

Communities, Students, Schools, and School Crime

A Confirmatory Study of Crime in U.S. High Schools

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This study investigates how community characteristics, student background, school climate, and zero-tolerance policies interact to affect school crime. The study articulates and fits a school crime model to 712 high schools participating in the 2000 School Survey on Crime and Safety, confirming that school location and student socioeconomic status have moderate effects on school crime. Much of the contextual effects are mediated via school climate. School climate reflected by school size, student mobility, and student misbehavior affect school safety in profound and predicted ways. Larger size and schools with higher student transience and misbehavior predict higher levels of criminal incidents. School security program is correlated with lower school crime; however, the effect is small and nonsignificant. Tough on crime policy is associated with higher level of school crime, controlling for community and school variables. Consequently, a positive school climate in combination with necessary security control is recommended to improve school safety and reduce school crimes.

Keywords: *school crime; school climate; school culture; school structure; security programs; punitive measures; structural equation model*

School crime is a major issue for policy makers, educators, students, parents, and concerned citizens. In 1999-2000, 71% of public schools in the United States experienced at least one violent incident (Miller & Chandler, 2005). The heightened alert of school crimes in the 1990s has prompted diverse responses from school systems. Metal detectors, surveillance cameras, and police presence are commonplace in many urban schools. Serious penalties, including suspension and expulsion, are often used in the name of zero tolerance and getting tough on crime (Casella, 2003). However, the theoretical underpinnings of these programs are still being debated and their effectiveness is being challenged by empirical studies (Mayer & Leone,


1999). Given the significant impacts of these programs on our next generation and society at large, both short term and long term, and recognizing the extraordinary financial resources that have been, and will be, used in addressing this issue, more in-depth understanding of how major forces in complex school systems interact and how school-based safety programs work in that environment to improve school safety is of great interest to academia and practitioners.

This article examines school crime and common school responses to crime from a national sample of schools. It articulates and tests a macro school crime model based on school climate theory and from an ecological perspective. It then imposes school security and penalty measures to the model, hypothesizing positive program effects. The extended model provides the grounds for a statistical analysis of the effect of the selected safety measures over and above the ecological and socioeconomic conditions.

Literature Review—School Crime and School Safety Programs

Many scholars have studied school crime from diverse perspectives and disciplinary orientations (Gottfredson & Daiger, 1979; Morrison, 2001; Welsh, 2003). Student demographics, such as age, race, and poverty, and socioeconomic status (SES) have been consistently found to be related to school crime and violence (Clark & Lab, 2000; Kramer, 2000). High schools are more likely to report larger numbers of serious offences than elementary schools. The concentration of minority students predicts a higher level of school violence. The higher the student poverty level, the higher the reported rate of school crime becomes (Flannery, 1997; Hellamn & Beaton, 1986). School location, partly because of its association with urban poverty, also relates to school crime. Analyzed separately, urban schools are associated with higher levels of school disorder. This association diminishes or disappears after controlling for other community and student population covariates, reflecting the commonly shared variances.

Schools are extensions of the community, and community crime rates have been posited to be associated with school crime (D. C. Anderson, 1998; Bowen & Bowen, 1999; Mateu-Gelabert, 2003). However, empirical evidence has not been uniformly supportive of this proposition. A recent systematic study of school disorder found no unique contribution of community crime rates to school disorder, whether the community is defined as



the locality where the school resides or as the place where the students really live (Welsh, 2000).

Schools are also the primary institutions aside from the family wherein students spend extended periods (Gottfredson & Gottfredson, 1985). School climate is therefore a key factor in studying school process and school effect on student behavior and achievement (C. S. Anderson, 1982; Welsh, Stokes, & Greene, 2000). Two key concepts in the school climate framework are school structure and school culture. School structure reflects organizational arrangement and operation procedures that govern school process. A key aspect of school structure that relates to disorder is school size. Theoretically, larger schools may create an environment of impersonality and anonymity, which could lead to delinquency (National Institute of Education, 1978). However, large schools may also provide more specialized resources and comprehensive programming that can be tailored to the diverse needs of the students, enhancing the relevance of schooling (Conant, 1967). How school size affects student behavior is an empirical question. Research findings to date have not been consistent; school size has been found to be positively, negatively, or nonlinearly related to student behavior and achievement (Lee, 2000; Rutter, 1983).

