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A Promising Approach to Narrowing the School-to-Prison Pipeline: The WISE Arrest Diversion Program

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Abstract

Recent dramatic increases in the number of youth arrested for nonserious behavior in schools have led some jurisdictions to search for solutions to the "school-to-prison pipeline." In this article, we evaluate the WISE arrest diversion program in Utica, New York. We use a mixed-methods evaluation design including: (1) a pre–post program comparison of school conduct by participants, (2) a pre–post program comparison of school-based arrests at Upstate High School, (3) a multivariate analysis that estimates the influence of the WISE program on school-based arrests while controlling for citywide juvenile arrests and the passage of time, and (4) interviews conducted with students, program staff, and stakeholders. Although the program appeared more successful in reducing Upstate High School's reliance on arrest than in improving school conduct among participants, results suggest that the WISE arrest diversion program contains promising elements and lessons for narrowing the school-to-prison pipeline.

Keywords

school-to-prison pipeline, arrest diversion, program evaluation, juvenile justice

Introduction

In response to increasing juvenile violence and high-profile school shootings in the 1990s, zero-tolerance school policies have proliferated in the United States. These policies originally mandated suspension, expulsion, police notification, or arrest for severe and dangerous rule infractions, such as bringing guns or drugs to school (Advancement Project, 2010; Dunbar & Villarruel, 2002; Skiba &

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Peterson, 2000). In recent years, the scope of these policies has increased dramatically, allowing schools to utilize exclusionary discipline to address minor infractions. For example, one 12-year-old girl was handcuffed in front of classmates and arrested for drawing on her desk in New York (Chen, 2010); in Georgia, a 6-year-old kindergarten student was arrested for throwing a temper tantrum in class (Dianis, 2013). This criminalization of nonserious school misbehavior has created a direct path from the classroom to the juvenile or criminal justice systems for a number of students, typically referred to as the school-to-prison pipeline (Advancement Project, 2010). In New York City alone, 882 arrests were initiated in schools, 81% of which were for either school violations or misdemeanors (New York City School–Justice Partnership Task Force, 2013). With so many students being swept into the juvenile and criminal justice systems[1] for minor infractions, some communities have sought ways to interrupt the school-to-prison pipeline.

In this article, we describe and evaluate a program designed to narrow the school-to-prison pipeline in a high school and two middle schools in Utica, New York. The WISE[2] arrest diversion program targets youth who have committed a low level but arrestable offense on school grounds and diverts them from arrest by offering programming designed to support school attendance and achievement, address problems before they lead to disruptive school behavior, and engage students in after-school activities to prevent further involvement in offending. We use a mixed-methods evaluation design with four components: (1) a pre–post program comparison of school conduct by program participants, (2) a descriptive exploration of school-based arrests at "Upstate High School"[3] before and after program implementation, (3) a multivariate analysis that estimates the influence of the WISE program on school-based arrests, and (4) interviews with students, program staff, and stakeholders designed to identify implementation issues. Our research questions stem from the two-pronged focus of the program that is aimed at students and schools: (1) Was program participation associated with an improvement in grades and attendance and a reduction in the number of disciplinary referrals generated by participants? (2) Was the program's implementation associated with a schoolwide reduction in arrests? (3) Were there lessons learned during the implementation process that could be useful to planners in other jurisdictions wishing to address the school-to-prison pipeline?

Review of the Literature

Since the early 1990s, the use of zero-tolerance policies in schools rapidly increased, with public support cemented by several widely publicized mass shootings (e.g., Columbine High School) and dire predictions of a new hyperviolent "superpredator" (DiIulio, 1995). By 2000, 90% of schools nationwide reported having at least one zero-tolerance policy (Brady, Balmer, & Phenix, 2007), mandating suspension, expulsion, or police notification for behaviors ranging from drugs and weapons, to disrespect, disrupting school or classes, and defiance of authority (Advancement Project, 2000, 2010; Dunbar & Villarruel, 2002; Kupchik, 2010; Skiba & Peterson, 1999, 2000). The use of zero-tolerance policies in schools has continued to rise, despite a steadily declining juvenile crime rate.

Zero-tolerance policies have been accompanied by an increase in police presence in schools, encouraging justice system treatment of classroom conduct issues. The number of identifiable police officers in public schools rose from fewer than 100 in the 1970s to more than 2,000 officers in the 1990s (Portner, 1994). Between 1997 and 2007, the number of school resource officers increased again by 38% (Petteruti, 2011). In New York City alone, the 2005–2006 academic year saw 4,625 school safety agents and at least 200 armed police officers in schools, making the New York Police Department's School Safety Division the 10th largest police force in the country (New York Civil Liberties Union, 2007). Other jurisdictions, such as Palm Beach, Florida, have also created their own school-based police forces, blurring the boundaries between the educational and justice systems (Giroux, 2009; Hirschfield, 2008).

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The combination of the escalation of law enforcement officers in schools and the increase in zero-tolerance policies has had a profound impact on the way schools handle disciplinary matters. Between 1970 and 1990, the annual use of expulsion in public schools tripled to nearly 3.1 million students (Poe-Yamagata & Jones, 2000; Skiba, 2008), and between the 2002–2003 and 2005–2006 school years, suspensions in the United States increased by 250,000 (Advancement Project, 2010). One study found that 1 in every 14 students is now suspended during their time in school (Archer, 2009). In Philadelphia, out-of-school suspensions increased from 40 in academic year 2005–2006, to 1,078 during the 2008–2009 school year (Youth United for Change and Advancement Project, 2011).

The overreliance on exclusionary discipline has been found to have far-reaching negative implications for students. Overutilization of suspension, expulsion, police notification, and school resource officers (SROs) harms students in three primary ways: (1) by increasing arrests and juvenile or criminal justice involvement, (2) by "pushing out" students deemed to pose problematic behavior, and (3) by further disadvantaging already marginalized groups through the overtargeting of minority youth and youth with disabilities.

