



School resource officers and the criminalization of student behavior

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ABSTRACT

As school resource officer (SRO) programs continue to be widely implemented, there is concern that an increasing police presence at schools will “criminalize” student behavior by moving problematic students to the juvenile justice system rather than disciplining them at school. If true, this has serious implications for students and schools; yet research on this topic is limited and the discourse is often based on speculation or anecdotal evidence. To address this issue, this study evaluated the impact of SROs on school-based arrest rates by comparing arrests at thirteen schools with an SRO to fifteen schools without an SRO in the same district. Poisson and negative binomial regression models showed that having an SRO did not predict more total arrests, but did predict more arrests for disorderly conduct. Conversely, having an SRO decreased the arrest rate for assault and weapons charges. Implications of these findings for understanding SROs and their role in criminalizing student behavior are discussed.

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Introduction

Following a handful of high-profile incidents of lethal school violence in the 1990s, growing attention has been given to the protection of students and faculty at school. Though contrary to statistics showing that school crime nationally was declining, relatively rare, and usually nonviolent (Dohrn, 2002; Jackson, 2002; Miller, Gibson, Ventura, & Schreck, 2005), school shootings like those in Littleton, Colorado, and Jonesboro, Arkansas, fed growing public fear of juvenile and school crime. This led to the rapid implementation and expansion of numerous school security measures, ranging from the use of high-tech security devices like metal detectors and surveillance cameras to student-driven peer mentoring programs, school resource officer programs, and punitive zero-tolerance policies for disciplinary infractions (Eisenbraun, 2007).

Empirical evaluations of these various security strategies are limited, have varying levels of methodological rigor (D. C. Gottfredson, 2001), and often report conflicting findings (Brown, 2005). For example, while research done by Green (1999) and Johnson (1999) reported that metal detectors and school resource officers, respectively, enhanced school security, Schreck, Miller, and Gibson (2003) found them to be ineffective while Mayer and Leone (1999) found that they actually led to more school disorder. Moreover, while development of a positive school environment is considered critical to violence prevention (Eisenbraun, 2007; D. C. Gottfredson, 2001), common security measures like strip searches and use of undercover agents actually lower students' self-esteem and cause emotional distress (Hyman & Perone, 1998). According to Beger (2003), such strict measures foster an “adversarial

relationship” between students and school personnel and interrupt student learning (p. 340). Conflicting findings like these make it difficult to determine what works to prevent school violence while showing clearly that more research is needed (Brown, 2005; Eisenbraun, 2007).

Criminalizing student behavior

Moreover, several criminologists and legal scholars have expressed concerns that some strategies designed to make schools safer—particularly the growing number of school resource officers (SROs)—might actually *criminalize* student behavior and lead to a substantial increase in the number of school-based arrests. SROs are sworn law enforcement officers assigned full-time to patrol schools. As they become more common on school campuses, it is argued, discipline problems traditionally handled by school principals and teachers now are more likely to be handled by a school police officer (Hirschfield, 2008). Thus, as a scuffle between students becomes assault or disrupting class becomes disorderly conduct, it is expected that the number of youths referred from public schools for delinquent and criminal prosecution will climb, especially for behaviors that pose no legitimate threat to school safety (Beger, 2003; Brown, 2006; Dohrn, 2001, 2002; Hirschfield, 2008; Lawrence, 2007). According to Dohrn (2002), American schools have been transformed into “prisonlike” facilities, replete with locked doors, metal detectors, camera surveillance, and greater police presence (p. 283).

More information on this matter is urgently needed given the implications of criminalization for students, schools, juvenile and criminal justice systems, and communities. Students removed from school miss educational opportunities. These students also face humiliation and stigma from classmates and teachers after being led from school in handcuffs. Being stigmatized and labeled as an offender

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also might result in greater scrutiny, surveillance, and questioning from school staff and security. This type of regular suspicion and harassment could lead some youth to drop out of school (Scheffer, 1987) and could even contribute to a rise in community and school crime rates. Furthermore, having a criminal record might negatively impact access to jobs and institutions of higher education (Dohrn, 2001).

Currently, however, data are limited and confidentiality rules protecting juvenile court records make it difficult to calculate the number of arrests made by SROs (Center on Juvenile and Criminal Justice, 2000). Much of the discourse about criminalization is based on speculation, anecdotal evidence, or descriptive statistics. The present study therefore contributed to the literature by quantifying and evaluating the impact of school resource officers on school arrest rates. By comparing schools with an SRO to schools without an SRO in the same district, this study sought to identify differences in the number of arrests and types of charges. Such comparisons are critical for understanding the effect of SROs on school arrests while also considering their possible role in criminalizing behavior.

School resource officer programs

While a few school resource officer (SRO) programs have existed since the mid-1900s, the number has swelled since the late 1990s. Today, these officers represent a significant and popular trend in school violence prevention. Following the fatal shooting of a school principal by a middle school student, for example, Tennessee Governor Phil Bredesen announced that he would “look into making the SRO job a part of the framework for every public school” (Kovac, 2006, p. B7). It is not surprising then that, according to the National Association of School Resource Officers (NASRO, n.d.), a member service organization boasting about 10,000 members, school-based policing is the fastest growing area of law enforcement. While it is difficult to know the exact number of school resource officers, it is estimated that there might be more than 20,000 law enforcement officers patrolling schools in the United States (Brown, 2006).