School culture can be indexed by student mobility and student discipline problems (Welsh et al., 2000). Mobility of the student population is often measured by the number of transfers in and transfers out. High mobility of the student population is more likely to occur in schools in which students do not have strong bonding with the school organization (Welsh et al., 2000). Lack of bonding with schools is correlated with school crime.

Discipline problems in a school can manifest in many ways, but recent studies have emphasized the issue of student bullying and disruption of classroom activities. Student bullying is on the rise, and disruption of classroom activities has a larger impact on all students beyond the unruly. These behavioral issues, if not addressed firmly, fairly, and promptly, could lead to crime and violence (Olweus, 1996).

In response to the concerns of crime and violence in public schools, the federal government, in cooperation with local authorities, enacted and promoted zero-tolerance legislations. The zero-tolerance policy represents governments' efforts to restrict firearms and to deter potential offenders from committing crimes. The concept of "punishing dangerousness" is a strategy both preventive and preemptive in nature (Robinson, 2001). The consequences of these laws and practices are perceived differently by people along the socioeconomic line. Proponents attribute the reduction of crime in schools in the 1990s as evidence of the effectiveness of the policy. Opponents cite the

unfair distribution and impact of the law on disadvantaged groups, especially the poor and minorities (Casella, 2003).

Congruent with the “tough on crime” and zero-tolerance policies, many schools in America have implemented prevention and intervention programs (Wilson & Lipsey, 2005). The most visible programs are control-based security measures, such as metal detectors, police presence, locker searches, and camera monitoring in school buildings and on school grounds. Theoretically, these programs can have a deterrence effect and make crimes harder to perpetrate. But these programs share an asylum mentality, treating students as inmates. The long-term effects remain to be seen (Mayer & Leone, 1999).

Limited empirical studies have addressed school crime or crime prevention programs in a comprehensive and systematic fashion (Astor, Meyer, Benbenishty, Marachi, & Rosemond, 2005; Flannery, 1997). Welsh et al. (2000) applied the school climate concept to construct a school disorder model. The model connects student poverty, community stability, school size, community crime, and student stability to school disorder. The study showed that poverty was associated with school disorder, that larger schools predicted higher levels of disorder, and that the effects of community, student, and school size on school disorder were mediated by school stabilities, as measured by student attendant rates and turnover rates. However, the model did not include school safety policies and programs that could also affect the level of school disorder. The study was also limited in terms of external validity, as the sample was drawn from one large urban school district only. The conclusion of the study therefore cannot be generalized to other populations, and replications of the study in larger nationally representative samples are recommended.

In another relatively comprehensive study of school crime and crime prevention programs, Mayer and Leone (1999) analyzed Scholl Crime Supplement data using structural equation models (SEMs). They found that school safety policies and programs could have different impacts, depending on the nature of the programs. Schools that have clearly stated rules and that enforce those rules firmly but fairly tend to have a lower crime rate. Schools that focus on restrictive security measures, including metal detectors and security personnel presence, tend to have a higher level of crime. It should be pointed out that the relationship between crime and security programs could be reciprocal. Higher crime could lead to more security measures, not the other way around. In any event, the negative correlation suggests that these control-based machines or human interventions are not

working in reducing crimes. A less restrictive, firm, but positive school policy is more likely to achieve the intended outcomes, especially in the long run. The study, although very well designed, has limitations. As the authors insightfully recognized, the study failed to include many important contextual variables, including student population demographics, poverty, ethnic composition, and crime in the community of concern.

