The author(s) shown below used Federal funding provided by the U.S. Department of Justice to prepare the following resource:

Document Title:	**Effective School Staff Interactions with Students and Police: A Training Model (ESSI)**
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Document Number:	**305089**
Date Received:	**July 2022**
Award Number:	**2014-CK-BX-0003**

Project title: Effective School Staff Interactions with Students and Police: A Training Model (ESSI)

Grant number: 2014-CK-BX-0003

Grant Management

State of CT – Office of Policy and Management

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In 2012, Connecticut's Juvenile Justice Advisory Committee (JJAC) charged its School/Police Task Force with coming up with an approach to diverting students from the juvenile justice system without sacrificing school safety. Guided by the JJAC recommendation that "local education agencies should work closely with local law enforcement in developing policies and procedures in order to reduce over-reliance on arrest to handle school disciplinary matters," the School/Police Task Force developed the *Effective School Staff Interactions with Students and Police* (ESSI) training program.

Description, Piloting, and Early Evaluations of the ESSI Program

Effective School Staff Interactions with Students and Police is a one-day, approximately 5-hour, training designed for delivery by one school staff trainer and one police officer trainer in a classroom setting (about 25 participants in a session). Trainers use a variety of instructional techniques including slide presentations, video clips, class discussions, small group activities, and individual activities. This creates an interactive environment that builds on participants' existing knowledge and provides opportunities for them to share and learn from each other. The goals of the training are to:

- **Increase** school staff knowledge of:

  o Youth behavior

  o Strategies for interacting effectively with students,

  o The role of law enforcement in schools, and

  o How the juvenile justice system works.

- **Increase** school staff awareness of disproportionate minority contact (DMC) within the school disciplinary and juvenile justice systems.

- **Improve** school staff attitudes toward students exhibiting inappropriate behavior.

- **Increase** the likelihood that interactions between school staff and students exhibiting inappropriate behavior will have positive outcomes for students and reduce involvement of police.

- **Increase** the likelihood that disruptive students will respond positively toward school staff.

Piloting of this program occurred in June and October of 2012. These pilot trainings were evaluated with the goals of assessing changes in school staff knowledge and attitudes towards students and police. A total of 130 school staff participated in the training between October and December of 2012. In addition, each participating school district submitted a separate list of school staff to participate as members of the comparison group.

A questionnaire was administered to the training group immediately before the training (i.e., pre-test survey) and immediately after the training (i.e., post-test survey). Training group participants also were asked to complete a follow-up survey 5 to 7 months after completing the training. Comparison group participants completed surveys during the pre-training and follow-up period. The questionnaire contained closed-ended questions to measure school staff knowledge and attitudes on the equal treatment of diverse youth, school staff interactions with students, and school and police relations (three content areas of training curriculum). The post-test questionnaire included open-ended questions that asked participants about their overall

satisfaction with the training sessions. Key findings from the analyses of the closed-ended questions included the following:

- Positive increases in training participants' knowledge scores remained significant 5 to 7 months after the training had been completed

- Training participants showed positive increases in their attitude scores from pre-test to post-test although they were not significantly more likely than the comparison group to endorse most of the individual attitude items at follow-up

- Training participants were more likely than members of the comparison group to report feeling confident in their ability to de-escalate conflict when interacting with students from pre-test to follow-up

- Training participants reported greater change than school staff in the comparison group on a cluster of attitude items focused on their efficacy in successfully interacting with students

Responses to the open-ended questions indicated that training participants found the program to be useful and felt that the presentation format was an effective way to deliver information about the training content areas. Participants noted several positive aspects of the program, including the use of various instructional techniques, the opportunity to work in groups with staff from other districts, and the strategies provided for increasing positive interactions with students. Additionally, participants offered suggestions for improvement. Overall, the evaluation results suggested that the program was effective in enhancing participants' knowledge about school staff, student, and police interactions. Although the results on participants' attitude

changes over time were less conclusive, findings indicated that the training improved participants' feelings of self-efficacy in interacting with students.