School resource officers in the United States (also known as *school police officers* or *school liaison officers*) typically are employed by a local law enforcement agency and assigned to work in a school or schools. They perform traditional law enforcement functions like patrolling school buildings and grounds, investigating criminal complaints, handling students who violate school rules or laws, and trying to minimize disruptions during the school day and at after-school activities (Lawrence, 2007). SROs also are charged with educating students and school staff about crime and violence prevention, acting as mentors to students, and helping to improve the school environment (Rich & Finn, 2001). Officers usually are armed and often in uniform. While some schools utilize area law enforcement officers on a part-time or irregular basis, true SROs frequently have received extensive training in school-based policing and are a consistent fixture at the school. For these reasons, Rich and Finn urge clear differentiation between official SROs and other “sworn officers who focus exclusively on law enforcement activities in schools” (p. 4).

School resource officers and criminalization

To date, most published research on school resource officers or school-based policing focused on the implementation of such programs at schools (e.g., Briers, 2003) or on describing officers' duties while at school (e.g., Finn, Shively, McDevitt, Lassiter, & Rich, 2005; Rich & Finn, 2001). There also was literature discussing the development of collaborative partnerships between school and law enforcement personnel (e.g., May, Fessel, & Means, 2004; Patterson, 2007) as well as students' attitudes about school police officers (Hopkins, 1994; Hopkins, Hewstone, & Hantzi, 1992; Jackson, 2002). Though such research, commentaries, and process evaluations are

essential for understanding school resource officers, they rarely discussed the notion of criminalization or provided data about arrests made at school.

Nevertheless, in support of the criminalization hypothesis, there were numerous published reports documenting incidences in which students were arrested for seemingly minor offenses. For example, Rimer (2004) described how a fourteen-year-old student was arrested and detained for violating a school's dress code. The Center on Juvenile and Criminal Justice (2000) similarly described how a fourteen-year-old disabled student in Florida was arrested and charged with felony robbery after stealing \$2 from a classmate. The student was held for several weeks in an adult detention center before charges were dropped. In another example, a twelve-year-old student in Louisiana was arrested and charged with making *terroristic threats* and detained for two weeks after telling classmates in the school's lunch line that he would “get them” if they ate all of the potatoes.

Authors also noted the rising number of school-based arrests in some districts as validation of the idea that SROs contribute to criminalizing behavior. Rimer (2004) reported that the number of school-based arrests in one Ohio county increased from 1,237 in the year 2000 to 1,727 in 2002. According to juvenile court officials, most of these arrests were for minor offenses or unruly student behavior while only a very small percentage was for serious threats to school safety. A similar escalation was reported in Miami-Dade County, Florida, where the 2,345 school arrests in 2001 were a threefold increase over the number of school arrests in 1999. The vast majority of these arrests were for simple assaults and disorderly conduct. Given that both locations utilized SROs extensively at district schools, these figures make a compelling statement about the possible criminalization of student behavior. The number of arrests made specifically by an SRO is unknown, however, and such figures can be somewhat misleading since it is unusual for all schools in a district or county to have regular SRO involvement. In Miami-Dade County schools, for example, school resource officers are assigned to middle schools and high schools only, while police service is provided to elementary schools as needed.

Focusing on SROs exclusively, Johnson (1999) studied eighteen SROs recently placed at nine high schools and eighteen middle schools in one district in the southern United States. These officers made 145 arrests in a five-month period, including ninety-seven arrests involving drugs and forty-nine involving weapons. Without a comparison group though, it is difficult to know if this number of arrests is high or unusual for these schools. Similarly, Dohrn (2001) reported the number of arrests from one Chicago-area high school with an assigned police officer. There were 158 arrests during the 1996–1997 school year, including sixty-one for pager possession, twenty-one for disorderly conduct, and sixteen for non-firearm weapon possession. Yet, it is unclear if these data from a single school generalize to other locations since officers' and school principals' discretion as well as the school climate will influence decisions to arrest. In contrast, however, studies citing national statistics likewise were limited because they included data from schools with and without an SRO.

While more empirical research is needed to evaluate school-based arrests made by SROs, there are practical and conceptual reasons to suggest that SROs play an important role in introducing more and more students to the juvenile justice system. First, most crime occurring at schools historically has not been reported to police (Elliott, Hamburg, & Williams, 1998), yet having a police officer available and accessible at school facilitates reporting. One likewise would expect more crime to be witnessed by law enforcement when they are present daily at school. Along these same lines, as SROs assume increasingly more responsibility for handling school disciplinary problems, it is reasonable to expect that more and more situations will be resolved with an arrest now than in the past (Hirschfield, 2008). Finally, Bailey (2006) described SROs as having a “quasi-law enforcement role” in the school (p. 38). This complicates security issues and gives officers more freedom to search students

and detect contraband. Specifically, while the standard to search a suspect for police officers patrolling the streets includes probable cause and/or issuance of a warrant, the standard for school officials as determined in *New Jersey v. T.L.O. (1985)* is reasonable suspicion only. Therefore, an officer acting at the request of school officials—and thus serving as an agent of the school—operates under a less stringent standard for searching students (Bailey, 2006).