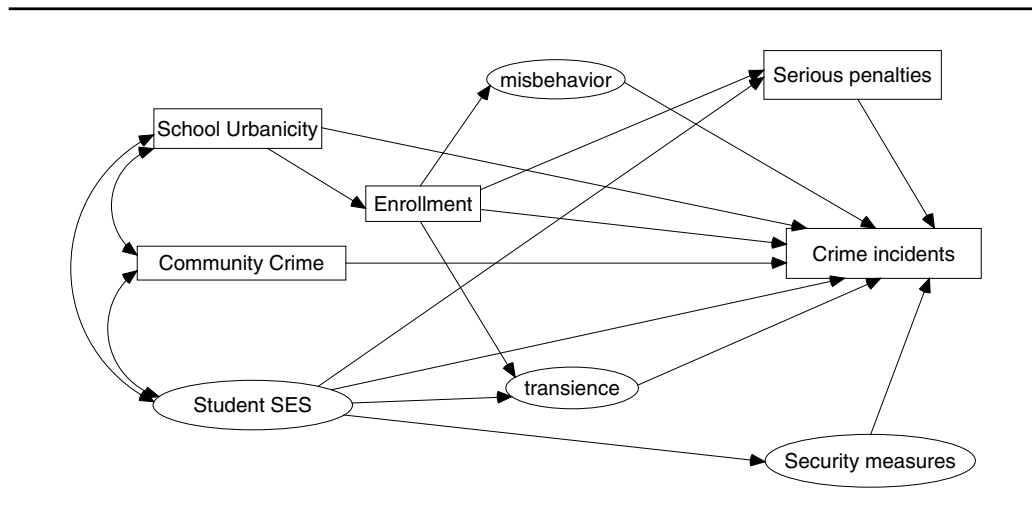
In sum, limited studies have addressed the issue of school crime and crime prevention. Many studies were piecemeal, investigating one or a few variables at a time. Most studies were correlational or case based, with limited **internal and external validity**. Theory-based, comprehensive, confirmative studies to investigate the mechanism through which community context, student population characteristics, school climate, and school safety measures interact to affect school safety are needed to improve our understanding of school safety and to inform policy makers to address this nationwide concern of our time.

School Crime Model

The present study articulates and tests a school crime model, building on the school disorder model developed by Welsh et al. (2000). The school crime model extends the school disorder model to include school security programs and serious penalties in response to student behavioral problems, inspired by the study of Mayer and Leone (1999). The school crime model hypothesizes that student SES predicts school crime rates. Schools that serve primarily poor and minority students report more crime. The model also postulates that community characteristics affect the level of school crime. Urban location and higher level of community crime are associated with higher level of school crime. Much of the student and community variables, however, affect school safety indirectly, mediated by school factors that are amenable to policy and management controls. As a policy variable, school size is hypothesized to relate to school safety. The direction of impact is presumed to be unknown, given the complex nature of the relationship. Moreover, student mobility predicts school disorder. Schools with a higher level of student transience will have more crime, following the theory of school climate.

By design, school security programs and serious penalties are ways to maintain an orderly environment for school activities. Consequently, **the model hypothesizes that school securities and enforcement actions improve school safety. However, the direction and extent of the impact are matters**

Figure 1
Illustration of School Crime Model



of empirical testing given the inconsistent results from previous studies. The model of school crime is illustrated in Figure 1.

Method

Data

The data for the present study were obtained from the 2000 School Survey on Crime and Safety (SSOCS) by the National Center for Education Research (NCES). SSOCS is a survey of principals or school disciplinarians regarding the frequency of crime, the nature of the school environment, and the characteristics of school safety programs (Chaney et al., 2003). Respondents were asked to report on various types of school crime that occurred in the 1999-2000 school year. Public schools of all levels are included in the study. The present study focuses on secondary public schools, recognizing their tendency of reporting more serious crime. The restriction to secondary schools explicitly removes age or grade as a potential confounding variable, incidentally simplifying the study design.

There were 712 secondary schools in the NCES national sample, among which 32 schools had missing data on study variables. Given the fact that these schools represented less than 5% of the total number of schools in the sample, listwise deletion was used in bivariate analysis, and an imputation method was used in structural equations modeling.