The most direct way that exclusionary discipline contributes to the school-to-prison pipeline is by creating direct links between school behavior and the juvenile or criminal justice systems. The number and rate of school arrests have increased dramatically in recent years, even as national juvenile crime rates have declined. Between 1990 and 2000, there were 4,563 school arrests nationally; between 2006 and 2007, the number increased to 12,918, an increase of over 280%. Further, about two thirds of these arrests were for misdemeanors, suggesting that the increase in school arrests is due in large part to the relabeling of nonserious behaviors as criminal (Advancement Project, 2010). The proliferation of SROs and police officers on school grounds significantly increases police surveillance of youth, encouraging the redefinition of typical adolescent behaviors as arrestable offenses (Cobb, 2009). Clayton County, Georgia, for example, reported a 600% increase in school arrests in the 3 years following the hiring of SROs (Advancement Project, 2010). Similarly, one study of five states found that, in four of the five, school referrals grew as a proportion of total referrals to juvenile courts between 1995 and 2004 (Krezmien, Leone, Zablocki, & Wells, 2010).

In addition, increasing the likelihood of arrest and justice system contact, zero-tolerance policies may lead to school dropout (sometimes known as "pushout"). Research has consistently identified suspension and expulsion as risk factors for later dropout (Advancement Project, 2010; Archer, 2009; Arcia, 2006; Balfanz & Boccanfuso, 2007; DeRidder, 1991; Elkstrom, Goertz, Pollack, & Rock, 1986; Felice, 1981). In fact, suspension was the single best predictor for female dropout in one study (Wald & Losen, 2003). Students report having difficulty in obtaining homework assignments while suspended, as well as having difficulty catching up on assignments after the suspension ends (Ali & Dufresne, 2008). Further, students who are expelled from school may have difficulty reenrolling in new schools, as there is no requirement for states to offer alternative educational programs for youth who have been pushed out of traditional schools (Blumenson & Nilsen, 2003).

A final consequence of zero-tolerance policies is their disproportionate impact for youth of color, students from impoverished communities, and those with disabilities, populations that already are more likely to penetrate the juvenile justice system. African American males appear to be the most heavily impacted by these policies, accounting for 17% of all school-aged youth, 37% of suspensions, and 35% of all expulsions (Scott, Regina, & Houston Barber, 2012). In New York City, Black students represented 33% of enrolled students, but 51% of those suspended for profanity and 57% suspended for insubordination. Moreover, special education students were 5 times as likely as general education students to be suspended (New York Civil Liberties Union, 2011).

Despite these negative effects of zero-tolerance policies and increased police presence for students, there is no evidence to suggest that such measures have been effective in improving school safety (Skiba, 2008; Skiba & Peterson, 2000). In fact, schools with high rates of suspension also have lower graduation rates, have lower school climate ratings, have lower test scores (Skiba & Peterson,

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1999), and lower academic achievement scores, even after controlling for demographic variables (Skiba, 2008).

The problem of the school-to-prison pipeline may be reaching a critical mass, with a number of advocacy groups (e.g., the Advancement Project, Justice Policy Institute, New York Civil Liberties Union, National Association for the Advancement of Colored People) and several Juvenile Detention Alternatives Initiative sites calling for the repeal or reform of such policies. In New York State, the Division of Criminal Justice Services (DCJS) issued requests for proposals in 2009 for programs that narrowed the school-to-prison pipeline by offering school districts an alternative means of addressing classroom misconduct. One of the two programs that were funded as part of the initiative was the WISE arrest diversion program in Utica, New York.

In the remainder of this article, we examine the program's theory and design, participant outcomes, and school-level arrest outcomes. We implement several analytical techniques in a mixed-methods approach to best gauge the effectiveness of the WISE program. We conclude by drawing lessons from the program's implementation and results to develop prescriptions for other sites wishing to address the school-to-prison pipeline.

Method

The WISE Program

The WISE program was implemented under the Utica Safe Schools Healthy Students Partnership, Inc., a nonprofit agency, and supported in partnership with the Utica City School District and the Utica Police Department. The arrest diversion program targets youth who have committed a nonviolent arrestable offense on school property. The Diversion Coordinator, stationed at the high school, monitors disciplinary calls on a walkie-talkie and is present as SROs escort students from the classroom. If the offense fits the program criteria, the Coordinator advocates for diversion and a team consisting of the WISE Diversion Coordinator, a school administrator, and representatives from the Utica Police Department review the case to determine eligibility for the program. Referring offenses to the program are low-level arrestable offenses, including harassment, fighting, trespassing, disorderly conduct, petit larceny, or possession of marijuana.

One of the more unique aspects of the program involves the regular team meetings to review cases for admission. Before the WISE program was implemented, there were no formal opportunities for representatives of community-based youth-serving organizations, the School District, and the police to come together to discuss the most appropriate response to school misconduct. As will be discussed in greater detail, this required the buy-in of all parties but especially the police chief, who worried that school crimes would increase if students received no consequences for minor misconduct. To maintain that buy-in, the program director specified that all parties at the table must agree that the case was appropriate for diversion to be admitted to the program.

Once enrolled, the youth participates in a meeting with his or her parent/parents, school officials, SRO, and sometimes, the victim of the offense. There, all parties agree to a contract which dictates the required actions of the youth, including participation in the WISE program for the remainder of the school year, regular attendance at school, and could include community service, restitution, or an apology.

While involved in the WISE program, youth are provided with a number of academic wraparound services, include tutoring, mentoring, attendance checks, and daily check-ins with the WISE staff during the school day. In addition, many students enrolled in the diversion program are required to attend an after-school program called "The Underground Café" for several hours each week. While at the Underground Café, youth receive help with homework and are encouraged to utilize the games, recording equipment, art supplies, television/radio, and other entertainment in the space.

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Organized activities such as basketball and dance or art courses are also offered. In addition, The Underground Café serves as a safe space for youth who are not enrolled in the program, but need a place to go after school. The Underground Café is open on weekdays from 3:00 p.m. to 6:00 p.m.

The WISE program's theory operates at two levels. First, it targets students to promote improved school performance and conduct by offering academic and attendance support. Second, it targets schools to offer an alternative means of addressing student conduct. At this school level, the program addresses both the problems of zero-tolerance policies and increased police presence by allowing administrators more discretion in how they address nonserious conduct and placing SROs in a new role as a member of a diversionary team. The extant literature on the school-to-prison pipeline suggests that the provision of nonpunitive tools may be even more important than addressing student behavior, since most of the young targets of exclusionary discipline have engaged in nonserious conduct that would have, before the era of zero-tolerance policies and increased police presence, been addressed informally. We would expect the program, then, to be effective because it addresses both ends of the problem. However, we might expect the program's results to be more apparent at the school level than the student behavior level.

