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Schools and Crime

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Abstract

This review focuses on recent advancements along two lines of criminological inquiry. The first examines how schools unintentionally influence off-campus delinquency, especially through their effects on social bonds and strain. The second examines the effects of intensified school punishment and policing on both school safety and off-campus offending. The key variables of interest to both fields of inquiry are fundamentally endogenous, which has led to some theoretical stagnation in the field. However, studies that employ quasi-experimental methods have improved causal inferences regarding the effects of additional schooling (especially in good schools) and the criminogenic effects of school exclusion. The effects of school failure and educational expectations are ripe for similar analyses. A rigorous interdisciplinary research agenda is proposed to assess the impact of decriminalizing school discipline and expanding therapeutic and restorative disciplinary alternatives to better inform the efforts underway across the United States to dismantle the school-to-prison pipeline while maintaining school safety.



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INTRODUCTION

By high school graduation, American children typically spend about fifteen thousand hours in school during school hours. In addition, many devote a substantial portion of their after-school time to school work and school-based extracurricular activities. School children spend so much time in school (about one-quarter of total waking hours over 13 years) that they are more likely to be victimized by crime on campus than off campus (Zhang et al. 2016).

Because of children's intensive and prolonged school exposure, along with schools' fundamental importance for socialization, social sorting, and social control, it is unsurprising that several major theoretical traditions within criminology assign critical importance to schools in shaping criminal orientations and behavior during youth and adulthood. For example, criminologists have posited that school experiences influence the development of social bonds (Hirschi 1969), deviant peer groups and subcultures (Cohen 1955), deviant reputations and identities (Mowen & Brent 2016, Rios 2011), social capital (Hoffmann & Dufur 2008), and general strain (Agnew 2001). In addition, the credentials, opportunities, habits, and skills that schools, including those in correctional settings, provide can have a decisive influence on adult labor- and marriage-market prospects, which, in turn, influence long-term criminal trajectories (Laub & Sampson 2003).

The central purpose of the present endeavor is to review recent studies (most published in the past five years) of the impact of normal school practices and experiences on illegal behavior. This review lends special attention to the fertile area within criminology that addresses the social and behavioral consequences of school punishment and policing (Kupchik 2016). In that connection, this review surveys just a few acres of the vast criminological terrain that focuses on schools as sites of crime and crime control. School violence, in particular, has attracted so much scholarly attention that a quarterly journal has been dedicated to that topic since 2002. A search of Google Scholar reveals that 19,200 articles include the phrase "school shootings." Whereas this field has undoubtedly and profoundly advanced our understanding of the antecedents and consequences of school crime and of effective school-based crime and bullying prevention, readers must look elsewhere for careful reviews of these vast literatures (Cook et al. 2010, Schwartz et al. 2016, Welsh & Harding 2015).

Criminologists who study school crime share a crowded stage with scholars from myriad fields, including school psychology, public health, education, and social work, but criminologists are the leading experts on the school-crime crackdown. Spurred by an increase in school violence beginning in the late 1980s and a rash of school rampage shootings during the late 1990s and to accommodate various cultural, social, economic, and political shifts, public school policy makers and administrators across America's diverse social landscape launched a full-scale offensive on school crime (Hirschfield 2008, Simon 2007). Although this nationwide crackdown assumed heterogeneous forms, it typically entailed more frequent and longer exclusionary sanctions, mostly in response to minor infractions (Fabelo et al. 2011, Kupchik 2016), and schools' importation of law enforcement personnel and accompanying tactics and tools (e.g., cameras, dogs, searches), including legal sanctions. Various criminologists and other researchers have theorized this criminalization of school discipline (Hirschfield 2008), explained variation in schools' exclusionary practices (Hirschfield 2009a, Welch & Payne 2010), and conducted interview-based and ethnographic studies of schools' transformed disciplinary and security regimes (Kupchik 2010, Nolan 2011, Shedd 2015).

Thus, this review concerns studies on the direct and indirect impact of everyday school practices and experiences on crime. Studies within this scope address at least one of the following questions:

1. How do students' school enrollment, attitudes, performance, and experiences affect illegal behavior outside of school?

2. How do the everyday practices associated with the school-crime crackdown affect outcomes related to school safety?
3. How do crackdown practices affect crime outside of school over the short and long term?

SCHOOL ATTITUDES, PERFORMANCE, AND EXPERIENCES

The foremost concern of adherents of particular theoretical perspectives is not whether schooling affects illegal behavior but rather the particular processes through which these effects occur. Theories afford differential emphasis to, for example, school failure, educational expectations, engagement, school bonds, and grouping practices. Unfortunately, for several reasons, conventional criminological research has provided few convincing answers regarding which of these factors, if any, affect delinquency and crime. First, many of these factors are highly correlated and mutually reinforcing and, therefore, difficult to disentangle. Some concepts in the field such as engagement/effort and school bonds overlap (Hirschfield & Gasper 2010). School failure may increase delinquency via strain (Agnew 2001) through damaging school bonds and increasing exposure to deviant classmates. Such complexities pose formidable obstacles to the valid assignment of causal sequence and weights pursuant to tests of a particular theory. That said, school achievement by no means ensures school attachment, and vice versa (Hirschfield & Gasper 2010), which permits estimation of their independent effects (Felson & Staff 2006, Savolainen et al. 2012).

The second reason so few criminologists have definitively established the impact of school factors on delinquency is that most studies, especially those that rely upon cross-sectional analyses, fail to adequately address selection bias. Some scholars have suggested that both school problems and delinquency are products of underlying stable traits such as unconventionality (Donovan et al. 1991), low self-control (Felson & Staff 2006), antisocial propensities, and low intelligence. Several studies have sought to measure the influence of school-related factors, net of the influence of stable traits, by controlling for these traits and/or prior misbehavior (Felson & Staff 2006, Savolainen et al. 2012). Such studies have reported a net effect on subsequent delinquency of teacher-reported effort (Felson & Staff 2006), academic performance and engagement (Henry et al. 2012, Savolainen et al. 2012), school attachment (Crosnoe 2006, Savolainen et al. 2012), and attachment to teachers (Crosnoe 2006, Felson & Staff 2006). These studies also reported effects on delinquency of educational aspirations (Crosnoe 2006), school commitment (Felson & Staff 2006), and grades (Felson & Staff 2006) that were non-significant in full models. At the same time, most of these studies failed to control for at least one major time-varying characteristic that could explain both changes in focal school factors and deviant behavior, including exposure to deviant peers, family dysfunction and supervision, and disruptive life events (e.g., death of a loved one, a residential move).