Variables

Urbanicity. Urbanicity captures the location of the school, which is a variable that, as demonstrated in the literature section, has a documented effect on crime. Schools in the data set were classified into four categories: city, urban fringe, town, and rural. Urbanicity was coded as 1 = *rural*, 2 = *town*, 3 = *urban fringe*, and 4 = *city*, with a larger number representing a greater degree of urbanicity.

Community crime. Community crime measures the level of crime where the students live. The crime rates were obtained from principals' responses to the question "How would you describe the crime level in the area(s) in which your students live?" The measure used a 4-point scale, representing high, moderate, low, and mixed levels. The initial values were recoded to create an ascending scale (i.e., 1 = *low*, 2 = *moderate*, 3 = *mixed*, and 4 = *high*), corresponding to the level of crime they represented.

Student SES. Student SES is a latent construct. It is derived from two measured indicators of student population: poverty and racial/ethnic composition. The poverty level in a school is measured by the percentage of students eligible for free or reduced-price lunches. The racial/ethnic composition was measured by school percentage of minority students. The two variables reflect the derived construct of student SES.

School size. School size is measured by the total enrollment of a school at the beginning of the school year. The data were presented as a categorical variable in the SSOCS data set with four categories in ascending order, and the data were coded into 1 to 4 ordinal scales, wherein 1 = *less than 300*, 2 = *300 to 499*, 3 = *500 to 999*, 4 = *1,000 or more*, representing the ascending size category in the original data set.

Misbehavior. School misbehavior is another latent construct, reflecting two measured indicators, the frequency of bullying and the frequency of disorders in classrooms. The two indicators represent student discipline problems that have not yet escalated to the level of crimes. Both variables are measured on a 5-point scale, wherein 1 = *never happens*, 2 = *happens on occasion*, 3 = *at least once a month*, 4 = *at least once a week*, and 5 = *happens daily*.

Security program. The school security program is a latent variable, composed of two SSOCS index variables: the number of ways that school

controls access to campus (access) and the number of ways in which school monitors student activities (monitor). The school security program construct represents the extent to which a school takes actions to physically control its environment to reduce the opportunity for crimes.

Serious penalties. Serious penalties was measured by the number of times a school penalizes its students with “removals with no continuing school services for at least one year,” “transfers to specialized schools for disciplinary reasons for at least one year,” or “out-of-school suspensions lasting five or more days, but less than one year” for reasons including firearm possession, use of other weapons, other weapons possession, drug distribution, drug possession, attacks or fights, threats, insubordination, and other infractions. The school’s serious penalty variable reflects on the extent to which schools use punitive measures in response to school disciplinary problems.

Criminal incidents. Criminal incidents counts the total number of crimes that occurred in a school in the past 12 months. Various types of crime are included in the study, including rape or attempted rape, sexual battery other than rape (including threatened rape), physical attack or fight with a weapon or without a weapon, threats of physical attack with a weapon or without a weapon, robbery (taking things by force) with a weapon or without a weapon, theft or larceny (taking things worth more than \$10 without personal confrontation), possession of firearm or explosive device, possession of a knife or sharp object, distribution of illegal drugs, possession or use of alcohol or illegal drugs, sexual harassment, and vandalism. This variable provides a summary measure of the extent of crime at schools and is the outcome variable in the school crime model.

Analytical Framework

Structural Equation Modeling (SEM) was selected as the main analytical technique. SEM incorporates a system of equations and allows the inclusion of latent variables. These capacities facilitate testing of theoretical constructs and hypothesized causal links. They avoid the complication often associated with traditional multiple regression analysis. For a system as complex as schools and their surrounding communities, the regression approach would have to invoke a large number of independent equations and an even larger number of parameters for estimation. The interpretation of the results would be difficult considering the interrelations among the equations and the potential collinearity within each equation. SEMs, on the

other hand, can be interpreted conceptually and presented graphically with easy and clarity. Although fundamentally a variance and covariance structure analysis method, the SEM method does allow empirical testing for causally hypothesized links.