The present study

For all of these reasons, it was hypothesized that schools with an SRO have more total arrests and more arrests for charges like disorderly conduct and assault than schools without an SRO. To evaluate the role of SROs in school-based arrests, this study compared arrests occurring at middle schools and high schools with an SRO to those occurring at schools without an SRO in the same district. While school resource officers often are placed at all schools in a district (e.g., Johnson, 1999), the SRO program studied here was implemented by one metropolitan police department within the school district's catchment area. Thus, SROs in this district were not assigned to schools based on a school's need, history of violence, or demographics but rather by geography only and a school's location inside or outside of city limits. One school resource officer therefore was assigned to each of the seven middle schools, five high schools, and one alternative school within the city limits regardless of the school's past experiences with violence or delinquency. Consistent with standards promoted by the NASRO (n.d.), these officers received extensive training in school-based law enforcement, teaching skills, and school violence prevention programming. This police department served the largest city in the county with a population of nearly 200,000 residents.

The remaining seven high schools, seven middle schools, and one alternative school in the district were outside city limits and thus did not have an official, trained school resource officer assigned to them. Deputies employed by the county sheriff's department were responsible for these schools. Unlike the city schools, however, these deputies focused exclusively on law enforcement duties at schools. They received less training in school-based policing, often were assigned to more than one school in an area, and were not expected to make presentations to students or faculty or be a visible or proactive presence in the schools. Instead, when present at a school, deputies typically were stationed at the school's main office and charged with assisting the school principal in handling disciplinary referrals as needed. This activity contrasted markedly with the actions and level of involvement expected from the school resource officers. Such an organizational structure, wherein roughly half of the district's middle and high schools had an SRO and half did not and SROs were assigned based on school location rather than need, provided a unique opportunity to study the alleged criminalization of students by SROs.

Methodology

Sample and study design

To evaluate the impact of school resource officers on arrests at school, this study compared the number of arrests in three consecutive school years at thirteen schools with an SRO and fifteen schools without an SRO in one school district. Analyzing multiple years of data neutralized anomalies that might arise from a single year of data, while comparing schools in the same district controlled for variations in policies and guidelines that might exist across different districts. The district covered one county in the southeastern United States and boasted almost ninety public schools, including fourteen middle schools (grades six through eight), twelve high schools (grades nine through twelve), and two alternative schools serving middle and high school students with behavioral or mental health problems. These twenty-eight schools formed the sample for this study. District schools

were located primarily in urban and suburban settings. There were more than 53,000 students enrolled in all district schools with approximately 13,000 middle school students and 16,000 high school students. The majority of students district-wide were Caucasian (81 percent), followed by African American (15 percent), and Hispanic students (2 percent). Approximately 40 percent of all students received a free or reduced school lunch, while 13 percent had an accommodated disability.

Measures

Dependent variables

Seven dependent variables were analyzed here to assess differences in arrests between schools with and without an SRO. These variables were counts of the total number of arrests at a school during the three years, the number of arrests with a disorderly conduct charge, the number of arrests with an assault charge, the number of arrests involving possession of drugs or drug paraphernalia charges, the number of arrests for possession of alcohol or public intoxication charges, the number of arrests involving a weapon on school property, and the number of arrests involving all other types of charges. To collect these data, all delinquency petitions filed at the county's juvenile court from three consecutive school years (2003–2004, 2004–2005, and 2005–2006) were reviewed to identify those arrests occurring at district middle schools and high schools during normal school hours or at after-school activities. Since all juvenile arrests in the county were processed through the juvenile court regardless of school location and departmental jurisdiction, it was an ideal place to obtain comprehensive and consistent data about delinquency across district schools.

During the three school years, there were 1,012 arrests involving 878 different students at district middle and high schools. To assess differences between schools, arrests were aggregated to generate a duplicated count by school. In a duplicated count, students with multiple arrests are counted multiple times. While an unduplicated count (in which students are counted only once regardless of how many times they are arrested) is expected to underestimate the frequency of arrests at school, duplicated counts provide the most accurate measure of how often arrests are used to control discipline problems. For this reason, Raffaele Mendez, Knoff, and Ferron (2002) strongly encouraged the use of duplicated counts in school discipline research. Similar duplicate counts were generated for each delinquent charge of interest. Almost 90 percent of all arrests ($n = 893$) resulted in a single charge, while 10 percent ($n = 119$) yielded multiple

Table 1
School and delinquency characteristics for SRO and non-SRO schools ($N = 28$)