The third obstacle to reliable estimation of the effects of school factors on crime is that school problems and delinquency may be reciprocally related. Scholars have drawn upon various criminological theories, including social bonding and labeling, to posit that delinquency may lead to negative social reactions at school, which can reduce bonding to and engagement within the institution (Kirk & Sampson 2013). Accordingly, several studies observed that delinquency and substance use negatively predict educational expectations, effort, school commitment, teacher attachment, grades, high school graduation, and college attendance (Liljeberg et al. 2011, McCluskey et al. 2002, McLeod et al. 2012, Siennick & Staff 2009, Ward & Williams 2015). Rigorous quasi-experimental analyses suggested that one negative social reaction to delinquency in particular—juvenile justice involvement—can have large, adverse, and lasting effects on educational attainment (Hirschfield 2009b, Kirk & Sampson 2013). Reciprocal causation can lead researchers to inflate or misinterpret their estimates of the effects of school factors on subsequent delinquency.

Three relatively recent studies attempted to overcome these obstacles to the reliable estimation of the effects of school performance, attitudes, and experiences by distinguishing among multiple school-related predictors, controlling for an expansive set of stable and time-varying covariates (e.g., peer delinquency, disruptive life events, and parental attachment and supervision), and accounting for the possible bi-directionality of the schooling/delinquency relationship. The first study (Hirschfield & Gasper 2010) estimated the effects of three dimensions of school engagement (emotional, behavioral, and cognitive) on delinquency, and vice versa, among a large sample of inner-city Chicago elementary school students (grades 5 to 8). Whereas the effects of emotional and cognitive engagement were small or ambiguous, the effects of behavioral engagement were pronounced. Behavioral engagement, which was measured as time spent on homework relative to leisure activities, strongly predicted delinquency, even when the effects of prior delinquency, the other dimensions of engagement, and reciprocal causation were taken into account. No effects of delinquency on behavioral or emotional engagement were evident in either cross-lagged or simultaneous equation models but delinquency did negatively predict cognitive engagement. The study was unable to discern whether homework time reduced delinquency by diverting time and energy from deviant pursuits (Hirschi 1969) or by reducing the strains associated with schooling (e.g., school failure).

The second study (Hoffmann et al. 2013) extended the work of Hirschfield & Gasper (2010) by disentangling, using a national sample, the effects of school attachment and school failure (GPA) on delinquency (and vice versa) during grades 7 to 11. Although no measure of time spent on homework was included, school effort and having trouble with homework were included in a separate measure of attention. Cross-lagged models suggested that GPA affects subsequent delinquency, independently of prior delinquency, school attachment, attention, and an array of other covariates (e.g., family and peer factors, self-control). The study found no evidence that school attachment independently affects delinquency or that delinquency independently predicts subsequent grades or school attachment.

The third study (Wang & Fredricks 2014), following Hirschfield & Gasper (2010), also distinguished between three dimensions of school engagement. But it included a more valid indicator of cognitive engagement and a multidimensional indicator of behavioral engagement. By focusing on schools in a single county, Wang & Fredricks (2014), more so than Hoffmann et al. (2013), were able to reduce confounding contextual variation. Like Hoffmann et al. (2013), the authors aimed to disentangle the reciprocal influences of school attachment (i.e., emotional engagement) and delinquency but did so across three survey waves. Unlike its two predecessors, this study found evidence for reciprocal causation. They found that not only did behavioral and emotional engagement reduce subsequent delinquency and substance use, net of grades and other covariates, but that these problem behaviors each reduced subsequent behavioral and emotional engagement (albeit more modestly) while increasing dropout. Unfortunately, considerations of overall model fit prevented them from also estimating whether grades affect problem behavior and vice versa.

Although these studies earnestly addressed threats to internal validity, the threat of selection bias cannot be ruled out. For example, disruptive life events, changes in parental supervision, and exposure to deviant peers could each account for the estimated effect of school engagement on subsequent delinquency and substance use that Wang & Fredricks (2014) reported. Criminological studies of the impact of school dropout on delinquency are similarly hampered by the essential endogeneity of the high school termination decision and the fact that, generally speaking, dropping out is the culmination of a long-term, gradual process of disengagement at least as much as it is a discrete event (see Cook et al. 2010 for a review of related studies).

Thus, the school attitudes, behaviors, and experiences measured in observational studies are inevitably endogenous to some omitted or inadequately measured factors that may influence

delinquency. For this reason, some researchers have sought to measure the impact of exogenous sources of variation in school experiences that are also exogenous to prior delinquency. Only such designs can provide reasonable assurances that estimated associations of school factors and subsequent delinquency are causal in nature.

The work of various economists strongly suggests that, in the aggregate, attending school longer and obtaining educational credentials reduce criminal behavior. One seemingly exogenous source of variation in school length and attainment is variation in state laws regarding the age at which youth are legally permitted to drop out of school. A recent study (Bell et al. 2016) found that for African Americans, longer compulsory schooling is consistently associated with higher educational attainment. On that basis, they estimated the causal impact of years of schooling using compulsory schooling laws as an instrument for years of schooling. They find that among blacks, additional years of school significantly reduced individual risk of incarceration. Additional analyses of census commuter zones using arrest data estimated stronger effects of the minimum dropout age on juvenile arrest rates, suggesting an incapacitation effect (or what some criminologists would call a school bonding effect). However, a higher dropout age also reduced adult arrest rates, suggesting that the credentials, opportunities, and/or skills that additional schooling affords also reduce crime (or that variation in compulsory education laws is endogenous to factors that affect arrest rates).

The protective influence of credentials and/or skills found some modest support in a recent study of the impact of educational degree attainment on the risk of arrest (Amin et al. 2016). The study exploited random assignment to Job Corps as an exogenous source of variation in degree attainment. The study found overall intent-to-treat effects on arrest for males and non-Hispanics, but analyses that attempted to disentangle the effect of degree attainment from the effects of the non-educational services that Job Corps provides (e.g., job placement assistance) could estimate only non-parametric bounds on the crime-reducing effects of degree attainment. The lower bounds are impressive for some groups (73.7% of the treatment effect for males), but the analyses cannot rule out null effects of degree attainment. Nonetheless, the authors were confident that they identified a “true causal effect” because their “results are fairly consistent with the previous estimates of the causal effect of education on crime based on compulsory schooling laws” (Amin et al., p. 272). Their results also accord with prior research that found larger arrest-reduction effects of degree attainment for African Americans and for those earning a high school diploma (as opposed to a GED). The larger impact of degree attainment on arrest for African Americans likely reflects the relatively bleak labor-market prospects for high school dropouts in urban America (Pettit & Western 2004), along with the elevated police scrutiny directed at this population (Na 2017, Rios 2011).