The present analysis followed a confirmative empirical approach. It articulates an explicit school crime model upfront and fits the model into SSOCS national data for evidence of support or rejection of the underlying theory. The fit of the model was evaluated by goodness of fit indices and estimated absolute errors. The chi-square statistic was not used in this study because of its high sensitivity to sample size (712 schools in the present study). A preliminary data assumption check revealed that some of the variables were positively skewed. This could lead to underestimation of standard error for parameter estimates and overreporting of significant variables (Byrne, 2001; MacCallum, Browne, & Sugawara, 1996). Consequently, a more stringent significance test standard was employed. Instead of using traditional $p = .05$ as the criterion, the study recognized significance only if the p value was below .01.

Results

Descriptive Statistics

Frequency distributions and descriptive statistics of the study variables are presented in **Table 1 and Table 2**. Table 1 shows that city schools make up 21% of the sample, and urban fringe schools account for another 39%. Rural and township schools represent the rest of the schools. Often related to urban location is the level of crime. Of the schools, 17% are in high-crime and mixed-crime communities. Three fourths of the schools in the sample serve low-crime communities, with the rest in the moderate-crime communities.

Table 1 also shows that 15% of schools have more than 50% of students eligible for free or reduced price lunch. 21% have more than 50% minority students. Given that this is a national sample of schools, it is likely that these distributions reflect the national student population pattern.

Table 2 indicates that schools on average reported 58 criminal incidents, with a standard deviation of 60. All explanatory variables varied substantially. The number of serious penalties centralized at 47, with a standard deviation of 96. The number of students transferred to schools averaged 87, with a standard deviation greater than 121. The variability in the variables provided the foundation for the following bivariate and SEM analysis.

Table 1
Frequency Distribution of Categorical Study Variables

Variable	Category	Frequency	Percentage
Urbanicity	City	148	20.8
	Urban fringe	278	39.0
	Town	110	15.4
	Rural	176	24.7
Community crime	High level of crime	21	2.9
	Mixed levels	96	13.5
	Moderate level	115	16.2
	Low level	476	66.9
% receiving free lunch	Less than or equal to 20%	337	47.3
	21% to 50%	265	37.2
	51% or more	110	15.4
% minorities	0% to 5%	214	30.1
	6% to 20%	189	26.5
	21% to 50%	160	22.5
	more than 50%	149	20.9
Enrollment	Less than 300	51	7.2
	300 to 499	86	12.1
	500 to 999	186	26.1
	1,000 or more	389	54.6
Student bullying	Happens daily	65	9.1
	At least once a week	127	17.8
	At least once a month	169	23.7
	Happens on occasion	340	47.8
	Never happens	11	1.5
Classroom disorder	Happens daily	3	.4
	At least once a week	21	2.9
	At least once a month	36	5.1
	Happens on occasion	306	43.0
	Never happens	346	48.6

Bivariate Correlations

The results of the bivariate correlation analysis are presented in Table 3. Urbanicity, community crime, percentage of minority students, school size, student transience, and student misbehavior are significantly correlated with school criminal incidents. Of interest, the number of ways schools control building access (access) and the number of serious penalties (serious penalties) are positively correlated with the number of criminal incidents.

This seems to suggest that more access controls and more serious penalties predict a higher level of crime, which is consistent with the findings in

Table 2
Descriptive Statistics of Quantitative Study Variables

Variable	<i>N</i>	Min.	Max.	<i>M</i>	<i>SD</i>
Crime incidents	712	0	632	57.93	59.750
Serious penalties	712	0	1,379	47.42	96.018
Access	712	0	7	3.03	1.182
Monitor	712	0	7	1.88	1.389
# transferred to school	681	0	900	86.86	121.547
# transferred from school	679	0	1,038	94.20	132.812

Mayer and Leone's (1999) study but contradictory to the model hypothesis of the present study and the ultimate purposes of these programs. A more sophisticated method, such as SEM, is required to reveal and unravel the multivariate and potentially causal relationships.