	Schools with a school resource officer ($n = 13$)	Schools without a school resource officer ($n = 15$)
	Mean \pm S.D.	Mean \pm S.D.
<i>School characteristics</i>		
Total students	992.2 \pm 493.7	1115.9 \pm 513.1
Percent economic disadvantage*	60.4 \pm 23.9	30.0 \pm 17.7
Percent ethnic minority students**	33.8 \pm 23.7	10.5 \pm 6.3
Percent attendance	92.0 \pm 3.4	93.9 \pm 3.7
<i>Rates of arrests and charges per one hundred students</i>		
Total arrest rate	11.5 \pm 25.1	3.9 \pm 6.9
Alcohol/public intoxication charge rate	0.5 \pm 0.9	0.3 \pm 0.4
Assault charges	1.0 \pm 1.7	0.7 \pm 1.5
Disorderly conduct charges	8.5 \pm 21.1	1.8 \pm 5.6
Drug-related charges	1.2 \pm 2.1	0.8 \pm 0.5
Other charges	1.1 \pm 1.0	0.6 \pm 1.0
Weapons charges	0.1 \pm 0.2	0.2 \pm 0.3

*Mean difference is significant; $F(1,27) = 14.87$; $p = .001$.

**Mean difference is significant; $F(1,27) = 13.49$; $p = .001$.

Table 2
Negative binomial regression results for total arrests at schools (N = 28)

Independent variable	Model 1		Model 2		Model 3	
	Coeff.	SE	Coeff.	SE	Coeff.	SE
SRO at school	1.091**	.438	0.055	.404	0.328	.868
Percent economic disadvantage at school	–	–	0.039***	.008	0.042***	.012
SRO x percent economic disadvantage (interaction term)	–	–	–	–	–0.006	.017
	Likelihood-ratio		Likelihood-ratio		Likelihood-ratio	
	X ² = 5.66		X ² = 23.90		X ² = 24.03	
	p = .02		p < .001		p < .001	

* p < .10.
** p < .05.
*** p < .001.

charges. For these arrests, each type of charge was counted separately, and as a result, the number of charges exceeded the number of arrests.

Independent variables

Independent variables came from annual reports published by the state's Department of Education. These reports are publicly available and show summary information about each school district in the state, as well as information on all individual schools within a district. Variables in the present study were averages calculated from the three years of data and included *total enrollment at each school*, *percent of the student body that was ethnic minority (non-Caucasian)*, *percent of the student body that was economically disadvantaged* (a measure of school poverty defined as the percentage of students receiving a free or reduced lunch at school), and *attendance rate* (the average number of days students attend school divided by the average number of days the students are enrolled).

These variables were selected because they had been linked to school discipline outcomes in other studies. In studies of school exclusion (out-of-school suspension and expulsion), *Bruns, Moore, Stephan, Pruitt, and Weist (2005)* found that the percent of students in poverty at a school was positively correlated with the out-of-school suspension rate, while school enrollment and mean school attendance rate were negatively correlated with this rate. In a similar study of rates, *Raffaele Mendez et al. (2002)* found that school level variables like percent of students receiving free lunch and percent African American were positively correlated with out-of-school suspension rate, while percent Caucasian and percent Hispanic were negatively correlated. *Brown (2006)* likewise summarized research showing a relationship between school poverty and size and crime rates.

Data analyses

Independent variables are presented on *Table 1* and compared using analysis of variance (ANOVA) tests with a Bonferroni adjustment for

multiple comparisons. All data met normality assumptions. Since school resource officers were placed at schools based on geography rather than random assignment, these comparisons were done to identify significant differences between the two sets of schools. To better isolate the impact of SROs on arrests, differences in the independent variables must be controlled for in subsequent regression models. As shown in *Table 1*, data suggested that schools with an SRO had more poverty and a larger percentage of ethnic minority students. Whereas ethnic minority students often are overrepresented in lower socioeconomic groups (*Eisenbraun, 2007*), these two variables expectedly are highly correlated ($r = .81$; $p < .001$). Therefore, to avoid multicollinearity problems that arise when covariates are highly correlated (and given this study's sample size), only one was included as an independent variable in the subsequent regression models. The decision was made to use *percent of students with economic disadvantage* because it represented a more significant difference in this study, had been explicitly linked to school problems in other studies (e.g., *Bruns et al., 2005*), and problems confronting ethnic minority students at school often are embedded in poverty and socioeconomic issues.¹ As *Skiba, Michael, Nardo, and Peterson (2002)* noted in regard to school exclusion, the connection between race and socioeconomic status (SES) in the United States is undeniable and "increases the possibility that any finding of disproportionality [in school exclusion] due to race is a by-product of disproportionality associated with SES" (p. 321). *Table 1* also displays the mean arrest and charge rates per one hundred students at schools with and without an SRO. These rates for total arrests and all specific charges of interest were calculated by dividing the total number of arrests or charges in the three-year study period by the average number of students at school for the three years divided by one hundred.

Tables 2–5 show the results of a series of negative binomial and Poisson regression models. These types of statistical analyses are ideal for count data (like *number of arrests at school*) that have nonnegative integers, are highly skewed since some counts will be very low (i.e., some schools will have few arrests), and have heteroscedastic error terms. Tests for overdispersion (the variance is greater than the mean) showed that negative binomial regression was appropriate for all dependent variables except the number of arrests involving weapons charges. For this variable, Poisson regression was used.