Although it is important to learn whether prolonging exposure to or receiving a degree from an average school affects criminal behavior, studies of the effects of specific school experiences bring more to bear on criminological theory. For example, if an extra year in a high-achieving school reduces crime but an extra year in a low-performing school has no effect (or even increases crime), this suggests that schools do not reduce crime merely by incapacitating students. Fortunately, natural experiments that involved assigning students to certain schools based on lottery numbers provide some window into the effects of particular school characteristics and experiences. In their wide-ranging review, Cook et al. (2010) described two studies by economists on the effects of being randomly selected (via lotteries) to attend a high-achieving school in Chicago or a high-quality school in Mecklenburg, North Carolina, respectively. Taken together, these studies suggest that having a special opportunity to attend a high-performing middle or high school strongly and durably prevents arrests (both minor and serious) and incarceration, especially for African-American students. School closures offer additional natural experiments by which researchers can assess the impact of a mostly exogenous source of temporal variation in school characteristics.

The theoretical contribution of such studies is still imprecise, however, because exactly what good schools provide (e.g., elevated academic success and expectations, school bonding, positive peer influences, etc.) that makes the difference to students remains unclear.

Unfortunately, exogenous sources of variation in school failure and school bonding, the school-related predictors that draw the most criminological attention, are elusive. The closest approximation with respect to school failure may be the arbitrary cutoffs used for placement and retention decisions based on grades or high-stakes tests. If grade retention affects delinquency, then a discontinuity in the regression of delinquency on the determinative scores should be apparent at the cutoff score. Two working papers used a regression discontinuity design to assess the impact of grade retention on crime (Depew & Eren 2015, Díaz et al. 2016). The studies' observed effects of grade retention on delinquency are in opposing directions. This inconsistency could reflect the disparate settings (Louisiana and Chile) and the differential prevalence of and methods for addressing score manipulation by teachers who seek to prevent the retention of youth approaching the thresholds, or the fact that the effects of grade retention are variable, complex, and contingent. In some cases, grade retention likely reduces delinquency by making school work less frustrating, reducing negative peer influences, and adding another year of schooling. In other cases, grade retention likely increases delinquency by imparting stigmatizing labels, souring school attitudes, prompting school changes, and weakening positive peer influences. Thus, grade retention effects, assuming they exist, do not adjudicate between criminological theories.

THE SCHOOL-CRIME CRACKDOWN AND SCHOOL SAFETY

This review has focused on how schools, through their normal operations, can inadvertently influence crime off-campus. But how do schools affect crime when they deliberately aim to do so? Kupchik (2016) recently estimated that American schools annually spend \$14.8 billion on school safety personnel and practices. Of particular relevance here are the effects of school punishment and policing because they are embedded in the normal operations of most public schools, are posited to affect crime both on- and off-campus, and have been the target of much recent controversy, policy reform, and criminological research.

As mentioned, schools across America's diverse social landscape launched a sustained crackdown on school crime and misbehavior. This crackdown began in the late 1980s in response to rising violence in urban schools. During the 1990s, the crackdown spread throughout the country with the help of a string of well-publicized school shooting rampages, federal laws incentivizing exclusionary punishments and police involvement with respect to weapons and drug offenses committed in schools, and the introduction of federal funds for school resource officers (SROs) (Simon 2007). With pressure and support from federal and state laws along with fearful parents and teachers, schools invested in an expanded school security and disciplinary infrastructure and gradually ratcheted up penalties for both minor and major school transgressions. Police presence in schools mushroomed (14,337 full-time SROs in 2003 compared to approximately 100 police stationed in schools in the late 1970s), which increased the number of school-based arrests, tickets, and court referrals (Fabelo et al. 2011, Hirschfield & Celinska 2011, Owens 2017). In addition, under increasingly rigid and harsh disciplinary codes, out-of-school suspensions (OSS) reached 3.3 million (6.9%) in 2006 compared to 1.7 million (3.7%) in 1974 (Kupchik 2016).

Criminologists have shaped scholarly, policy, and public discourse about the impact of this crackdown on school safety and crime more broadly. First, criminologists have provided theoretical and empirical grounds for skepticism regarding the effectiveness of many of the measures associated with the crackdown. Rates of both self-reported student violent and property crime victimization at school fell dramatically from 1993 through 2000 and continued to slide, albeit more gradually and

inconsistently, over the next decade (Zhang et al. 2016). However, criminological commentators mostly downplayed any role of the concurrent intensification of school punishment and policing in these declines. One reason for their skepticism is that the declines in on-campus victimization run almost perfectly parallel with trends in off-campus youth victimization (Zhang et al. 2016), which suggests that the reductions reflect broader crime trends rooted outside of schools.

The Impact of Crackdown Practices on School Social Climate

The second reason for skepticism is that the school-crime crackdown may undermine the school social climates that are known to be associated with safe schools. Recent research, extending a long line of criminological research on the impact of school climate (for a recent review, see Welsh & Harding 2015), found that an authoritative school climate, which combines strict but fair rule enforcement with a high level of support (e.g., warmth, praise, and respect) (Cornell et al. 2015), promoted school safety. The relationship between authoritative discipline and peer victimization was even robust to controls for the level of school security (Gerlinger & Wo 2016). The practices associated with the school-crime crackdown (henceforth, crackdown practices) tend to enhance only one dimension of authoritative climates. They appear to increase the certainty and consistency of punishment in response to misconduct (Theriot 2009). However, they may actually reduce supportive staff-student interaction because the crackdown transfers disciplinary responsibility from the staff who are best equipped to provide such support (e.g., teachers, social workers, and guidance counselors) to disciplinary and security staff, who are relatively ill-equipped to provide effective support, rewards, and guidance (Devine 1996, Na & Gottfredson 2013, Nolan 2011). In addition, a zero-tolerance approach expressly discounts the underlying reasons for misbehavior, making it harder to prescribe enhanced support to troubled students (Kupchik 2010).

Crackdown practices may also undermine authoritative discipline through diminishing perceived fairness. Research suggests that a diminished sense of disciplinary fairness can weaken children's trust in school authorities and, in turn, increase rule-breaking and bullying (Kupchik 2016, Yeager et al. 2017). Transferring discretion to uniform disciplinary codes and trained law enforcers may indeed diminish perceived favoritism (Kupchik & Ellis 2008), forging a positive correlation between perceived strictness and perceived fairness (Cornell et al. 2015). However, fair discipline also entails punishments commensurate with offense severity (i.e., proportionality)—a principle that zero tolerance expressly violates—and disciplinary procedures that uphold the dignity and rights of the individual (i.e., procedural justice). Ethnographic research has documented that, in some schools, harsh disciplinary practices and conventional modes of school policing leave students feeling voiceless and vulnerable to violations of their rights and dignity (Bracy 2011, Kupchik 2010, Nolan 2011, Shedd 2015), and some perceive considerable favoritism in the implementation of zero tolerance (McNeal & Dunbar 2010).