Project Overview

The pilot work on the ESSI did not focus on whether or not the training actually had an impact, over time, on how school staff and police interacted with students. This study, funded by a grant from NIJ, evaluates whether the ESSI training, targeting all personnel in a school system, inform a school's response to student misbehavior and thereby improve school climate, reduce out-of-school sanctions and referrals to juvenile court, and address disproportionate treatment of students based on race/ethnicity. Specifically, program effects were investigated by examining two-years of pre-training data and comparing trends over time to data from schools up to 2 years after training completion. School-level data were explored by examining the impact of the training on school attendance and disciplinary infractions. In addition, student-level data were examined focusing on demographic and racial disparities in disciplinary practices.

Descriptions of the Schools Involved in the Study

As only a limited number of schools could be trained, random selection of entire schools to represent the training sample was not feasible. As such, schools were recruited to participate in the study (recruitment involved the inclusion of a $5,000 "incentive" offered to the school in exchange for their participation). Ten schools, located in 5 urban districts and 3 suburban districts, participated in the training. These schools served an approximate total of 10,000 students in grades 6-12 annually.

ESSI trainings occurred in the 2015/16 academic year. Fifty-one training sessions were offered and 1,024 school personnel participated. Of those in attendance, 94% provided feedback

on the program. Participants reported being satisfied with the training with 98% of the participants indicating that the program was excellent or good. In addition, 87% of the participants indicated that the program provided useful information about creating positive interactions with students.

Comparison Schools

Evaluating the effectiveness of the ESSI training involved comparing data from the schools exposed to the training to data from a comparable set of schools that were not involved with the training. Matching methods were utilized to ensure that there are no observed differences between the training and control schools, based on observed covariates (Stuart, 2010). Specifically, schools in the training group were matched to schools from within the same or neighboring towns or cities and were, thus, demographically and geographically similar. In addition, trained and non-trained schools also were matched on the number and types of previous staff trainings on school discipline, school-police relations, ethnic/racial awareness (e.g., disproportionate minority contact), whether they have entered into a formal agreement between the superintendent and the police chief, and other related initiatives offered or supported by the Connecticut State Department of Education (publicly available data). These matching criteria were adopted to help eliminate threats to the validity of the study.

There were no significant differences between the training and control group at baseline (i.e., the 2013/14 academic year) regarding demographic characteristics. Although students in the training group were somewhat younger and there were slightly more male and White students in the training group, these differences were rather small in terms of effect sizes (ds < .2). Thus, it was concluded that the two groups of schools were comparable. (Table 1).

In sum, the data for this study was drawn from a panel of students enrolled in the training and control schools (10 schools in each training and control group) in the state between the 2013/14 and 2017/18 academic years. The core dataset came from the state's Department of Education. Based on a large longitudinal sample including an intervention and control condition, program effects were evaluated across 5 years, including 2 years before and 2 years after the training. The training, occurring in the 2015/16 academic year, served as the "training year" for this study.

Measures

Outcomes of interest. The primary outcomes were school attendance, disciplinary incidents, sanctions, and referrals to juvenile court (i.e., arrest). The attendance rate was defined as the proportion of days enrolled in any public schools that students attended. The school disciplinary incidents were categorized by the following types: School policy violations, fighting and battery, physical and verbal confrontation, personally threatening behaviors. Sanctions were referred to the type of sanction or discipline the student received for the offense, including in-school suspension, out-of-school suspension, bus suspension, and expulsion. All dependent variables were dichotomized variables (1 = yes, 0 = no) with the exception of the attendance rate, which was measured on a continuum.

Intervention status. Participation in the ESSI training was coded as a dummy-variable with 0 assigned to the control group and 1 referring to the training group.