Because our analysis of the effects of the WISE program on in-school arrests focuses exclusively on Upstate High School, we provide a brief description here. Upstate High School, the only public high school in the Utica City School District, enrolls over 2,500 students (New York State Department of Education, 2012). Oneida County, where Utica is located, is home to the fourth largest refugee population in the United States; as a result, the school is home to an extremely diverse student body, with over 40 languages spoken (Mohawk Valley Resource Center for Refugees, 2013). Our interviews conducted with program staff and stakeholders suggest that Upstate High School has a "reputation" for student conflict. Moreover, it appears to be an appropriate target for school-to-prison pipeline programming, since its rate of "less serious" incidences reported to the state places it 10th among public high schools in New York State outside of New York City (Fader, Schall, & Stokes, 2012; New York State Department of Education, 2012).

Data

The data analyzed to evaluate the WISE program originated from several sources. Our first set of measures, representing attendance, grades, and disciplinary referrals, were drawn from the Utica City School District's online student databases and were collected by program staff and administrators.[4] These were designed to measure the first prong of the program theory: addressing student behavior. In addition to these student-level data, the program's second prong of providing schools with alternatives to arresting students for nonserious offending was measured by examining school-based arrests before and after the program's implementation. Utica Police Department provided school-level monthly reports of the number of arrests, incident reports, calls for service, fights, removals, and student escorts by SROs or security personnel for Upstate High School and the two middle schools. These allowed for annual comparisons of in-school arrests between a 5-year preprogram baseline (academic year [AY] 2005–2006 to 2009–2010) and the 2 years of program implementation (AYs 2010–2011 and 2011–2012), as well as a time-series analysis that examined monthly changes in arrests at Upstate High School. Citywide juvenile arrest figures, used as a control in the multivariate analysis, were provided by the New York State Division of Criminal Justice Services (DCJS, 2012).

Finally, we conducted interviews with the WISE Program Director, Diversion Coordinator, Safe Schools Specialist, SRO/Police Liaison, Safety and Security Coordinator for the School District, and a community partner from the City of Utica's Office of Urban and Economic Development. These allowed us to identify implementation issues that, if addressed or avoided early, could lead to improved outcomes for similar programs implemented elsewhere.

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Although we do not draw on these heavily, we also conducted interviews with 17 Upstate High School students, 8 of whom were in the WISE program and 9 of whom were peer conflict mediators in another Safe Schools program.

Analytic Plan

Using the data sources noted previously, the research design employed to evaluate the effectiveness of the WISE arrest diversion program combines a variety of research methods. The first component is a pretest/posttest design that compares several outcomes for program participants, including attendance, grades, and disciplinary referrals, before and after they received program services. These analyses included the full sample of 85 participants from the high school and two middle schools. Paired sample *t*-tests were used to test whether the mean change from intake to discharge on attendance, grades, and disciplinary referrals was statistically significant. The proportion of participants demonstrating substantial improvement was noted. Baseline measures were drawn from the academic year before the student was engaged in the program. Additionally, we report program completion and new arrests generated while attending the program.

As change measures were constructed, we identified a small number of outliers that skewed the results. We used a standard definition of an "outlier" as any value that was greater than 3 standard deviations (*SD*s) from the mean value for that item. We removed these outliers for the main analysis of pre/posttest differences, but compared analyses with outliers and found no meaningful differences.

Once it became apparent that arrests had declined at Upstate High School between the baseline and postimplementation periods, the challenge was to address the fact that in-school juvenile arrests were already declining, both across the 5-year baseline period and at the citywide level more generally. The number of arrests at Upstate High School varied from an annual high of 51 to a low of 10 within the baseline period, with at 35% reduction between academic year 2005–2006 and 2009–2010. Moreover, the number of juvenile arrests in Utica decreased by 38% between calendar years 2005 and 2009 (DCJS, 2012). We needed to gauge how much of the decline in school arrests could be attributed to the program itself and how much would likely have happened without the program. We did this by using a multivariate statistical model that allowed us to parse out the effects of both time and overall citywide juvenile arrests in Utica. The data analyzed are organized into units of analysis representing months, with a sample size of 71 months.

To do so properly, we were cognizant of both the time-series nature of the data and of the count-based format of the dependent variable: student arrests per month at Upstate High School. Regarding the count metric of the dependent variable, we determined that the commonly used ordinary least squares (OLS) model would be inappropriate. Researchers have shown that count-based dependent variables should not be analyzed by regression techniques that assume normality and can result in biased estimates of effects (Long & Freese, 2006). As a result, a growing number of studies in criminology have utilized Poisson-based regression models to account for the often nonnormal distributions of count data (Braga, Pierce, McDevitt, Bond, & Cronin, 2008; Greenberg & Roush, 2009; Lockwood, 2012), with Osgood (2000, p. 41) noting that such models "free researchers to investigate a much broader range of aggregate data because they are appropriate for smaller population units and less common offenses." Indeed, as will be shown when commenting on the descriptive statistics, the dependent variable to be analyzed in the current study is both sparse and overdispersed. The next step necessitated the selection of a Poisson-based regression model with which to analyze these count data. Based on the overdispersed nature of the data and the prevalence of zeroes, it was believed that a negative binomial regression model (NBRM) would be most appropriate. This was subsequently confirmed through the results of diagnostic tests comparing the model fits for multiple types of Poisson-based regression models.[5]