Testing the School Crimes Model

The school crimes model, as illustrated earlier in Figure 1, was fitted to the data using SEM implemented in AMOS software. The results suggest that the model fits the data well. The comparative fit index (CFI) is .91, exceeding the required .90 standard. The root mean square error of approximation (RMSEA) is .08, meeting the .08 requirement (Browne & Cudeck, 1993). The model accounts for 40% of variance in school criminal incidents. The model is therefore deemed a reasonable representation of reality, albeit in a reduced or arguably oversimplified form.

The parameters estimated from the analysis support most of the hypotheses of the school crime model. Urbanicity has a positive direct effect on school crimes ($\beta = .10, p = .01$). Urban schools tend to have more crimes and rural schools have less. School location also affects school crime rates indirectly through its association with school size ($\beta = .57, p < .001$), which relates subsequently to school crime ($\beta = .21, p < .001$). The total effect is therefore .22 ($.10 + .57 \times .21$), combining both the direct effect and indirect effect. The proportion of indirect effect is high. Among the total effect of school location and school crimes, 45% is mediated by school size. In other words, to a significant extent, the impact of urbanicity of school location on school crimes could be moderated by deliberately adjusting the policy variable of school size.

Consistent in direction with the model prediction, lower student SES predicts higher crime rates. The effect is nevertheless insignificant ($\beta = .12$,

Table 3
Bivariate Correlations of Study Variables

	Crime Incidents	Serious Penalties	Access	Monitor	Student Bullying	Classrooms Disorder	# Transferred to	# Transferred from	Enrollment	% Free Lunch	Minorities	% Urbanicity	Community Crime
Crime incidents	1	.336**	.126**	.067	.272**	.216**	.417**	.377**	.432**	.044	.272**	.362**	.229**
Serious penalties		1	.105**	.121**	.071	.086*	.246**	.249**	.227**	.061	.146**	.148**	.132**
Access			1	.439**	-.040	.129**	.172**	.180**	.190**	.250**	.295**	.202**	.243**
Monitor				1	-.050	.098**	.136**	.117**	.110**	.299**	.298**	.113**	.186**
student bullying					1	.333**	.102**	.084*	.084*	-.003	.071	.012	.069
Classroom disorder						1	.150**	.104**	-.070	.169**	.200**	.103**	.163**
# transferred to							1	.884**	.390**	.126**	.343**	.319**	.220**
# transferred from								1	.376**	.135**	.331**	.327**	.228**
Enrollment									1	-.163**	.256**	.569**	.122**
% free lunch										1	.470**	-.016	.340**
% minorities											1	.394**	.393**
Urbanicity												1	.258**
Community crime													1

*Correlation is significant at the .05 level, two-tailed. **Correlation is significant at the .01 level, two-tailed.

Table 4
Structural Equation Modeling Regression
Weights and Significance

Effect		Cause	Estimate	SE	Critical Ratio	<i>p</i>
Enrollment	←	Urbanicity	0.495	0.027	18.472	***
Misbehavior	←	Enrollment	0.099	0.040	2.488	.013
Transience	←	Enrollment	41.803	4.480	9.331	***
Serious penalties	←	Student SES	16.506	4.550	3.628	***
Serious penalties	←	Enrollment	19.814	3.842	5.157	***
Transience	←	Student SES	44.557	5.674	7.853	***
Security measures	←	Student SES	0.507	0.058	8.757	***
Criminal incidents	←	Misbehavior	23.033	5.256	4.383	***
Criminal incidents	←	Urbanicity	5.399	2.188	2.467	.014
Criminal incidents	←	Serious penalties	0.117	0.019	6.028	***
Criminal incidents	←	Security measures	-6.818	4.203	-1.622	.105
Criminal incidents	←	Community Crime	3.579	2.666	1.342	.180
Criminal incidents	←	Student SES	8.042	4.349	1.849	.064
Criminal incidents	←	Transience	0.092	0.020	4.618	***
Criminal incidents	←	Enrollment	13.255	2.565	5.167	***

