unstable school districts to adopt these measures in greater numbers than other schools who may have the means to resist such narrowly targeted financial incentives. Since schools receive their funding through complex and varying combinations of local, state, and federal sources, we are unable to consider funding source in our analyses. Yet we recognize that this public funding is a clear illustration of governing through crime and suspect that it has an important role in both the proliferation and the unequal distribution of school security measures.

The current study also lays the groundwork for continuing investigation into the use of police officers across varying school contexts. As we discussed earlier, police officers in schools can take on both inclusion- and exclusion-focused roles. Despite their ambiguity, we include the use of police officers here because they are a high-profile and common response to widespread anxieties about school safety. Our results show that they are more commonly placed in elementary and middle schools with higher percentages of low-income youth, though it is not clear exactly what this means, or whether they assume similar functions in schools across social strata.⁹

In addition to extending analyses to consider long-term consequences of school security, future research can also address a number of limitations to the current study. One such limitation, which we discussed earlier, is our inability to analyze whether student crime and disorder has a causal role in the implementation of security measures. The use of cross-sectional data may also obscure the extent to which race/ethnicity or poverty may have complex, nonrecursive relationships with security practices; we are unable to detect, for example, whether White or middle-class families leave schools after metal detectors or drug-sniffing dogs appear. Our data are also limited in detail on the application of security measures, for example, how metal detectors and officers are actually employed, which limits our precision in operationalizing the inclusionary/exclusionary distinction. Another limitation is that we do not assess the impact of community-level factors, such as poverty, unemployment, and the politics of school governance (e.g., local vs. central control), which may contribute to the extent to which students are perceived as dangerous (see Hirschfield, 2008). A number of additional variables would benefit future studies, especially measures related to race and socioeconomic stratification (e.g., non-White representation among school authorities; educational attainment of parents) and more detailed race/ethnicity information, which would allow us to consider different racial/ethnic groups distinctly (see Peguero, 2011) and would provide greater insight into the relationship between race, poverty, and exclusionary school security. Furthermore, although we set out to assess the extent of differential exposure to exclusive security, it is crucial that future research examines the actual implications of this inequality, including their suspected disintegrative effects.

A final limitation of our analyses concerns our interpretation of the pronounced effect of race and poverty among elementary and middle schools. Earlier we interpret this result to suggest that race and poverty are taken to be particularly salient markers of potential criminality among younger children; but an alternate possibility is that the poor youth and youth of color who receive the most attention from school disciplinarians drop out or are expelled before reaching high school. As a result, perhaps the more modest results regarding high schools are due to a selection process instead.

We are now decades into a national, federally subsidized investment in school security measures. Contemporary schools evidence elaborate security systems, somewhat irrespective of region, student status characteristics, and level of education, consistent with this historical development. Our findings confirm while also specifying previous suggestions that race and socioeconomic inequalities relate to the use of exclusionary security measures. Although further research is needed to confirm whether or not and how such disparities in school security translate into the reproduction of inequality, the prominence of security systems across high schools in particular suggests some convergence rather than bifurcation (Cohen, 1985) in the experience of social control and raises a more general social reproduction question. That is, how has this era of unprecedented policing, surveillance, and other crime control strategies within American schools socialized this generation of students? How does this new school security environment affect school safety and, as significantly, educational achievement or aspiration? Has criminal justice oriented security rendered schooling a disintegrative experience? These questions are important to consider for all students but perhaps most of all those whose formative early educational experiences are in elementary and middle schools marked not only by concentrations of poverty but also by police officers, metal detectors, and drug-sniffing dogs.

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Notes

1. As required by the Institute of Education Statistics, all reports of sample sizes are rounded to the nearest 10 throughout this article.
2. The term "school resource officer" (SRO) is used to describe police officers who are stationed in schools. SROs usually wear their full police uniforms and carry firearms as do their counterparts outside of schools (see Kupchik, 2010). It is important to note that unlike Irwin et al. (2013), we consider only law enforcement officers here rather than security guards to better focus on a security practice that has been a focus of policy debate.
3. We realize this variable may not be completely accurate, if lower income families do not know about the lunch program or refuse to apply for help with lunch purchases or if other families misrepresent their income to receive reduced-price lunches. However, this is by far the best measure of socioeconomic status included in the data, and it is consistent with prior research (e.g., Payne & Welch, 2010; Welch & Payne, 2010).
4. In earlier models, we introduced interaction terms of Percentage Non-White \times Percentage Free/Reduced lunch to capture the potential intersection of race and poverty in predicting school security but excluded these from the final model because they did not improve model fit. We also introduced variables measuring the square of percentage non-White and of percentage free/reduced lunch to consider whether either variable

- relates to school security in a curvilinear way, but excluded these from the final model as well because they did not consistently improve the model fit.
5. We use the natural log of each continuous variable +1, in order to remove values of 0 (which are undefined when taking a logarithm).
 6. Collinearity diagnostics suggested that multicollinearity is not a problem in our models; the average variance inflation factor (VIF) is 1.69 and the highest value is 2.41.
 7. To consider whether the impact of parents in particular on school security depends on student demographics, in preliminary analyses we included interaction terms using our Parental Involvement Scale \times Percentage Minority and Parental Involvement \times Percentage Receiving Free/Reduced Lunch. These interaction terms did not improve the fit of our models, and thus we did not retain them.
 8. Payne and Welch 2010 and Welch and Payne (2010, 2012) consider percentages of racial/ethnic minorities to indicate racial threat, though unlike Pickett and Chiricos (2012) and Unnever and Cullen (2010), they do not include measures of racial animus or other racialized attitudes.
 9. In supplemental analyses, we find that among schools with a full-time police presence, the percentage of youth receiving free/reduced-price lunch is positively related to the use of exclusionary security measures (metal detectors, drug-sniffing dogs, or both), suggesting that police are used in conjunction with exclusionary security in schools serving poor youth. Although we do not discuss these analyses here for the sake of parsimony, they suggest fruitful future inquiries into the use of varying combinations of security measures.

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