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With this decision made it was then imperative to consider the misestimation that could occur due to the time-series nature of the data. With predictors spanning across nearly 7 years in monthly increments, several potential issues had to be accounted for before proceeding with an NBRM. First, there are three known sources of noise when analyzing time-series data that can serve to mask the effects of an intervention: trend/trends (the counts of the dependent variable could increase or decrease for reasons beyond the intervention), seasonality (counts could increase or decrease due to issues related to the time of year, which has been confirmed in prior studies of crime (Hipp, Curran, Bollen, & Bauer, 2004; Sorg & Taylor, 2011), and random error (Braga, 2008). To control for these potentially confounding factors, several steps were undertaken. To address seasonality, a dummy variable for each month is added to the NBRM in order to control for the association of any months of the year with increased or decreased counts of school arrests.[6] To account for simple trends in the arrest data across months, two predictors were entered into the NBRM that represent the linear number of the month (the first month has a value of "1" for which we have data, while the final month has a value of "71"), which is consistent with prior studies of similar crime-related time-series data (Braga, 2008; Braga et al., 2008).[7]

Before estimating an NBRM, multiple analyses were conducted to identify any potential issues related to serial autocorrelation in the data (such an issue would exist if the count of school arrests in September 2005 was significantly associated with the count in October 2005, and so forth through the subsequent months). First, we ran autoregressive integrated moving average (ARIMA) models to determine whether such serial autocorrelation in monthly school arrest counts existed during the 49 months prior to the implementation of the WISE program. The ARIMA analysis did not detect any significant serial autocorrelation; therefore, an autoregressive term was not included in the NBRM. Further, a Dickey–Fuller test indicated that the data are stationary and that no unit root exists in the data, which suggests that there is no need to engage in any differencing or smoothing. Finally, an OLS model was estimated with the preintervention data that estimated the effects of citywide juvenile arrests in Utica, NY, the two trend variables, and the nine monthly dummy variables in order to calculate a Durbin–Watson value. The results of the Durbin–Watson test (value = 1.774) indicate that no first-order serial autocorrelation exists among the data.

We conclude by examining excerpts from interviews conducted with WISE program staff and system stakeholders. These highlighted a number of implementation issues that could be of use to other jurisdictions planning to sponsor or develop similar diversionary programs.

Results

Description of Program Participants

The WISE arrest diversion program served 85 program participants in academic years 2010–2011 and 2011–2012. The majority (71%) of program participants were students at Upstate High School. The remainder was referred from the two middle schools and the elementary school. Table 1 describes the characteristics of the youth served by the program. The mean age of program participants was 15 years. Over half (60%) were male and two thirds belonged to racial/ethnic minority groups.

As Table 1 suggests, grades (which are based on a scale of 0–100, with 100 as a perfect score) were in the D range, with a mean of 67%. On average, participants had generated two disciplinary referrals during the academic year before they were admitted to the program. Attendance appeared to be a particularly serious problem, with the average incoming participant having missed more than 9 days during the previous academic year.

Table 2 tabulates the charges for which WISE arrest diversion participants were referred to the program. The largest group of students (39%) was referred for harassment, ostensibly of peers,

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Table 1. Description of WISE Program Participant Characteristics at Intake.

Characteristic	Value
Age (*M*)	15.4
Male	60
African American	49.4
Hispanic	15.3
Asian	2.4
Grades	66.79
Disciplinary referrals	2.38
Attendance (missed days)	9.32

Table 2. Referring Charges for WISE Program Participants.

Charge	Percentage of Participants
Larceny/theft	14.12
Disorderly conduct	9.41
Fighting	10.59
Harassment	38.82
Menacing	2.35
False report	1.18
Public lewdness	3.53
Trespassing	5.88
Unlawful possession of marijuana	9.41
Weapons	4.71

teachers, or school staff. Another 13% were referred for larceny/theft, 11% for fighting, and 9% for unlawful possession of marijuana, a violation that involves a small amount of marijuana likely for personal use. Middle school students were particularly likely to be referred with charges of harassment and unlawful possession of marijuana, although they represented two of the four weapons charges.

On their face, these charges appear to be consistent with the program's target population: students committing arrestable nonviolent, nonserious offenses. However, these categories are broad and likely contain much variation in the nature and seriousness of the behavior that generated the charge. A "weapons" charge, for example, can mean almost anything in the context of zero-tolerance school policies, as 6-year-old Zachary Christie found in 2009 when he was suspended from his Newark, Delaware, elementary school after bringing a camping utensil that contained a knife, spoon, and fork to school (Urbina, 2009). Arrest diversion programs can only be effective if they target behavior that would have otherwise generated arrests and avoid "net widening" by reclassifying nonserious behavior as arrestable. We will return to this issue when we examine changes in the number of arrests at the WISE program's target schools before and after implementation of the program.

Outcomes

Program Prong #1: changes in school conduct. Table 3 summarizes the pre- and postprogram measures of school conduct for students in the WISE arrest diversion program. Comparing the mean school conduct measures before and after the program using paired *t*-tests, however, we find no change in attendance, grades, or disciplinary referrals that reaches the traditional threshold of statistical significance of $p < .05$. It should be noted that statistical significance is sensitive to sample size (N), so

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Table 3. Pre–Post Changes in School Conduct, WISE Arrest Diversion Participants.

	N	Baseline Mean	At Close Mean	Mean Change	SD	Statistical Significance	Substantial Improvement
Grades	82	66.79	66.68	0.11	7.37	.893	11% ≥ 10 higher grade points
Disciplinary referrals	73	2.38	1.70	−0.69	3.31	.081†	15% ≥ 3 fewer referrals
Attendance (missed days)	76	9.32	8.84	−0.47	7.95	.605	26% ≥ 5 fewer missed days

*$p < .05$, †$p < .1$.

it is important to acknowledge small but perhaps meaningful changes that occurred in the number of disciplinary referrals, which reached the $p < .1$ level of statistical significance. While mean grades evidenced negligible change, the number of missed days declined from 9.3 to 8.8, and the average number of disciplinary referrals declined from 2.4 to 1.7. It is interesting to note that, of the three school conduct measures, disciplinary referrals could either be a product of student misbehavior or of zero-tolerance teaching practices. Indeed, several of our interviewees were in agreement that teachers at Upstate High School had very little patience for misconduct and relied heavily on SROs to respond to disruptive behavior.

In addition to examining the average magnitude of change, we can identify the proportion of program participants who demonstrated a substantial improvement in school conduct. This analysis finds that 11% of WISE arrest diversion students improved their grade point average (GPA) by at least 10 points and another 12% improved grades by 5–9 points. Over one quarter (26%) improved their attendance by at least 5 days from the prior academic year, while 11% improved by 3 or more days. Finally, 15% of WISE arrest diversion participants generated at least three fewer disciplinary referrals, 15% improved by two referrals, and 27% demonstrated a reduction by one disciplinary referral after participating in the program.