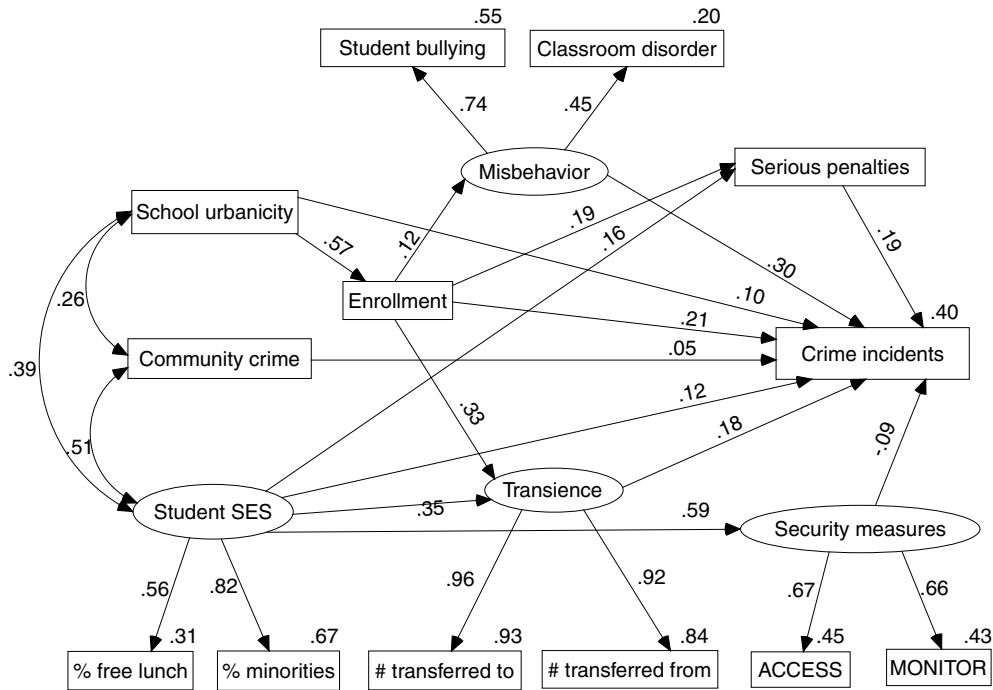
***Significant at the .001 level.

$p = .064$), due likely to common covariation with school location. Community crime, which is significantly and substantially associated with criminal incidence in the bivariate analysis, lost its predictive power ($\beta = .05$, $p = .18$) after allowing for other community and student background variables. Consistent with a previous study (Welsh, 2003), community crime rate does not contribute uniquely to the explanation of school crime over and above other key causal or contributing factors included in the school crimes model.

As indexes of school culture, student misbehavior and transience are closely associated with school crime. As shown in Figure 2, both factors are significant and substantive. Student misbehavior as measured by frequency of student bullying and classroom disorder is especially important ($\beta = .30$, $p < .001$). It supports the broken window metaphor that misbehavior, if not attended to in a firm and timely manner, could lead to major crime (Olweus, 1996).

School size, as measured by student enrollment, has a direct effect on school crime ($\beta = .21$, $p < .001$). Larger schools predict higher levels of criminal incidents. Consistent with the school crime model, school size also exerts an indirect effect through the mediation of school culture as indexed by the level of discipline problems and the transience of students. The indirect effect

Figure 2
Path diagram of School Crime Model



is estimated to be $.10 (.12 \times .3 + .33 \times .18)$. The total effect of school size on the number of criminal incidents is therefore summed to $.31$. One standard deviation increase on school size leads to a $.31$ standard deviation rise on school crimes. The indirect effect of school size on school crimes is also considerable. School culture mediates 31% of the total effect of school size.