Such observations have fostered concern among some criminologists that the uneven intensification of school punishment and policing diminishes another strong predictor of safe schools—a caring and cohesive community (Hirschfield & Celinska 2011, Payne et al. 2003). Na & Gottfredson (2013) posited that school police could have corrosive effects on perceptions of a caring and cohesive community if their presence signals mistrust and teachers' abdication of responsibility for addressing behavioral issues. If invigorated formal social controls supplant informal social controls, marked improvements in school safety are unlikely. Kirk (2009) found that attending schools high in collective efficacy—operationalized as cohesion, trust, and shared expectation for social control among teachers—was associated with a reduced risk of suspension, net of parental supervision, attitudes toward teachers, and neighborhood demographics and social climate. The absence of a measure of student behavior leaves this robust finding open to multiple

interpretations. The negative association may suggest that students are more obedient in contexts in which teachers are collectively engaged and empowered in behavioral management. Alternatively, it may suggest that communally organized schools rely less on formal and exclusionary punishments. Finally, the association could reflect a reverse causal dynamic whereby the adoption of a zero-tolerance approach diminishes collective efficacy. Unfortunately, little quantitative research has assessed the impact of crackdown practices on core aspects of school climate (e.g., fairness, support, cohesion, and collective efficacy).

Although the extant ethnographic literature provides ample basis to theorize that criminalizing school discipline can backfire, it says little about the experience of most schools. Quite possibly, school-crime crackdowns generally improve safety, trust, and community cohesion when the degree and manner of implementation follow the expressed preferences of various stakeholders, reduce fear (except of the costs of school misconduct), and target for exclusion only students who persistently violate community standards after more positive and restorative approaches have failed (Owens 2017).

The Impact of Crackdown Practices on School Safety

A surprisingly sparse literature sheds light directly on the modal school safety impact of school punishment and policing. The primary reason for the paucity of direct and cogent evidence is the limited availability of pre- and post-crackdown safety-related outcomes in both crackdown (treatment) and non-crackdown (comparison) schools. However, even analyses that employ pre-post comparison group designs can yield ambiguous findings. For example, Na & Gottfredson (2013) found that adding school police predicted an increase in recorded weapon and drug offenses but no change in other types of offenses. Given the plausibility that the observed increases in recorded weapon and drug offenses reflect elevated crime detection and reporting rather than rising misbehavior, police-induced reductions in the actual incidence of offending cannot be ruled out. Furthermore, any measured effects of adding police could be confounded by concurrent changes in security and disciplinary policies and practices.

Another study (Owens 2017) addressed the endogeneity of specific schools' security and policing interventions by measuring the impact of a purportedly exogenous source of increased school policing—a police department's receipt of a federal Cops in Schools (CIS) grant. Owens found that the number of CIS officers awarded was not determined by trends in the "values of demographic, education, and crime variables" (p. 24) and, accordingly, argued that the measured impact of these grants is less vulnerable to selection bias than would be comparisons of schools with and without SROs. Owens further minimized the impact of social and political contextual factors by controlling for state and agency fixed effects. In keeping with Na & Gottfredson (2013), Owens found that hiring SROs is associated with more crime incidents in schools coming to the attention of police, except the pattern obtained for violence (fighting) along with weapons and drugs. Unlike Na & Gottfredson (2013), however, Owens used an instrumental variable analysis to isolate the effects of getting an SRO that was due only to CIS grant receipt.

This analysis yielded a negative effect of SROs on school administrators' reports of crime incidents, suggesting that once the endogenous conditions (needs and preferences for SROs) that explain why some schools get SROs (and eagerly use them) are accounted for, the marginal effect of getting one by happenstance (a CIS grant) is a reduction in crime. Owens was hopeful that the overall pattern of increased reported school crime in CIS communities and SRO schools reflected improved trust in the police more than increased criminalization and that SROs improved safety by making more arrests. Unfortunately, Owens' analysis is unable to establish that the observed associations are driven by the schools in which SROs were actually placed and unable to rule

out that endogenous factors associated with those particular schools determined both their SRO assignment and outcome variation.

Research on the behavioral and safety impact of school punishment is surprisingly thin. Criminologists have focused far more attention on the impact of school punishment on those being punished than on the behavior, achievement, and well-being of misbehaving students' classmates, even though concern about the latter students is often the expressed rationale for imposing exclusionary punishments (Sartain et al. 2015). In addition, the few extant studies are generally beset by endogeneity and/or measurement ambiguity. One recent study attempted to address the endogeneity of schools' suspension rates by capitalizing on the variation in school-level disciplinary policy. Kinsler (2013) estimated the effects within three North Carolina school districts of the marked variability among middle schools in the length of suspensions relative to the severity of the offense and the number of prior offenses. He found that being subject to relatively harsh sanctioning reduced students' risk of future disciplinary incidents, even in models "without unobserved student heterogeneity" (Kinsler 2013, p. 73). Moreover, he found that these harsher disciplinary policies, perhaps because of these reductions in disruptive behavior, are associated with overall improvements in schools' math achievement scores. Unfortunately, however, the analyses, which untenably assumed fixed policies across students throughout a school year, cannot rule out that the observed positive outcomes are due to unobserved school factors (e.g., the adoption of effective curricular, behavioral, or security interventions during the school year) that were statistically associated with harsh discipline.

Opportunities for criminologists to reliably (i.e., with quasi-experimental designs) assess the impact of school-crime crackdowns have dwindled because policy-driven increases in school punishment are relatively rare nowadays. However, opportunities to assess the impact of school punishment continuously emerge because numerous jurisdictions (sometimes under federal pressure) have chosen to abruptly and dramatically reduce the risk and length of school exclusion. If softening school discipline has no effect on school safety or even improves it, this contravenes the alleged deterrent and incapacitation effects of school exclusion. Suspensions and expulsions have plunged in numerous school districts, including those in Baltimore, Denver, and Oakland. However, researchers have not directly assessed concurrent changes in direct school safety measures (e.g., self-reported offending and victimization). And even if reduced punishments heralded no changes (or improvements) in school safety, these outcomes would more plausibly be attributed to those particular cities' expansion of positive and restorative approaches to behavior management than to curbs on harmful exclusionary practices.

Nevertheless, some jurisdictions have successfully reduced exclusionary discipline without a correspondingly serious investment in alternative disciplinary tools. For example, Chicago schools, beginning in 2012–13, were no longer permitted to suspend students for ten days for various offenses and could suspend students for more than five days only with district permission. A study by researchers at the University of Chicago's Consortium on Chicago School Research documented that in 2012–13 the share of students receiving lengthy suspension was cut in half and the average length of suspension was reduced by 14% (Sartain et al. 2015). They also documented that disciplinary alternatives were weakly and inconsistently implemented. When restorative practices were implemented, they generally supplemented exclusion rather than supplanted it.