We disaggregated mean changes in school conduct measures by gender to explore whether there were differences in the level of improvement demonstrated by girls and boys. No statistically or substantively significant gender differences were detected in grades or attendance. However, we found an interesting pattern with regard to disciplinary referrals. While boys' referrals decreased significantly, from a mean of 2.76 at baseline to 1.39 at discharge ($N = 46$, SD 7.88), girls' referrals actually increased slightly from 1.74 to 2.22 ($N = 27$, SD 3.67) from the baseline to program discharge.

A similar, albeit puzzling, pattern emerges when examining dosage response differences. Those who were in the program for 3 or fewer months saw a significant reduction in disciplinary referrals, from 2.43 at intake to 1.10 at discharge ($N = 40$, $SD = 2.66$), while the participants receiving 4 or more months of services saw a slight, nonsignificant increase in referrals from 2.33 to 2.55.

Interviews with WISE program participants suggested that they perceived that the program, particularly the Underground Café, offered diversionary benefits that carried outside of the school setting:

> Cause I'd be having a lot of time on my hands. I don't have nothing to do, so I come down here, chill out. Soon as I get done out of here, I'm going home, shower and sleeping.—Age 18

> Well, it's kind of made a difference—if I probably wasn't here or at the Boys and Girls Club, it keeps me off the streets a lot. Like I probably would be gang banging or staying in trouble, fighting, stuff like that.—Age 14

> I would be outside doing something I'm not supposed to, chilling with people that I shouldn't be chilling with. And just getting into trouble.—Age 18

For these reasons—and because they genuinely enjoyed their time in the program—the only recommendation they gave for improving the program was to keep the Café open later.

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Other Student-Level Outcomes: Program Completion and Postprogram Reoffending

One of the most impressive outcomes demonstrated by the WISE arrest diversion program is that, over 2 years, 78 of the 85 participants (92%) completed the program by fulfilling the terms of their program contract. Contract terms typically included participation in the program and completing the school year without further disruptive behavior. Students had a powerful incentive to complete the program, since an arrest report had already been written up and was kept on file, with the ever-present possibility that it would be submitted if they failed to comply. Half (3) of the noncompleters left the program because they moved away from the school district or were placed in a different school district. Importantly, only three (3.5%) were rearrested during the program. This low incidence of reoffending suggests that the diversionary effects of WISE lasted throughout their tenure in the program. It also likely reflects the nonserious nature of the referring offense. However, students were not systematically tracked for new offenses after program discharge.

Program Prong #2: offering schools an alternative to in-school arrests. As noted previously, one way to address the question of whether the WISE arrest diversion program worked with students who exhibited school conduct that genuinely would have led to an arrest, as opposed to opening up avenues for net widening, is to examine whether the rate of in-school arrests at Utica schools decreased between a baseline period and the period of program implementation. If the program targeted those who would not have been arrested prior to implementation, we would expect no change in arrest rates or even an increase generated by arrests of program participants who failed to successfully complete the program.

We evaluate the second program prong—providing schools with an alternative to arrest—by examining school-based arrests over time. We use a 5-year baseline to capture a longer term picture of arrests. We exclude the middle and elementary schools from the analysis because the WISE program served a very small proportion of those schools' populations and any schoolwide changes are unlikely to be attributable to the program. More importantly, the incidence of arrest at the two middle schools was so small (most years it was 0) during both the baseline and implementation periods that demonstrating positive change would be nearly impossible.[8]

Despite an increase in the number of arrests during the second year of program implementation at Upstate High School, mean changes between the baseline and 2-year program period reflected in Table 4 reveal substantial reductions in in-school arrests after program implementation. The arrest rate, which controls for minor changes in Upstate's enrollment, declined from an average of 1.18 per 100 students during the 5-year baseline to 0.69 during the program's implementation, a reduction of 42%. Moreover, the mean number of monthly arrests declined from 3.14 during the baseline period to 2.05 during the program period, a reduction of 35%. In the next step, we move beyond this simple description to a more sophisticated time-series analysis that controls for citywide juvenile arrests and examines monthly changes in arrests at Upstate High School.

Before interpreting the results of the NBRM, it is instructive to examine a visual of the change in arrests at Upstate High School by month over the course of the approximately 7-year study period. Figure 1 first indicates that the count of arrests per month fluctuated between a low of 0 through a high of 10 in 1 month during the study period. More pertinent for the current evaluation is the decreasing trend of arrests suggesting that the count of arrests was reduced in the period of time when the intervention was provided (October 2010 through November 2012), compared to the nearly 5 years measured before the WISE program's implementation. As is shown, the counts of arrests per month are visibly reduced after the implementation of the WISE program (denoted by the dotted vertical line). This, however, is certainly

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Table 4. Arrests at Upstate High School, Utica.

Measure	Number	Rate Per 100 Students	Monthly Mean
AY 2005–2006	51	1.99	5.1
AY 2006–2007	38	1.48	3.8
AY 2007–2008	21	0.83	2.1
AY 2008–2009	10	0.39	1.0
AY 2009–2010	33	1.24	3.7
Baseline mean	30.6	1.18	3.14
AY 2010–2011	13	0.49	1.4
AY 2011–2012	24	0.90	2.7
Implementation mean	18.5	0.7	2.1
Change	−40%	−42%	−35%

Note. AY = academic year.