The study's modest sample size ($n = 28$ schools) limited the number of independent variables that could be included in the regression models. Though there is still much debate about the minimum sample size needed per independent variable in multivariate analysis (*Knofczynski & Mundfrom, 2008*), this study used the popular rule of thumb that one independent variable per ten sample members is appropriate (*Harrel, Lee, Matchar, & Reichert, 1985; Peduzzi, Concato, Kemper, Holford, & Feinstein, 1996; Vittinghoff & McCulloch, 2007*). Vittinghoff and McCulloch suggested this rule might be too conservative, yet other research has found that this rule limits bias and maintains the validity of multivariate models (*Harrel et al., 1985; Peduzzi et al., 1996*). Specific to this study, three regression

Table 3
Negative binomial and Poisson regression results for arrests involving assault and weapons charges at schools (N = 28)

Independent variable	Assault						Weapon on school property					
	Model 1		Model 2		Model 3		Model 1		Model 2		Model 3	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
SRO at school	0.262	.468	–0.740*	.385	0.849	.688	–0.225	.312	–1.304**	.457	–1.295	.931
Percent economic disadvantage at school	–	–	0.038***	.008	0.059***	.011	–	–	0.032***	.008	0.032**	.013
SRO x percent economic disadvantage (interaction term)	–	–	–	–	–0.037**	.014	–	–	–	–	–0.000	.017
	Likelihood-ratio		Likelihood-ratio		Likelihood-ratio		Likelihood-ratio		Likelihood-ratio		Likelihood-ratio	
	X ² = 0.31		X ² = 18.17		X ² = 23.79		X ² = 0.51		X ² = 15.15		X ² = 15.15	
	p = .58		p < .001		p < .001		p = .48		p < .001		p = .001	

* p < .10.
** p < .05.
*** p < .001.

Table 4
Negative binomial regression results for arrests involving drugs and alcohol/public intoxication charges at schools (N = 28)

Independent variable	Drugs						Alcohol/public intoxication					
	Model 1		Model 2		Model 3		Model 1		Model 2		Model 3	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
SRO at school	0.064	.315	−0.162	.379	0.012	.733	−0.020	.439	−0.131	.576	−1.027	.998
Percent economic disadvantage at school	–	–	0.008	.008	0.011	.013	–	–	0.003	.011	−0.016	.022
SRO x percent economic disadvantage (interaction term)	–	–	–	–	−0.005	.016	–	–	–	–	0.026	.025
	Likelihood-ratio		Likelihood-ratio		Likelihood-ratio		Likelihood-ratio		Likelihood-ratio		Likelihood-ratio	
	X ² = 0.04		X ² = 0.98		X ² = 1.06		X ² = 0.00		X ² = 0.09		X ² = 1.22	
	p = .84		p = .61		p = .79		p = .96		p = .96		p = .75	

* p < .10.
** p < .05.
*** p < .001.

models were presented for each dependent variable described above. This multi-model structure allowed for evaluating the impact of SROs on arrests with and without controlling for other independent variables. The first model included only one independent variable—having an SRO at school or not (coded as SRO at school = 1, no SRO = 0). The second model included this variable plus *percent of students with economic disadvantage*. The final model then added the interaction (SRO x school poverty) of these two variables. This term was added to assess differences in arrests as poverty levels changed at schools with an SRO. This was an important consideration given speculation that the criminalization of student behavior is especially acute at lower socioeconomic schools.

In all models, the *average number of students at a school during the three years divided by one hundred* was included as an exposure variable. This controlled for differences in the number of students across all schools. Dividing the average by one hundred helped in translating the output to more common and easily understood terminology since regression coefficients then can be reported as a percent change in the arrest rate “per one hundred students.” Regression coefficients were interpreted using the standard formula where a one-unit change in an independent variable equals a 100(e^b−1) percent change in the dependent variable (D'Alessio & Stolzenberg, 2003; DeMaris, 1995; Hannon & Cuddy, 2006). As a final comment, it is important to note that having an SRO at school or not is a dichotomous variable while *percent of students with economic disadvantage* is a continuous variable wherein values can range from 0 to 100 percent. Comparisons of the two variables and their resulting rates hence should be made cautiously since the magnitude of change may vary dramatically across the two different types of variables.

Results

Comparisons of the school characteristics presented in Table 1 show that a larger percentage of students at schools with a school

resource officer (SRO) had economic disadvantage compared to schools without an SRO. These schools also had a larger percentage of ethnic minority students. Regarding delinquent arrests, there were 216 more arrests at schools with an SRO (n = 614) than at comparison schools (n = 398). The most common charge at SRO schools was disorderly conduct (n = 361) followed by other charges (n = 101) and drug-related charges (n = 98). At those schools without an SRO, the most common charges were drugs (n = 138), then disorderly conduct (n = 77), and possession of alcohol and public intoxication (n = 72). Among the forty-two arrests district-wide for possessing a weapon, twenty-three involved a knife, twelve involved a firearm, and the remaining seven involved items like a copper pipe, metal baton, or box cutter. Across all schools, the most common charge in the *other* category was trespassing (n = 38 arrests), followed by theft (n = 24), and vandalism (n = 17).