The researchers were able to assess the impact of this sudden policy shift by measuring teachers' and students' perceptions of school social climate before and after the shift and examine whether greater reductions in school exclusion are associated with greater changes in school safety and climate (net any school-level shifts in student demographic factors). To prevent any preintervention observations from tainting post-intervention observations, while minimizing attrition, the student sample is limited to ninth graders. In other words, the analysis offers clean comparisons

between youth who experienced ninth grade under a harsh disciplinary regime and those who experienced it under a relatively lenient one. Unfortunately, most teachers cannot provide such fresh eyes following the reform. Furthermore, they were almost certainly more acutely aware and likely less sanguine about the policy changes. Thus, their impressions of school safety were relatively vulnerable to confirmation bias.

Sartain et al.'s (2015) findings suggested that, according to teachers, increased leniency compromised school safety. Their models estimated, separately for schools with relatively high rates of long-term suspensions and those with average rates, the effects across "two pre- and two post-policy years" (Sartain et al. 2015, p. 66) of average changes in suspension length across schools. The scale of teacher perceptions of crime and disorder gauged the perceived prevalence of seven behaviors, four of which directly impinge on crime and safety (e.g., student physical conflicts, gang activity). The other three (disorder in classrooms and hallways, and student disrespect of teachers) are likely weaker correlates of offending and victimization. Therefore, their relatively and unevenly high prevalence among the scale items diminishes the criminological relevance of this particular measure. The study finds that the policy is associated with a robust increase in teachers' perceptions of crime and disorder, especially in the high-exclusion schools.

Because this effect is vulnerable to confirmation bias and measurement ambiguity, it is important to examine the policy's effects on students as well. A subsequent working paper focused on these impacts (Mader et al. 2016). Intent-to-treat analyses revealed that, in contrast to teacher reports, reducing suspension length had no impact on students' feelings about safety in and around the school or student reports of peer conflict, respect, and cooperation. Moreover, in keeping with others' predictions (Kupchik 2016), reducing suspensions reduced the perceived prevalence of bullying and improved teacher-student trust—which is a seemingly good proxy for the fairness, support, and respect dimensions of an authoritative school climate. However, the effects on bullying prevalence reverted to zero during the second post-policy year.

The more discouraging findings from Kinsler (2013) and the teacher data in Sartain et al. (2015) are buttressed by anecdotal reports and surveys of teachers around the country bemoaning deteriorated student behavior in the wake of softened school disciplinary practices (Eden 2017). Hence, the evidence that harsher disciplinary responses to student misbehavior promote school safety merits serious consideration. However, in most school districts the policy choice is not simply between harsh exclusionary discipline and lenient discipline but rather between maintaining a disciplinary system that relies mostly upon exclusionary sanctions and investing in a system that emphasizes positive and/or restorative approaches (along with prevention) and uses exclusion as a last resort. These alternative approaches are designed to promote aspects of school climate (e.g., trust, support, cohesion, clear and consistent expectations, fairness) demonstrably linked to school safety. A detailed review of the effectiveness of disciplinary alternatives, such as (individualized and school-wide) Positive Behavioral Interventions and Supports (PBIS), school-based restorative justice, and Response to Intervention is beyond the scope of the present text. In the aggregate, the limited evaluation literature suggests that these interventions, when implemented properly, substantially reduce office referrals and exclusionary sanctions while either doing no harm to overall school safety or improving it (for reviews, see Fronius et al. 2016, Horner et al. 2010, Steinberg & Lacoe 2017).

THE SCHOOL-CRIME CRACKDOWN AND OFF-CAMPUS CRIME

A thorough and balanced criminological assessment of the school-crime crackdown would weigh any resultant improvements to school safety against potential harms to community safety associated with sending more at-risk youth to the streets and the justice system. Advocates and scholars have

identified numerous pathways through which enhanced school policing and punishment may increase levels of off-campus crime and criminalization. These direct and indirect pathways to crime are subsumed under the popular term “the school-to-prison pipeline.”

Direct and Short-Term Pathways from School Punishment and Policing to Crime

Increasing school suspensions automatically elevates off-campus crime somewhat because it affords demonstrably at-risk youth more opportunities to offend in the community. However, some scholars have suggested that an elevated risk of offending following suspension or expulsion is not merely a function of more unsupervised time in the community. School exclusion, especially if it is seen as unfair, may increase strain (Agnew 2001). It may also precipitate parent-child conflicts and even family disruption (Kupchik 2016) while conferring stigmatizing labels (Mowen & Brent 2016). Accordingly, Monahan et al. (2014) found that among adjudicated juvenile offenders in two major metropolitan areas, having been suspended or expelled in a particular month is associated with an increased risk of arrest that month, after parental monitoring and school commitment are (separately) taken into account. By contrast, no net effect on arrest was evident for that month's truancy. Although the observed impact of suspensions in that study likely reflects the impact of (unobserved) elevated delinquency in that particular month on arrest, at least one reported result was in keeping with disruptive or corrosive effects of suspension. Youth with lower levels of early onset problem behavior and peer delinquency—for whom the confounding influence of delinquency was presumably weaker—surprisingly exhibited stronger observed within-person effects of suspension on arrest.

Cuellar & Markowitz (2015) improved upon Monahan et al. (2014) by analyzing the precise timing of arrests and suspension for all youth in an urban school district. If suspended students are more likely to be arrested than non-suspended students only because they have higher levels of proximate delinquency and other unmeasured selection factors, then this group should exhibit the same elevated arrest risk on weekends and holidays that they do on weekdays, whether suspended on those days or not. However, if suspensions independently increase arrest, then a larger weekday-weekend difference should be evident for suspended youth on suspension days (versus non-suspended youth on regular weekdays). Unlike their predecessors, they also attempted to minimize potential conflation of the independent and dependent variables given that arrests may arise from the same school misconduct that triggers suspensions and expulsion. They assessed this conflation by examining whether the impact of suspension on arrest is stronger closer to the onset of suspension (a pattern that would also concur with general strain theory). These differences-in-differences analyses reveal that “being suspended out-of-school on a school day is associated with a more than doubling of the probability of offense” (Cuellar & Markowitz 2015, p. 105). They found no evidence of suspension-arrest conflation, although they acknowledged that some sampled arrests likely arose from school misconduct. The effects were much larger for African Americans, which could signal that part of the effect of suspension on arrest is due to increased police scrutiny of suspended youth as opposed to increased offending. However, a genuine effect on offending seems likely given that suspended African-American youth likely also draw more police scrutiny on weekends and suspensions also increase the risk of felony arrests (which infrequently occur in schools or as a consequence of police targeting) among youth aged 15–17.

No literature directly examining the impact of school police or school-based arrests on off-campus crime was found. Owens (2017) may have generated the most relevant findings. Owens estimated the effects of obtaining a CIS grant on police districts' subsequent off-campus crime incidents as measured by NIBRS. These incidents are a function of actual crimes and police

detection of those incidents (whether through their own efforts or calls for service). Owens isolated the impact of CIS grants through controls for agency fixed effects, county demographics, and time-varying agency controls such as other federal grants (which can affect agency size). Owens found that an additional CIS officer had no association with subsequent violence or weapons incidents, predicted a non-significant “12% increase in police knowledge of property offenses” (Owens 2017, p. 31), and significantly increased drug crime incidents. Owens suggests that SROs promote police-community trust, which increases residents’ likelihood of calling the police. In addition, SROs’ drug-related investigations of students may increase police intelligence on wider drug markets.