Results

In the first set of analyses, the unit of analysis was school-level data because the primary aim of the study was to test the training effects on school wide outcomes. Thus, all student-level data

was aggregated by school and hierarchical modeling (Raudenbush & Bryk, 2002) was used with

Mplus 8.2 (Muthen & Muthen, 1998-2017). Specifically, piecewise hierarchical linear models

were tested with time nested within schools because this analytic approach takes into account for

differences in rate of change before and after the training (Hancock, Harring, & Lawrence,

2013). In other words, piecewise models allowed for different slopes and starting points to be

estimated for each phase (i.e., first two years of pre-training to the training year; up to 2 years

after the training). Thus, the outcome variables for the first phase were coded 0, 1, 2, 2, and 2 for

each of the five time points, allowing for the estimated slope to be interpreted as the baseline to

training year change. Similarly, the same outcome variables for the second phase were coded 0,

0, 0, 1 and 2, corresponding to each of the five time points, allowing for the estimated slope to be

interpreted as the average amount of change during a 2-year post-training period (i.e., from the

training year to 2 years after the training). Finally, to test the benefit of the training, we estimated

conditional models with intervention condition as a level 2 variable (training group = 1; control

group = 0).

Next, logistic multilevel models were run separately for each year to explore the impacts

of gender/race/age on the outcomes; thus, in the second set of analyses, the unit of analysis was

students by taking into account for non-independence of observations (i.e., students within

school). First, intraclass correlations (ICCs) were computed to determine variance explained by

school because that the primary aim of the study was to explore the training effect at the school-

level. Thus, in the current study, the ICCs indicated the school-level variation in disciplinary

infractions and sanctions. For each outcome, an unconditional model (i.e., no predictors

included) was estimated to partition the variance across the student- and school-levels. And then,

individual-level covariates (i.e., gender, race, age) were included at level 1 (i.e., student-level) to

explore the impact of student demographic characteristics. Furthermore, group membership (i.e., training vs. control school) was included at level 2 (i.e., school-level) to control the training effect each year.

Training Effect at School-Level. In the first set of analyses, the impact of the training on school disciplinary incidents and sanctions was analyzed at school-level with piecewise hierarchical linear regression. After the unconditional piecewise linear growth model was identified (See Supplemental Materials), a covariate, training condition, was entered into the analyses. Table 2 summarizes the conditional models in which training condition was modeled at level 2. There were no statistically significant differences in the outcomes in the 2 years prior to the training and 2 years after the training, except for attendance. In other words, there were no differences between the training and control schools, either during the 2 years prior to the training or 2 years after the training phases. Surprisingly, however, the coefficient in the model estimating training effects showed small reductions in attendance during the post-training phase ($\beta = -0.11$, $p < .04$) for the training group.

To summarize, the results indicated that most of the differences between the training and control group were statistically insignificant and there was no pattern of statistically significant positive effects across the training schools.

School-Level Variance. In the second set of analyses, we considered students as unit of analysis; thus, ICCs were computed to determine variance explained by the school level. To estimate ICCs, unadjusted models were analyzed without any predictors included. Unadjusted ICCs indicated that the school-level explained between 8 and 82 % of the total variance for the disciplinary infractions and consequences (Table 3). In general, ICCs for disciplinary infractions were almost uniformly lower than those for sanctions. For example, school-level variance was

lower for personally threatening behaviors with a range between 8 and 16 % across 5 years. However, expulsion in the academic year 2017-2018 showed the largest school-level variance, accounting for 82 % of the variance. It may be because about 66 % of the expulsion cases (n = 14) were from the same school in that year.

In sum, no clear pattern emerged across years with ICCs; that is, most disciplinary infractions and sanctions were not significantly different in the pre- and post-training phases.