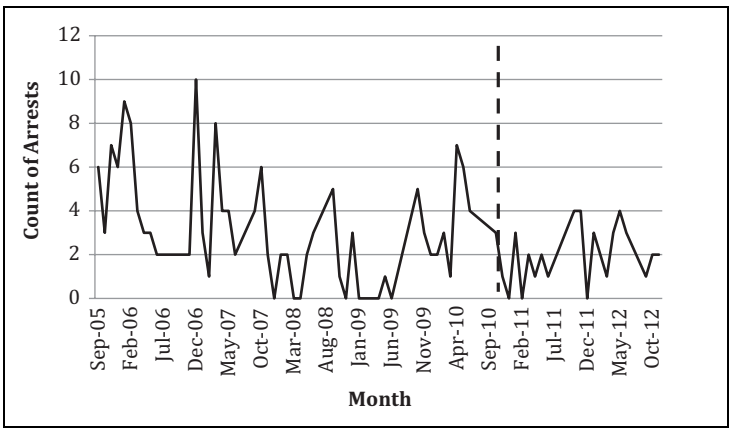

Figure 1. Counts of school arrests in upstate high school, by month.

not sufficient proof that the program was successful, and so we move on to the multivariate analysis.

The results of the NBRM are displayed in Table 5. We have chosen to report incident rate ratios (IRR), as they represent intuitive values with which to interpret the effects of the predictors on the count of school arrests. IRRs deviating from 1.0 indicate an increase or decrease in the count of the dependent variable by a factor of the deviation for each unit change of the predictor while holding all other variables in the model constant. For example, an IRR of 1.75 for a predictor signifies that the count of the school arrests increase by a factor of 1.75, or 75%, for each unit increase of that variable. In contrast, an IRR of 0.75 signifies that the count of school arrests decreases by 25% for each unit increase of that predictor.

The results shown in Table 5 indicate that the WISE program has a relatively large effect size (IRR = 0.40, $p = .08$) in the form of a 60% reduction in school-based arrests. Although this is not statistically significant at the customary α level of .05, it would be significant if the α level was raised to .1. Both the p value and the effect size that suggest the influence of the program on school arrest reduction (IRR = 0.40) merits an assessment of the program as "promising" in its goal of arrest diversion. Of the additional control items, only the two trend predictors exhibit significant associations with the count of school arrests at Upstate High School.

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Table 5. Results of Negative Binomial Regression Model of School Arrests and WISE Program Implementation.

			95% Confidence Interval	
	IRR	*SE*	Lower	Upper
WISE program	0.40†	0.21	0.14	1.13
Citywide juvenile arrests	1.00	0.01	0.99	1.02
Trend	0.94**	0.02	0.90	0.98
Trend^2	1.00**	0.00	1.00	1.00
January	1.11	0.42	0.53	2.33
February	0.79	0.32	0.36	1.74
March	0.82	0.33	0.37	1.79
April	0.95	0.37	0.44	2.04
May	1.16	0.44	0.55	2.46
June	0.78	0.32	0.35	1.74
September	0.95	0.39	0.43	2.11
October	1.18	0.44	0.57	2.45
November	0.87	0.33	0.41	1.84
Intercept	3.81	4.60	0.36	40.50

Note. IRR = incident rate ratio; *SE* = standard error.
*$p < .05$, **$p < .01$, ***$p < .001$, †$p < .1$.

Implementation Issues: Lessons Learned From Staff and Stakeholder Interviews

One of the most unique features of the WISE program is that it brought a diverse group of stakeholders—community-based youth-serving organizations, the School District, and the police—together to discuss appropriate responses to school misconduct. Thus, the regular meetings to review admissions to the program were the first opportunity for these representatives to develop a shared vision about the importance of keeping students in school. Bringing these stakeholders to the table involved earning their buy-in, particularly from the police chief who worried that the program would amount to a slap on the wrist, weakening accountability and ultimately increasing the amount of misconduct at the school. The Program Director reported that buy-in involved assurances that (1) admission would be restricted to candidates about which all members of the review team were in agreement about their appropriateness for the program, (2) that any youth failing to meet their contract terms would be referred back for arrest, (3) and that the police department and school district would be able to share the burden of addressing school conduct, reducing their workload.

Moreover, the Director made appeals to each stakeholder group by identifying "what's in it for them":

> While our focus is indeed on helping the child, we need to articulate to our potential partner how this will help them. For example, with school districts we focus on the fact that our programs and services significantly improve: school attendance (which affects state aid), student behavior (by reducing office disciplinary visits and saving their staff valuable time) and grade point averages (which looks good on state/federal reports)—all of which contribute to higher graduation rates. Keeping in mind how our partners see the problem and what we can do to help them is an important element that we always try to keep in mind.

After the program was operational for some period and the program reported positive results, buy-in appeared to have been solidified. One of the most outspoken self-identified "converts" was the SRO Liaison:

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> And I've got to say, in the beginning when I sat down, I was very skeptical of this. I've been working for [the School District] for 17 ½ years so I've seen quite a bit. And when [the Program Director] first said why don't we [provide them an alternative], I'm like, you're not going see a change in them, you're not going to help them, they're not going to care. But within the year and a half that I've been doing it, you could see the change. It is actually making them a little more responsible. And the café here, we have a bus that picks up the kids from the school and brings them and they love it. I mean, it's really taken off. I think we went from one bus to two now.

Two stakeholders who did not seem to buy-in, however, were teachers and parents. Teachers were not included in the team review meetings, nor did they seem to be aware of the program. Both students and the SRO Liaison frequently noted that teachers utilized heavy-handed approaches to discipline rather than working to divert students into alternative programs. One peer mediator told us:

> The teachers, they just get on the phone and call a security guard. [The kids] get suspended. That's not helping. I think a teacher should—all right, you're a teacher for a reason. You're here to help the kids, teach them, give them an education and to help them with a lot of things. Like you got trained to do this. Don't let them out the easy way. Don't let them get suspended. Don't let them go to jail. But like people look at kids like as low lifes because they get in trouble a lot. Like you need people to help them. And these teachers in Upstate, I feel a lot don't help.

The SRO Liaison confirmed this sentiment, saying:

> The teachers see us as their stick. You don't do what I say, I'm not going to bother with you, I'm going to get the stick and then we'll do it that way.

However, the same Liaison pointed out that teachers could be a helpful referral source because they are in a unique position to know which youth are most in need of services:

> This way, if they had something in class, they'll say, "Oh, you know what? This is my outlet. This is what I can do to this kid." Rather than saying, "Security, security, security." Let's get them some help. They see the kid every day, all day. They know if this kid needs anger management. They know if this kid needs some type of mediation. I see them in the halls. I'm the last one to know who this kid is or what he does.