Without controlling for school poverty level, the presence of an SRO gives a 197.7 percent increase in the rate of arrests per one hundred students (Model 1). Yet, as shown in Model 2 on Table 2, when economic disadvantage is added to the regression equation, having an SRO at school ceases to be a significant predictor of arrests. Instead, for each one percentage point increase in economic disadvantage at a school, the rate of arrests per one hundred students increases by 3.98 percent (without interaction term) and 4.29 percent (with interaction term). The interaction is not significant in Model 3, indicating that the number of arrests does not change as poverty levels change at schools with an SRO.

Regarding specific charges, though not significant when alone (Model 1), Model 2 in Table 3 shows that having an SRO at school leads to a 52.3 percent decrease in the rate of arrests involving assault charges per one hundred students when controlling for the level of economic disadvantage at school. The same model also shows that as economic disadvantage increases by one percentage point, this rate increases 3.9 percent. In the third model, with both independent variables and the interaction term, each one percentage point increase

Table 5
Negative binomial regression results for arrests involving disorderly conduct and other charges at schools (N = 28)

Independent variable	Disorderly conduct						Other					
	Model 1		Model 2		Model 3		Model 1		Model 2		Model 3	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
SRO at school	1.614**	.703	0.825*	.482	3.034**	1.249	0.798**	.373	−0.242	.343	0.178	.668
Percent economic disadvantage at school	–	–	0.070***	.011	0.098***	.020	–	–	0.031***	.007	0.038**	.011
SRO x percent economic disadvantage (interaction term)	–	–	–	–	−0.049*	.026	–	–	–	–	−0.010	.014
	Likelihood-ratio		Likelihood-ratio		Likelihood-ratio		Likelihood-ratio		Likelihood-ratio		Likelihood-ratio	
	X ² = 4.64		X ² = 30.72		X ² = 34.83		X ² = 4.04		X ² = 20.60		X ² = 21.13	
	p = .03		p < .001		p < .001		p = .04		p < .001		p < .001	

* p < .10.
** p < .05.
*** p < .001.

in economic disadvantage at a school increases the rate of arrests involving assault charges by 6.1 percent while a rise in economic disadvantage at schools with an SRO decreases this rate by 3.6 percent.

Similar patterns exist regarding arrests involving possession of a weapon on school property. For this charge, when controlling for economic disadvantage, schools with an SRO have a 72.9 percent decrease in the rate of arrests per one hundred students. Conversely, each one percentage point climb in school poverty increases this rate of arrest by 3.3 percent. This same effect is evident in the full model with the interaction term.

Table 4 shows that neither school resource officers nor poverty predicts changes in the rate of arrests involving drug or alcohol and public intoxication charges. The regression coefficients associated with having an SRO at school generally are negative, but none approach a level of statistical significance. The interaction term also is not significant for either dependent variable.

Finally, results presented in Table 5 show that school resource officers dramatically increase the rate of arrests with disorderly conduct charges with and without controlling for school poverty. Specifically, without controlling for economic disadvantage at schools (Model 1), having an SRO yields a 402.3 percent increase in this arrest rate per one hundred students. This percent increase remains large even after controlling for poverty and the interaction of SROs and poverty. As Models 2 and 3 illustrate, the presence of an SRO at school increases the rate of arrests involving disorderly conduct charges by 128.2 percent and 1978.0 percent, respectively. These two models also show that a one percentage point rise in economic disadvantage increases the arrest rate by 7.3 percent when controlling for the presence of an SRO, and 10.3 percent when controlling for having an SRO and the interaction term. Interestingly, regarding the interaction term, a one-percentage point increase in poverty at schools with an SRO equals a 4.8 percent decrease in the arrest rate per one hundred students.

Schools with a resource officer have a 122.1 percent increase in the rate of arrests involving other charges per one hundred students when analyzed without other independent variables. When economic disadvantage is added to the regression models (Models 2 and 3), however, the impact of SROs ceases to be significant. Instead, school poverty emerges as the only significant predictor. A one percent increase in this variable raises the rate of arrests with other charges per one hundred students by 3.1 percent. When controlling for SROs and the interaction term, a one-percentage point increase in economic disadvantage increases this arrests rate by 3.9 percent.

Discussion

Evidence of criminalization

While it was hypothesized that having an SRO at school predicts more total arrests, this hypothesis received only limited support here. While the data presented in Table 1 implied significant differences in the total number of arrests between SRO and non-SRO schools, such differences were not as robust as expected. Though the presence of SROs did predict a dramatic increase in the rate of arrest per one hundred students independent of other variables, this variable ceased to be significant when controlling for school-level poverty. Such mixed results might be a function of the study's sample size since smaller samples limited the detection of smaller effect sizes.