Demographic and Racial Disparities in Discipline Practices. To test demographic and racial disparities in school disciplinary incidents and outcomes, we included students' demographic characteristics at level 1 (i.e., student-level) and group membership at level 2 (i.e., school-level). Focusing on student-level factors, students' race, age, and gender were statistically significantly associated with disciplinary infractions and sanctions for each year of the study (Table 4). These findings indicated that male and minority students were more likely to be involved in the disciplinary incidents and to receive suspensions or expulsions as a consequence of their behaviors than White and female students. Specifically, for disciplinary incidents, Black and Latino students were more likely to be involved in school policy violations, fighting and battery, and physical and verbal confrontations than White students across 5 years. For personally threatening behaviors, Black students had higher odds than Latino and White students across 5 years except for the training year. Gender also played an important role in disciplinary infractions. Male students showed higher odds of being involved in school policy violations, fighting and battery, and personally threatening behaviors than female students across 5 years. For physical and verbal confrontation, male students had higher odds of being involved in that incidents than female students in 2013 and 2015. In terms of age, older students were more likely to be involved in fighting and battery and physical and verbal confrontation.

Regarding punitive treatment, consistent findings emerged: disciplinary consequences were often used disproportionately among minority students. Specifically, Black and Latino students were more likely to receive disciplinary sanctions such as in-school and out-of-school suspension than White students. Interestingly, White students showed higher odds of receiving out-of-school suspension than minority students in 2013 (OR = 1.38); however, in that year, both Black and Latino students also showed higher odds of receiving out-of-school suspension (OR = 3.96 for Black students; OR = 2.46 for Latino students). For bus suspension, White students showed lower odds of being suspended from riding the bus than minority students (OR = .45). These findings suggest that minority students were treated more harshly compared to White students. Age and gender also played an important role in disciplinary consequences. Male students received more in-school and out-of-school suspension than female students and older male students were more likely to receive bus suspensions than younger female students in the academic years 2014-2016.

With regard to the most severe form of consequence for disciplinary infractions, race did not play role in expulsion. Instead, male students were expelled more often than female students before and after the training. Also, age was related to expulsion in the training year, indicating older students were expelled more than younger students. A similar pattern was found with regard to arrest, indicating that age and gender were significant for arrest. In addition to this, Black students were 4.67 times more likely to be arrested than White and Latino students in the academic year 2013-2014.

Conclusions

The goal of the ESSI Project was to rigorously evaluate a training curriculum with the hope that it could be used as a relatively low-cost best practice with schools and school districts across the nation. The objectives of the project were to:

1. Collaborate with middle and high schools in Connecticut to train all school staff (administrators, teachers and support staff including School Resource Officers and school security).

2. Provide a small amount of incentive funds ($5,000 to each school) to support the implementation of training concepts, but keep the intervention costs low to encourage replication.

3. Collect pre-training and post-training data on school disciplinary incidents and sanctions, referrals to court, and school attendance by school by race/ethnicity for the trained schools and a matched comparison group of schools.

4. Conduct data analyses to determine whether changes in the behavior of staff in the trained schools can reduce school disciplinary incidents and out-of-school sanctions, reduce referrals to juvenile court, improve school attendance, and address disparate school disciplinary treatment of students based on race/ethnicity.

This study is unique because 1) the actions of school personnel were examined by focusing on both school-level and student-level data; 2) data were examined before, during and after the training was administered (5-years' worth of data in all), and 3) the data from the

schools that received the training were contrasted with data from a comparable set of schools serving as a comparison sample.

The analyses of the school level data indicated that the training had no apparent impact on 1) indicators of school climate (attendance patterns); 2) on the number or types of disciplinary infractions occurring within the schools over time, and 3) changes in how disciplinary incidences were managed over time. The analyses of the student-level data, again, does not support the conclusion that the ESSI training influenced the sensitivity of school personnel to how minority students are disproportionately disciplined within schools and punished more harshly than white students. The data, if anything, suggest that within all of the CT schools examined in the study that males and, in particular, minority males were more likely, overt the 5-year timeline of this study, to be disciplined in harsh and punitive ways.