Similarly, although parents and caregivers had to consent for their child to participate in the program, the staff lamented their lack of involvement in the program. This is a common problem for most community-based youth-serving programs, perhaps even more among those who serve crime-involved youth. There is one aspect of the program design, however, that appeared to discourage family involvement. When the WISE program approached parents and caregivers for permission, their child's participation was framed as the only alternative to arrest. Parents likely felt coerced to comply, eroding the possibility of building trust with program staff. This problem became apparent when the authors of the present study sought parental consent for interviews with the participants and there was initially limited response. The foundation of the relationship between families and the program implied a threat.

Another implementation problem that became apparent during stakeholder interviews was the degree to which student privacy laws (specifically, Family Educational Rights and Privacy Act [FERPA]) prevented diversion team members from sharing information about the program participants. School District personnel were unable to regularly share school data to help guide decisions about candidates for the program and, perhaps even more concerning, the SRO Liaison was never apprised of the details of the diversion contract or the student's progress in the program. He reported,

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"I think we just need to know if they're living up to that contract because our case is still open and until yours is closed, ours isn't closed." As we note in the section on study limitations, FERPA also prevented the evaluators from having access to comprehensive data on the program participants.

A final consideration has to do with targeting elementary and middle school students for arrest diversion. The Utica Police Department data enumerating arrests in schools suggest that the two middle schools each had zero arrests in the year prior to implementing the program (and, ironically, four in the first year of implementation). No arrest data were provided for the elementary school. This suggests a lack of justification for targeting the middle and elementary schools. Moreover, we find that all four of the elementary school students were admitted in May (the last month of the academic year and the program's contract), in an apparent push to meet the number of admissions that had been promised to the funders. This type of net widening is in direct contradiction to the objectives of any diversionary program.

Discussion

Summary of Findings

The WISE arrest diversion program is designed to identify students with a nonviolent, nonserious arrestable offense, and divert them from arrest in two key ways: (1) by providing students with academic wraparound services such as attendance checks, daily check-ins at school by a supportive adult, tutoring, and after-school recreational activities designed to prevent further school misconduct and (2) by offering school administrators an alternative to zero-tolerance policies, allowing them a greater degree of discretion and affording SROs a new role in the process.

Pre- and postprogram measures of school conduct suggest that many students experienced improvements in grades, attendance, and disciplinary referrals but that those improvements were generally small and were—when examined as average magnitude of change across all participants—often nearly offset by students with no change or worsening student conduct. There were some notable substantial improvements, however, including 26% of participants who missed at least five fewer days of school, 11% who improved their GPAs by at least 10 points, and 15% who generated at least three fewer disciplinary referrals.

Although we found no gender differences or dosage response differences in attendance or grades, we found that disciplinary referrals generated by girls increased in the program, masking a significant decrease in boys' referrals. It may be that boys are particularly responsive to the program, perhaps because the key staff members were also male. Moreover, we found that participants who stayed in the program for 3 months or less demonstrated a significant decrease in disciplinary referrals, while those in the program for longer periods of time saw a small nonsignificant increase. This may suggest that short periods of intervention are most effective, particularly for this nonserious, nonviolent group of youthful offenders. It should be noted that disciplinary referral is the only measure of school conduct that is as likely to be the product of teacher and administrator response as it is to actual student conduct. Our interviewees agreed that teachers at Upstate High had a particularly low tolerance for misbehavior.

Although these student-level outcomes suggest small average improvements, the school- and program-level outcomes for the WISE program are much more easily apparent. Only 3 of the 85 participants were rearrested while in the program. Moreover, 92% of the program participants successfully completed the program by meeting the terms of their contract, including participation in the program.

Despite an increase in the number of arrests during the second year of program implementation, mean changes between the baseline and 2-year program period reveal substantial reductions in in-

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school arrests after program implementation. Establishing a causal connection of program activities to these outcomes is challenging in the context of generally declining juvenile crime rates.

To account for potentially spurious relationships, we also conducted a multivariate analysis in which we estimated an NBRM that controlled for pertinent factors, such as the citywide juvenile arrest rate per month and the month of the year, to isolate the effects of the WISE program on juvenile arrests per month at Upstate High. The results indicate that the implementation of the WISE program was indeed associated with a monthly reduction in school arrests, as predicted. The odds ratio of 0.40 expressed in Table 5 specifically indicates that arrests dropped by approximately 60% in the months after the WISE program was initiated in Upstate High School. This relationship must be interpreted with caution, however, as the α level for determining significance must be inflated to .1 in order to declare that a significant relationship exists between the implementation of the WISE program and a decrease in school arrests. Nevertheless, this portion of the analysis strongly suggests that the WISE program was associated with decreased arrests in Upstate High School, net of other pertinent factors.

Study Limitations

This evaluation contains inherent limitations associated with using a quasi-experimental design. That is, we cannot say for certain that the program caused the small changes we saw in youth conduct before and after the program, nor can we conclude that the program was responsible for the decrease in arrests at Upstate High School. We have addressed the second issue in the best way possible, by using an NRBM model that controls for the potentially spurious effects of time and the already-declining citywide juvenile crime rate. It should be noted that the sample size ($n = 71$) is relatively low for the use of negative binomial regression. However, we did not feel that the sample size was sufficiently low to preclude the use of such models. Future researchers should consider increasing the length of the follow-up period in order to increase the statistical power by which to analyze the impact of similar interventions. Second, the current analysis did not control for additional factors that might have been linked to fluctuations in school arrests, such as changes in leadership or in school climate more generally.

Several of the other study limitations stem from the inclusion of the research team toward the end of the program's contract and implementation period. Stages of the process that could have generated data points were overlooked by program staff, who were, after all, not trained researchers. Data on youth who were referred to the program but rejected, for example, would have allowed us to develop a clearer picture of exclusion criteria used by the diversion team and selection criteria into the program. A tracking system of youths' receipt of specific services, including frequency, would provide us with better dosage–response measures. Follow-up data tracking outcomes after discharge from the program would have allowed for an assessment of the lasting program effects.