On the other hand, however, this potential limitation makes the observed differences in types of charges all the more noteworthy. The analyses revealed several interesting findings that, when considered together, show an interesting pattern regarding the role of SROs in school-based arrests. Primarily, the high number of disorderly conduct incidences at SRO schools compared to non-SRO schools was consistent with the belief that SROs contribute to criminalizing student behavior. Having an SRO at school significantly increased the rate of arrests for this

charge by over 100 percent even when controlling for school poverty. Given that disorderly conduct was the most common charge in this study, these results have serious implications for schools, law enforcement agencies, and juvenile courts.

Clearly, disorderly conduct is the most subjective, situational, and circumstantial of the charges studied here. Compared to more objective situations like finding a youth in possession of a knife or narcotics, the decision to interpret disruptive behavior as criminal is done at the officer's discretion. Thus, one strategy to reduce the number of school-based arrests is to change how officers approach such situations. When approaching a disruptive student, for example, an arrest should be the least preferred outcome and done only in agreement with the teacher and school principal. Likewise, it also is important to change teachers' and school administrators' expectations of SRO interventions. As Dohrn (2001) described, teachers more often are turning to police officers to handle difficult students. Teachers and principals are ignoring the "teachable moments" that come from student misbehavior and failing to take advantage of opportunities to work with adolescents in need (p. 95). This is truly unfortunate since quality education is a path to success in adulthood. Given the long-term negative consequences that can follow removing a child from the classroom and denying them educational opportunities, improved classroom management skills and appropriate behavioral training for students would seem preferable to arrest and other more punitive outcomes.

For the remaining, more objective charges studied here, having an SRO at school was insignificantly or negatively associated with these outcomes. This latter result was true for assault and weapons charges, wherein the presence of an SRO decreased the rates of arrest involving these charges per one hundred students by 52.3 percent and 72.9 percent respectively. Such findings were counterintuitive since better detection of weapons was expected at schools with an SRO and it was hypothesized in the extant literature that SROs criminalize fighting by pressing assault charges (e.g., Begeer, 2003; Dohrn, 2001).

While it was not possible to determine the exact reasons for these unexpected findings, one possible explanation is that the presence of SROs at schools might deter certain behaviors. For instance, students might be less inclined to carry a weapon into the school building knowing that a law enforcement officer will be there. Likewise, students might be less likely to fight knowing that an officer is present and such behaviors could lead to being arrested. They might delay the fight until after school or decide to move it away from school grounds. Along the same lines, Astor, Meyer, and Behre (1999) found that most school violence occurs in "unowned" places, or those locations like hallways and parking lots that usually lack adult supervision (p. 3). Thus, having regular police patrol in these areas might be preventing some acts of violence and crime. Alternately, the presence of SROs at schools might make students feel safer and thus less likely to feel the need to carry a weapon for protection. These enhanced feelings of safety also might contribute to better feelings about school in general, a stronger sense of connection to school, and a better school environment that could then lead to decreased aggression and fewer fights among students.

Arrests and economic disadvantage

The significance of school poverty to predict number of arrests was noteworthy, especially given its high correlation with ethnicity. This study showed that students at schools with greater economic disadvantage had a higher number of total arrests as well as more arrests for assault, weapons possession, disorderly conduct, and other charges than schools with less poverty. While it has been suggested that poverty might play a role in school-based arrests (Brown, 2006; Dohrn, 2001), this association has not been explicitly studied. Yet, such results were consistent with research finding that poverty is a strong predictor of school exclusion (Cameron & Sheppard, 2006;

Raffaele Mendez et al., 2002), as well as research finding that poor and ethnic minority youth are disproportionately involved with the juvenile and criminal justice systems (see Hirschfield, 2008; Laub, 2002; Sampson & Lauritsen, 1997).

Reasons explaining poverty's role in predicting school-based arrests specifically are unclear and warrant further investigation. When examining school violence generally, however, Khoury-Kassabri, Benbenishty, Astor, and Zeira (2004) described the importance of assuming an ecological perspective that considers school violence within the context of student, school, family, and neighborhood factors. As Chen (2008) stated, "schools are extensions of the community" (p. 302). It is not surprising then that previous research had found links between higher levels of community poverty, crime rates, and unemployment and greater school crime and disorder (Chen, 2008; Khoury-Kassabri et al., 2004; Welsh, 2001, 2003; Welsh, Stokes, & Greene, 2000). Other suggested explanations offered in the published literature emphasized the difficulties associated with living in poverty. Dohrn (2001), for example, suggested that parents from lower socioeconomic backgrounds lack the resources and influence needed to protect their children from the juvenile justice system. Moreover, while many families in lower socioeconomic neighborhoods have a single parent only, two-parent families are a protective factor against delinquency (Farrington & Loeber, 2000; D. M. Gottfredson & Snyder, 2005).