Indirect and Longer-Term Pathways from School Punishment and Policing to Crime

Most of the research suggesting an impact of school punishment and criminalization on crime focused on their effects on targeted individuals months or years later. Although many intermediary processes underlying these effects have been specified, they cluster under three larger, mutually reinforcing processes. First, crackdown practices allegedly lead to school failure and premature school departures, which can increase strain and impede labor-market success. Second, some crackdown practices, both independent of and through their effects on criminal behavior, are believed to further entangle youth in the juvenile and criminal justice systems. This enmeshment and associated social processes like labeling and social exclusion may harm identity and life chances and thereby increase criminal behavior. Third, some have argued that school exclusion may increase crime irrespective of its effects on educational attainment and justice system involvement. For example, some of the short-term effects of suspension on family support (Kupchik 2016) and self-worth (Wolf & Kupchik 2017) may do lasting damage to mental health. Wolf & Kupchik (2017) recently asserted that, “It is possible that exclusionary school punishment likewise teaches students that they have little social value, which might in turn make future deviant and harmful behaviors more likely” (Wolf & Kupchik 2017, p. 413).

The first of these three posited social processes is widely accepted but not well-documented. No known studies assessed the impact of school-based arrests or court referrals on achievement and dropout, although a few studies found that adding SROs is associated with an increase in suspensions (Fisher & Hennessy 2016), a frequent precursor to dropout. Studies on the impact of suspensions are often confined to administrative data, which rarely provide a valid control for delinquency or school misbehavior. At least one such study found a large effect of suspensions on dropout, net of many covariates of delinquency (Balfanz et al. 2015). Only one known multivariate study clearly documented that being suspended increased the risk of subsequent dropout, net of prior delinquency and an expansive set of individual and contextual risk factors (Peguero & Bracy 2015). Another study found strong effects of suspensions on dropout until expectations of arrest and college attendance were added to the model, which shrank the sample (Sweeten 2006). An adverse effect of suspensions on educational attainment also found support in qualitative research documenting how schools used the disciplinary system to push out perceived troublemakers and that many of the alternative schools to which troublesome or low-performing students are often transferred (sometimes following arrest or release from secure confinement) merely warehouse youth until they drop out or get in trouble (Bowditch 1993, Hirschfield 2014, Rios 2011, Vogell & Fresques 2017).

The second constituent path within this first exclusionary process—which links school dropout and crime—still has not been definitively established. Whereas economists have indirectly documented the adverse effects of dropout rates on arrest rates for general youth populations in their studies of variation in compulsory school laws and the minimum dropout age, no known studies assessed dropout as a mediator between school exclusion and crime. Sweeten et al. (2009, p. 65)

found that dropping out for school reasons, which include expulsion, suspension, poor grades, and dislike of school, had no in-person effects on the “number of different delinquent acts that were committed during a given time period.” Possibly, some youth who were informally pushed out of school for disciplinary reasons or who were criminalized out of school were classified as dropping out for other reasons. Dropping out for other reasons had a slight positive in-person effect on the measure of subsequent delinquency for males only. Importantly, even if dropout has no effects on delinquency in the near term, its effects on crime may emerge later in life through diminishing prospects in the labor and marriage markets. The statistical association between educational attainment and, for example, adult incarceration (Pettit & Western 2004, Wolf & Kupchik 2017) is consistently large, and research described earlier by economists (e.g., on compulsory school laws) supports causal inferences (Cook et al. 2010).

More recently, Na (2017) documented that among adjudicated juveniles, dropout did not predict the frequency of self-reported offending either within or between individuals, net of a multitude of psycho-social controls. Moreover, null in-person effects of dropout were observed even when minimal control variables were included. However, dropout had robust in-person effects on subsequent arrests, which Na (2017) attributes to increased exposure to police.

Elevated police scrutiny is one aspect of the second posited pathway between the experience of school punishment and policing and individual crime trajectories. Scholars and advocates have identified a number of ways in which such experiences may deepen involvement in the legal system. As mentioned, being out of school on a school day may arouse police suspicion. A transfer to a disciplinary alternative school may also elevate police scrutiny (Reck 2015, Rios 2011). School arrests, even for minor offenses, may directly criminalize youth if they are referred to court and subsequently ordered to participate in informal or formal probation (or other court sanction). School arrests and court involvement tend also to produce an official record, which disadvantages youth in subsequent charging, bail, and adjudication/sentencing decisions as well as in college, housing, and employment applications in some states (Kirk & Sampson 2013). Likewise, suspension or expulsion (or resultant school disenrollment) may adversely affect police and judicial decision-making and can even be a punishable violation of probation or parole conditions (Bishop et al. 2010, Kim et al. 2010). This process of legal sanctions evoking other negative institutional reactions, irrespective of offending, was recently termed secondary sanctioning (Lieberman et al. 2014) and situated within the theory of cumulative disadvantage (Sampson & Laub 1997), whereby marginalization and criminalization deepen with each successive sanction.

Although actual cases instantiate many of the foregoing forms of secondary sanctioning, documenting dispositive and cumulative effects of school sanctions on criminalization is challenging. Perhaps the toughest hurdle is isolating the effects of school-based sanctions from the behavioral problems that generally precede and succeed them. Fabelo et al. (2011) attempted to minimize the confounding influence of misbehavior by controlling for a multitude of other official risk indicators and modeling the effects of discretionary suspensions, which tend to be for common adolescent behaviors rather than arrest-worthy offenses. They found that discretionary suspensions or expulsions nearly tripled the risk of juvenile justice involvement in the next academic year. Likewise, Mowen & Brent (2016), using national survey data (the NLSY97 cohort), controlled for time-varying offending frequency (among other controls) and observed that suspension and dropout each independently predicted the risk of arrest. In keeping with the notion of cumulative disadvantage, they also found that multiple suspensions compound the risk of arrest, suggesting a “cumulative effect of school discipline on formal contact with the criminal justice system” (Mowen & Brent 2016, p. 648).

Does secondary sanctioning following school punishment or arrest increase self-reported offending? Although no direct evidence of this pattern was found, voluminous literature supports

the broader notion that accumulating a criminal record and the weakened social bonds and human capital associated with legal processing and incarceration not only increase offending among those punished but also leave their families and communities more vulnerable to crime (e.g., Doherty et al. 2016, Liberman et al. 2014, Kirk & Wakefield 2018).