The lack of data on youths' background characteristics resulted from the School District's enforcement of FERPA. With only the most basic data on participants' age, gender, and race, few analyses could be performed that would allow for the identification of the type of youth that demonstrates the best outcomes. As we have discussed, the lack of access to information on youth was also a barrier to service delivery, since neither the police nor the program staff had access to school information on the youth they served.

Finally, without additional data, we are unable to understand the processes behind the two puzzling findings regarding disciplinary referrals. Although it appears that male program participants exhibited a significant decline in the number of disciplinary referrals between baseline and program completion, it is unclear why they were affected differently than girls, whose disciplinary referrals went up slightly, though nonsignificantly. Moreover, improved data on the delivery of specific services across time could help us better explain why students who completed the program in fewer

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than 3 months demonstrated improvements in disciplinary referrals, while those in the program for 4 months or longer exhibited slight but nonsignificant increases.

Conclusion: Implications for School-to-Prison Pipeline Programming

Although the WISE program's outcomes were modest, the findings discussed previously and interviews conducted with system stakeholders may offer some valuable lessons for other schools and jurisdictions planning to implement initiatives to narrow the school-to-prison pipeline. First, the two-pronged approach used by the WISE program may tell us something about whether it is kids or schools that are the driving force in supporting the school-to-prison pipeline. At one level, the program targeted youth involved in nonserious but arrestable behavior by attempting to improve their performance, attendance, and behavior in school. At the other level, it targeted schools themselves to promote "wiser" arrest policies by providing an alternative to arrest. It seems clear that the WISE program was more successful at the school level than it was at the student level, since the program appeared to be responsible for a modest decline in school-based arrests (prong #2) but no significant improvement in attendance, grades, or disciplinary referrals (prong #1). This suggests that the source of the problem of the school-to-prison pipeline lies less with students than it does with school policies to address the typical behavior of students. This is, of course, consistent with the school-to-prison pipeline literature, which points out the expansion of zero-tolerance and exclusionary policies to students presenting nonserious forms of school misconduct. Nevertheless, the program would have very likely been politically unpalatable if it had framed the problem as primarily one of the problematic responses to student behavior by SROs, administrators, or teachers.

Interviews with WISE staff members and stakeholders suggested that bringing a diverse group of stakeholders together to review potential candidates for the program was both challenging and worthwhile. Although the Program Director reported having to appeal to each stakeholder to demonstrate "what's in it for them," the program's apparent positive results led the other stakeholders—particularly the SRO Liaison—to become enthusiastic supporters. The ability to bring these different stakeholders to the table was likely facilitated by the small size of the jurisdiction, which contained a single high school and two middle schools, and the fact that the program director was a former Police Sergeant for the Utica Police Department.

These interviews suggest that involving teachers in the process would both make them better aware of the WISE program as an alternative to relying on SROs to address classroom misconduct and benefit the diversion referral process because of their background knowledge of students. Moreover, if teachers were aware that they had students enrolled in the WISE program, they may be encouraged to provide additional supports that complemented the program's efforts, resulting in greater improvements in the student-level outcomes such as grades and attendance. The process would clearly benefit from some suspension of the FERPA requirements such that all stakeholders could freely share information about students' backgrounds and level of participation in the program.

Parental involvement could also likely be improved if the program was not framed as a threatening alternative to arrest. The barriers to parental involvement may be yet another reason why the program was less effective in promoting student-level changes than it was in promoting school-level policy shifts (which require no parent involvement). With parent/guardian buy-in to the program, they could also be a source of support and reinforcement of the lessons imparted by the program staff.

Finally, we question the utility of arrest diversion programs targeted at middle or elementary school students. Although other jurisdictions may have more arrest activity in the elementary and middle schools than Utica, the low base rate of offending in these schools would likely make demonstrating measurable change very difficult. Moreover, as in the case of the WISE program, dipping

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into the middle and particularly the elementary school pools appeared to actually widen the net, since all of the elementary student admissions to the program came in May as part of an apparent push to meet contractual admission goals.

Considering all the evidence, we assess that the WISE arrest diversion program—particularly for high school students—is an innovative and promising approach to narrowing the school-to-prison pipeline. Although the pre- and postprogram measures of student conduct were small and did not reach traditional levels of statistical significance, a subgroup of participants demonstrated substantial improvements in their grades and attendance records, and a drop in disciplinary referrals. Program completion and participant recidivism measures indicate a high degree of success. Most importantly, reductions in school arrests (at Upstate High School) were determined to be substantial by several portions of this analysis, and although the results of the multivariate analysis must be interpreted with some caution, the WISE program is likely to have been at least partially responsible for this positive outcome. In short, the primary objective of arrest diversion seems to have been modestly achieved at Upstate High School, primarily through the provision of an alternative to school-based arrests.

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Notes

1. In New York State, the age of criminal responsibility is 16, so zero-tolerance and exclusionary school practices can lead directly to involvement in either the juvenile or criminal justice systems depending on a youth's age.
2. Although the program designers chose to capitalize the title of their program, WISE is not an acronym and instead is intended to suggest that the program helps promote wise arrest policies.
3. "Upstate High School" is a pseudonym generated for confidentiality purposes.
4. The researchers were not granted access to these databases because of School District officials' concerns about violating Family Educational Rights and Privacy Act (FERPA) policies. As a result, data transferred to the researchers were stripped of all youth identifiers.
5. First, the "countfit" command available in Stata 12 ran Akaike Information Criterion, Bayesian Information Criterion, and Vuong tests, which suggested that a negative binomial regression model (NBRM) would be most appropriate count model for this analysis. An initial NBRM supported this decision, with the likelihood ratio test and the value of the overdispersion parameter ($\alpha > 0$) also supporting the use of an NBRM over a Poisson regression model.
6. Nine such dummy variables are included in the negative binomial regression model (NBRM) analysis, with the month of December serving as the reference category.

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7. It is also important to note that concerns have been raised when estimating negative binomial regression model (NBRM) with small sample sizes (Lawless, 1987). While the arrest data examined in this study range over a nearly 7-year period of time, there are only 70 data points that are subsequently analyzed. To address this issue, we utilized a bootstrapping process (we ran a series of the same NBRMs with 250, 500, and 1,000 iterations) to show that the results are substantively the same as that which are presented in the Results section.
8. No school-level arrest data were collected at the elementary school.

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