It also has been suggested that discrepancies in school discipline result from the clash between middle-class school systems and low socioeconomic status students. For instance, Caucasian teachers and principals might misunderstand or misconstrue the physical communication style common among ethnic minority youth, particularly African American youth (Raffaele Mendez & Knoff, 2003; Skiba et al., 2002). This could lead to an unnecessarily harsh response from teachers, school administrators, or security officers. It should be recognized, however, that data in this study did not support that SROs discriminate against lower socioeconomic status students. In fact, when significant in the analyses, regression coefficients for the interaction term showed that arrest rates declined as poverty increased at schools with an SRO. This was somewhat counterintuitive since research had found that lower socioeconomic status juveniles and minority youths often had poorer attitudes toward the police and legal system (see Hurst & Frank, 2000).

As a final comment, it was interesting to compare the types of charges here with those reported in other studies. Consistent with reports from Ohio and Florida summarized by Rimer (2004), disorderly conduct was the most common charge in the present study followed by other, miscellaneous nonviolent charges. While the majority of arrests at the Chicago-area high school studied by Dohrn (2001) were for *pager possession*, there were no such arrests during the three years studied here. This most likely was a byproduct of the different time periods when data were collected. During the 1996–1997 school year (Dohrn's study), pagers were relatively new and novel. Now, though, cellular phones are pervasive on school campuses, most students possess at least one, and schools cannot regulate possession like they used to. Regardless, Dohrn's point that the majority of arrests at the school were for relatively minor, nonthreatening behaviors was true in the present study too.

Limitations and future research

A critical avenue for future research is to compare the number of arrests at a school before and after the arrival of SROs. While such within-school comparisons are critical for understanding the impact of SROs on a school's arrest rate, data limitations and availability in the present study precluded these types of comparisons. Specifically, the juvenile court providing data for this project updated its data management system in April 2003. This involved changing management system software, adjusting data-entry procedures, and adding or modifying system variables. Efforts to compare arrests by school

between the old and updated systems thus may yield complicated and unreliable results since data coding and categories varied. Along similar lines, since this study compared school-based arrests across schools in one school district, more research is needed to determine how the findings generalize to other districts and regions.

Furthermore, the present sample was not sufficient to detect small effect sizes in the data. Future research therefore should seek to compare data from more schools located in multiple districts. Analysis done with a larger sample would help to clarify associations in the data, including the role of SROs to predict more total arrests at schools. The sample size also limits the number of independent variables that can be appropriately included in multivariate tests; so, a larger sample size would allow for evaluating the impact of SROs on arrests while controlling for more descriptive and demographic characteristics of the schools. Given the few observed differences between schools in this study combined with the fact that SROs were assigned based on geography rather than school demographics, it was unlikely this would have meaningfully altered the results but it is an important consideration in future research. Nevertheless, since schools with and without an SRO in this study did differ in characteristics that are often associated with arrests, specifically having higher levels of poverty and more ethnic minority students, future research is needed that continues exploring these key variables, their relationship with other school characteristics, and the link between these variables and higher or lower school arrest rates.

In building on this study, future research evaluating the long-term consequences of school-based arrests is needed. Classic labeling theory, for example, postulates that involvement with the juvenile justice system increases the likelihood of future delinquency (Becker, 1963). If valid for students arrested at school, such findings would have tremendous implications for how behavior problems are handled. This is especially true for those juveniles arrested for relatively minor offenses since arresting them might be creating a delinquent where none existed before. Differences in the long-term consequences of school-based arrest by gender, ethnicity, socioeconomic status, and other student characteristics should be investigated. Besides testing labeling theory, future research also should seek to clarify the role of poverty in arrests at schools, particularly at those with an SRO.

Additional areas for future research include investigating how SROs make the decision to arrest, typical circumstances leading to arrests, and if there are demographic or behavioral differences in problematic students who get arrested and those who do not. Finally, research shows that school culture is related to both school violence and successful violence prevention program implementation (D. C. Gottfredson, 2001). It therefore is critical to evaluate the relationships between school culture, arrests at school, and SRO activities. Researching these issues is not possible with juvenile court records and consequently requires additional data from schools, including observational data from police-student encounters as well as surveys of students.

Conclusions

Concerning the role of SROs in criminalizing student behavior, this study yielded mixed results. The findings showing that SROs were not associated with an increase in total arrests when controlling for school poverty and that schools with an SRO had fewer arrests for weapons and assault charges are encouraging. Such results are contrary to the criminalization hypothesis and may even signify that SROs have a positive impact at schools. Nonetheless, the number of arrests involving disorderly conduct charges at schools with an SRO is troubling. As police and school security become more and more omnipresent at schools, school resource officers, teachers, principals, and all school staff need to be mindful of the negative consequences associated with punitive disciplinary strategies and criminal arrests. For most youth, especially those from lower socioeconomic neighborhoods, education is an invaluable resource to insure a brighter future. To deny them an education

because of a minor classroom disturbance or hallway disruption is unacceptable, unfair, and may permanently limit their prospects for a better life.

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Note

1. To fully understand the relationship between the relevant independent variables and the dependent variables, all regression models were re-estimated with *percent of the student body that is ethnic minority* replacing *percent of students with economic disadvantage* as the independent variable (including the interaction term). These two sets of models show consistent results and strikingly similar relationships between the independent and dependent variables. A copy of this additional analysis is available by contacting the author.

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