The third process through which school sanctions allegedly influence crime over the long run is the least studied. To test a social-psychological pathway between suspension and crime among a national sample (National Longitudinal Study of Adolescent Health), Wolf & Kupchik (2017) examined whether a suspension by 1994–1995, when respondents were in grade 7 to 12, portended adverse health and crime outcomes 14 years later. They found that school suspension increased adults' risk of committing a crime in the past year even after years of school completed and a plethora of behavioral and school context controls were included. However, they detected no long-term effect of suspension on depression/anxiety or drug use, which counters their theory that suspensions leave lasting mental health scars (or otherwise worsen health trajectories). They did obtain a large net effect of suspension on adult incarceration, which aligns with theories of secondary sanctioning and cumulative disadvantage. Models of adult criminal behavior that control for antecedent, post-suspension arrests could help determine whether suspension influences adult criminality independent of secondary sanctioning processes.

SUMMARY, ASSESSMENT, AND RECOMMENDATIONS

This review has focused on recent empirical assessments of the effects of schools and school experiences on crime. The review was of limited scope, focusing on observational studies of the school/crime nexus, along with assessments of the impact of school punishment and policing rather than on evaluations of school-based psycho-social, curricular, or techno-security interventions, which are typically conducted by non-criminologists. Some of the reviewed studies sought to advance a theoretical agenda, some primarily pursued a policy agenda, and some aimed to do both.

For decades, the central theoretical issues in this field were (*a*) whether schools significantly and substantially affect criminal behavior, and, if so, by which theorized mechanisms and whether the observed strong associations between school factors and delinquency are (*b*) an artifact of stable propensities and other selection factors or (*c*) a result of a reverse causal association between delinquency and school attitudes, experiences, and behaviors.

Recent research has brought the field closer to consensus or closure on some of these issues. The work of Hoffmann et al. (2013), in particular, provided compelling evidence that worsening school performance increases the risk of delinquency and that this effect is not due to stable propensities or diminished school bonds, school effort, or attention, or inverse causality between delinquency and school performance. Although these findings certainly favored strain over social bonding interpretations, the study did not quite rule out unexplained and unobserved declines in engagement with homework—which was strongly linked to delinquency by other studies (Hirschfield & Gasper 2010)—as an explanation of both declining grades and rising delinquency. With respect to the reverse causality question, other research cited here (Hirschfield 2009b, Sweeten 2006) suggested that delinquency diminishes educational attainment, both directly and through triggering official sanctions.

Social bonding theory has not fared as well in recent complex models (Hirschfield & Gasper 2010, Hoffmann et al. 2013) of schooling and delinquency, but the issue of whether attitudes toward teachers and bonding toward school more generally, along with various other school attitudes, affect delinquency remains far from settled even after decades of research. And conventional multivariate methods are not likely to settle this question any time soon. This may reflect students' lived experiences, as school-related factors do not act independently but rather in complex and

indeterminate ways. It seems unlikely that a student will turn to crime or drugs simply because their grades slipped or because their favorite teacher disrespected them. However, a combination of multiple, interrelated conditions and events inside and outside of school can plausibly lead to delinquency. Criminological methods that are preoccupied with determining which theories are left standing and which are nullified after competing explanations are controlled are rarely designed to discern sets of school-related risk factors that play a decisive role in delinquency.

Rich theory-testing traditions in this field should continue. However, stagnation can result when theories are not updated to comport with lived experiences. The strong quantitative theory-testing tradition related to schools and crime therefore must be continuously informed by qualitative research on delinquents' school experiences (relative to non-delinquents). Even with fresh insights, however, the school and crime field within criminology seems particularly vulnerable to stagnation. This is because most of the key focal variables, such as school failure, school bonding, educational aspirations/expectations, engagement, and, of course, delinquency, are essentially endogenous. Many studies, as demonstrated herein, are vulnerable to claims of omitted variable bias. However, including a seemingly exhaustive set of control variables does not necessarily produce more valid results, because other endogenous variables may mediate and therefore attenuate the estimated statistical effects of key variables. In addition, controlling for too many variables can sap statistical power and produce unstable effect estimates via multicollinearity. In short, the constructs of greatest interest to most criminologists who study schools and crime are tangled in a web of proximate, reciprocal influence. Conventional regression methods do not seem equipped to disentangle them, which has led to theoretical stagnation in the field.

Although disaggregating the influences of closely interrelated endogenous school factors is a formidable challenge, it is worth pursuing both to forward a theoretical agenda and for practical and policy reasons. Because resources to help at-risk students are limited, it is prudent to target factors that bear a strong and seemingly independent relationship with desired outcomes. Fortunately, multivariate regression with observational data is not the only method for identifying these factors. Extant and new evaluations of interventions that narrowly target factors of interest such as academic performance or school bonding can be illuminating. Of course, effective interventions rarely improve only one dimension of school functioning or attitudes. However, surveys and interviews can be incorporated into the evaluation design to examine whether observed effects on the outcome were accompanied by corresponding changes in the targeted variable(s).

The second method to isolate the effects of particular school factors is to adopt methods commonly used in economics. As mentioned earlier, economists who wish to assess the effects of a particular variable like attending a good school seek to identify exogenous sources of variation in that variable, such as random lottery numbers, that bear no direct or indirect relationship to the outcome. Whereas the processes through which some of the economists' focal independent variables like high-performing schools, earning a diploma through Job Corps, and grade retention exert their observed effects are often unclear, criminologists can appropriate such methods to examine the impact of less theoretically ambiguous school factors. For example, approximately half of the states have high school exit exams (Baker & Lang 2013). Scoring just below the threshold needed for graduation seems like an unambiguous indicator of school failure that should have a strong relationship to dropout. A study on variation in states' high school proficiency requirements over time uncovered a "robust adverse effect of standards-based exams" on states' incarceration rates (Baker & Lang 2013, p. 2). A regression discontinuity or instrumental variables design involving scores on such exams would permit a more direct test of the impact of dropout or delayed graduation due to academic failure.

Quasi-experimental methods could also be used to test the impact of teacher- and classroom-related factors. Teachers vary considerably in their competence, likability, and relatability to

particular students (e.g., to students of the same race or sex). In contexts where teachers are assigned on a strictly randomized basis, where interteacher variation is stark, and where there are strong measured relationships between this variation and students' teacher attachment, school performance, etc., one could conceivably measure teacher assignment effects on misbehavior and delinquency in a theoretically instructive manner.