Consistent with the model hypothesis in direction, school security program, measured by access control and activity monitoring, appears to become negatively correlated with crime rate, after controlling for other model variables. More school security measures predict less school crime. The effect, however, is small and insignificant ($\beta = -.09, p = .105$). This result contradicts the previous study by Mayer and Leone (1999), lending qualified support to the current policy and practice of deploying these school safety measures. Inconsistent with the model hypothesis, however, the effect of serious penalties, including removal without services, out-of-school suspensions, and outright expulsion, is positive in direction ($\beta = .19, p < .001$) and highly significant in size. Higher numbers of penalties is associated with higher numbers of criminal incidents, community, student population, and school climate variables being controlled.

Discussion

The present study provides empirical evidence to support the school crime model, wherein school climate, especially the elements of school culture and structure, exerts a significant effect on school crimes. School culture as measured by student misbehavior and student transience has a significant direct effect on school crime. The higher the level of student mobility and discipline problems, the higher the school crime rate becomes. This is consistent with previous studies in school climate and school disorder (Welsh, 2000). Schools that create and maintain a positive culture through character education and social skills training seem to be a better alternative for consideration in combating school crime.

School structure, as indexed by school size, has a direct effect on school disorder and an indirect effect via school culture. Smaller schools are associated with less crime than are their larger counterparts. This evidence therefore supports the small school size argument as a foundation for the present school reform movement, although the theoretical supports are still being debated. **Smaller schools may indeed have provided the intimacy and bonding that is difficult for larger schools to achieve.** This is supported by the fact that a large proportion of the size effect (45%) is mediated via school culture. Reducing school size by and of itself may not prove to be effective in solving the school safety problems. School reformers need to consider how school size reduction can create opportunities for individual attention and student participation, which then lead to positive bonding and social culture, which in turn can improve student behavior and reduce school crime.

Inconsistent with the school crime model, the selected security and intervention programs in the study failed to demonstrate significant positive effects in improving school safety. The negative sign in the path coefficient, however, suggests that these security measures at least do not cause more crimes, as reported by some high-profile previous studies (Mayer & Leone, 1999). Under certain circumstances, for example, in some urban schools or at a time of crisis, these control-based, prevention-oriented programs should still have a role to play at least for the short term. At a minimum, the presence of these measures could deter or make it harder for the potential perpetrator to commit serious crimes. The punitive measures in response to student problems and school crime, however, are significantly counterproductive. More serious penalties predict more crime incidents, although a reciprocal interpretation cannot be totally ruled out by the present study design. At a minimum, this result indicates that serious penalties are not working in the short run. The long-term consequences of these policies are even more worrisome,

considered theoretically and in the broader societal context. Out of the school systems, nowhere to go for help and with no rules to follow for direction, these expelled students, these young adolescents in their teens, have less chance to grow into productive and contributing citizens in the future.

Given that fact that control-based, punitive programs failed to demonstrate significant effects on school crime, other policy alternatives should be sought to improve school safety and reduce school crime. As an alternative, policies and programs that facilitate and enhance a positive school climate seem to have greater potential, although a combination of deterrence and education programs is recommended for both the short and long term given the results from the present study. Cognitive, behavioral, and social skills-based programs can be either incorporated into regular school programs for the broader student population or narrowly designed for selected at-risk students, along with the security measure for schools facing serious crime problems. Effective programs, such as FAST Track—Family and School Together/PATHS (Astor et al., 2005)—and communal organization or student bonding programs (Payne, Gottfredson, & Gottfredson, 2003) should be considered in designing new effective school safety programs. In combination with security and control-based programs when necessary, these value and behavior modification programs are more likely to be able to provide a safe school for our current students and the generations to come.

This study is limited in a number of ways. Among the most salient, the study uses school-level data, which cannot uncover individual differences among students. Second, the data are cross-sectional, which do not provide the time precedence to enhance causal interpretation. The study can be enhanced and replicated with new data over time. Theory-based, experimental, in-depth, qualitative case studies and best practice-oriented evaluative studies will complement this macro, nationwide statistical analysis to advance our knowledge of the interactions among communities, students, schools, and school crime.

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