Policy changes also afford opportunities to examine the impact of changes in educational expectations. In 2005, public school students in Kalamazoo, MI, were promised privately funded free tuition in any Michigan public university if they graduated from a Kalamazoo public high school (Bartik & Lachowska 2013). If educational (and career) expectations directly affect delinquency, then declines in delinquency should have been evident almost immediately after the promise was made. Differences-in-differences models could preclude or minimize the impact of any local, historical selection factors by establishing that declines in delinquency are larger for those eligible for and cognizant of increased opportunity relative to other groups (e.g., younger children, similar children in nearby towns, older youth who fail to meet college admission criteria). If the policy has proximate effects on delinquency before other, more gradual changes occur (e.g., improved grades, reallocation of family resources from college savings into meeting other needs, school compositional shifts), this suggests that educational expectations per se affect delinquency. Such policy changes may also serve as exogenous sources of variation in other school-related factors of interest to criminologists. Quite recently, New York State similarly promised middle class New York students free state-funded tuition in a New York public university if students live and work in New York for four years following graduation. Differential reductions in delinquency may occur for those that meet income requirements and those who do not (the relatively affluent and poor students who are already eligible for tuition grants). Unfortunately, windows of opportunity to assess the effects of such policies with self-reported indicators of delinquency and school safety close quickly, which calls for advanced coordination between policy makers and researchers.

The burgeoning criminological literature on the impact of the school-crime crackdown, like most studies by economists, is motivated largely by policy concerns. Chief among them is whether toughened disciplinary codes and intensified school policing (and the broader security apparatus they manage) have purchased commensurate gains in school safety relative to their costs in public safety and relative to alternative disciplinary approaches. However, the emergent literature on the impact of school punishment is also animated by theoretical concerns. For example, some researchers sought to explain why suspensions affect crime (Mowen & Brent 2016, Wolf & Kupchik 2017). In this vein, a possible method for adjudicating among competing explanations is to compare the effects of OSS, in-school suspension (ISS), and truancy. Although selection within a particular school and school year into OSS versus ISS is surely endogenous to various outcome-related factors, valid ISS-OSS comparison groups likely emerge from policy-driven temporal (within schools) and geographic variation (between schools and school districts) in the use of ISS. If ISS and OSS have similar in-person or between-person effects on delinquency, this supports theoretical explanations that focus on social-psychological dynamics within schools (e.g., labeling, attitudes toward teachers and school authorities at school) and students (dynamic behavioral and family issues). If OSS has larger effects on delinquency, this directs attention to the effects of suspension on factors outside of school (e.g., increased unsupervised time and police exposure, increased family strain and conflict), along with more missed school work.

Comparing the in-person effects of truancy and OSS is a bit more challenging because the choice to skip school is likely more endogenous to individual risk factors than are organizational decisions to suspend youth. That said, there are exogenous sources of variation in truancy that are ripe for exploitation by researchers such as programs that provide substantial rewards for perfect attendance (Leff 2012). One can minimize endogeneity by controlling for person-level fixed

effects, which entails assessing whether individuals experience greater elevations in delinquency on the days they are suspended relative to days on which they are truant. If OSS effects are larger than truancy effects (and the off-campus delinquency is not merely a spillover from school misbehavior), this suggests that suspension affects delinquency for reasons (e.g., labeling, strain) beyond increased unsupervised time.

The recent attention on the part of criminologists to the crime and safety impact of school punishment and policing is long overdue. Had criminologists more earnestly evaluated crackdown initiatives in their early stages, the school-crime crackdown quite plausibly would have been less widespread and prolonged. Unfortunately, however, most of the recent research has been focused on the impact of punishment on the behavior of the punished (and related racial disparities). This research is aligned well with policies that seek to promote civil rights, and work in this vein on the effects of school-based arrests is still sorely needed. However, such research is unlikely to sway school officials whose main priority is improving school safety and performance. Unfortunately, far too little rigorous evidence exists to counter common-sense claims or anecdotal evidence regarding the effects of getting tough or going soft.

To help inform future debates about the efficacy of crackdown policies and practices, two lines of research are urgently needed. First, following the research done on Chicago schools (Mader et al. 2016), researchers should assess the impact of various natural experiments that have led to abrupt and steep declines in school punishment and criminalization (absent proportionate increases in therapeutic or restorative alternatives). For example, suspensions in Los Angeles suddenly plummeted in 2013 (with other districts soon following suit) after schools were banned from suspending students for willful defiance (Eden 2017). Eden (2017) notes that during the past decade, 53 large school districts and 27 states have enacted reforms that aim to reduce exclusionary discipline. Reforms have also sought to narrow the behavioral management role of SROs. For example, some jurisdictions like Oakland and Pasadena, CA, and Broward County, FL, now prohibit school officials from requesting police assistance for minor rule violations and some misdemeanors like trespassing and loitering, whereas other districts have reduced the number of offenses for which police referrals are mandatory (Frey 2014). In addition, the Texas legislature prohibited police from issuing tickets for school misbehavior and later rescinded a law making skipping school a misdemeanor (Assoc. Press 2015).

Even more relevant to policy than research on the impact of school decriminalization is research on the effectiveness of alternatives to exclusionary and police-based approaches. Alternatives such as restorative justice and PBIS have been proliferating nationwide. Expanded health insurance coverage has provided more opportunities for schools to medicalize rather than criminalize youth with behavioral health needs. Despite increased state and federal funding and despite the fact that restorative practices accord with criminological theory (e.g., procedural justice) and, along with PBIS, aim to strengthen school cohesion and aspects of authoritative school climate, efforts to evaluate the school safety impact of these interventions in middle schools and high schools using rigorous designs are scarce.

Actually carrying out this ambitious and important research agenda would require even more criminologists to pursue experimental and quasi-experimental methods. When experimental designs are not practical econometric methods (e.g., instrumental variables, differences-in-differences) can also strengthen causal inference. Because opportunities for additional training in econometrics are limited, criminologists should consider collaborating with researchers trained in these methods. Such collaboration would allow criminologists to test both theoretical and policy-relevant questions using methods that promote stronger causal inferences. At the same time, the integration of criminological theory and tools would help validate econometric models and identify the underlying mechanisms. First, relative to economists, criminologists are more cognizant

of factors shaping both crime-related policies and criminal behavior. Hence, many criminologists are better positioned to make theoretical arguments regarding which seemingly exogenous factors may be endogenous. Second, methods favored by criminologists such as surveys and interviews are also useful to help cross-validate the unevenly biased outcome measures favored by economists (suspensions and arrests) and policy-relevant assumptions that economists make about causal mechanisms. For example, if economists are correct that adding school police increases trust in the police or the perceived risk of school misconduct then this should be borne out in representative and generalizable survey data. Surveys that provide insight into which aspects of a good program or good school or which changes within students are likely responsible for particular outcomes can help policy makers make the best choices about how to target limited resources.

Schools remain an important influence on delinquency and criminal behaviors, although it remains unclear whether it is through their effects on social bonding, social status, self-concept, peer associations, social capital, or strain. This review offers suggestions for making research on the school-crime nexus more timely, policy relevant, and rigorous, to garner and merit more attention from policy makers. Given schools' history of adopting quick-fix, untested crime control solutions that may threaten community safety, it is imperative that criminologists earn and exercise more influence over schools.

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