The conclusions drawn from these findings suggest that a one-day training program, though well intentioned and well received by attendees, is not sufficient to change the culture and customs of schools. While beyond the scope of this study, it is possible, as suggested by the results of the pilot studies, that the training influences the ways in which school personnel interact with specific students. These types of attitudinal and behavioral changes, if they do occur, however, do not result in wide-spread systemic changes in how disciplinary issues are managed within the school system.

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Table 1. Demographic Characteristics by Training and Control schools

Demographic characteristics	Training schools					Control schools					Group difference at baseline
	2013-2014 (pre-training year 1)	2014-2015 (pre-training year 2)	2015-2016 (training year)	2016-2017 (post-training year 1)	2017-2018 (post-training year 2)	2013-2014 (pre-training year 1)	2014-2015 (pre-training year 2)	2015-2016 (training year)	2016-2017 (post-training year 1)	2017-2018 (post-training year 2)	
Mean Age (*SD*)	15.24 (2.00)	15.18 (2.04)	15.13 (2.08)	15.05 (2.10)	15.00 (2.09)	15.34 (2.03)	15.38 (2.02)	15.34 (2.05)	15.29 (2.00)	15.34 (2.03)	$p < .01$; d = -.04
Gender											$p < .05$; d = -.02
Girls	4,194 (43.2%)	4,108 (45%)	4,075 (44.3%)	5,087 (42.4%)	5,019 (43.4%)	4,657 (44.6%)	4,259 (45.4%)	4,163 (45.7%)	5,347 (46.5%)	5,619 (47.5%)	
Boys	5,510 (56.8%)	5,011 (55%)	5,116 (55.7%)	6,903 (57.6%)	6,534 (56.6%)	5,776 (55.4%)	5,115 (54.6%)	4,946 (54.3%)	6,187 (53.5%)	6,202 (52.5%)	
Ethnicity											[a] $p < .01$; d = -.04
White	2,223 (22.9%)	1,981 (21.7%)	1,915 (20.8%)	2,485 (20.7%)	2,325 (20.1%)	2,600 (24.9%)	2,299 (24.5%)	2,265 (24.9%)	2,746 (23.8%)	2,696 (22.8%)	
Hispanic	3,612 (37.2%)	3,724 (40.8%)	3,873 (42.1%)	5,124 (42.7%)	5,005 (43.3%)	3,776 (36.2%)	3,552 (37.9%)	3,520 (38.6%)	4,709 (40.7%)	4,898 (41.4%)	
Black	3,439 (35.4%)	2,990 (32.8%)	2,952 (32.1%)	3,802 (31.7%)	3,570 (30.9%)	3,571 (34.2%)	3,076 (32.8%)	2,844 (31.2%)	3,474 (30.0%)	3,562 (30.1%)	
Asian	257 (2.6%)	249 (2.7%)	245 (2.7%)	313 (2.6%)	308 (2.7%)	312 (3%)	288 (3.1%)	304 (3.3%)	383 (3.3%)	392 (3.3%)	
Other	173 (1.7%)	175 (1.9%)	206 (2.2%)	266 (2.2%)	345 (3.0%)	174 (1.6%)	159 (1.6%)	176 (1.9%)	249 (2.1%)	273 (2.3%)	
Total *N*	9,704	9,119	9,191	11,990	11,553	10,433	9,374	9,109	11,561	11,821	

Note. [a] We compared between two groups; minority vs. White students

Table 2. Results of HLM Model with Training Condition Modeled at School-level

Outcome variable	Parameter estimates: Slope for the pre-training phase			Parameter estimates: Slope for the post-training phase		
	β	SE	*p*	β	SE	*p*
Attendance	.02	.06	.68	**-.11***	.05	.04
Disciplinary incidents						
School policy violations	.01	.02	.34	.01	.02	.64
Fighting and battery	.13	.07	.05	.00	.07	.90
Physical and verbal confrontation	.04	.05	.40	-.06	.05	.23
Personally threatening behaviors	-.00	.01	.88	.01	.01	.15
Sanctions						
In-school suspension	.00	.02	.92	.02	.02	.29
Out-of-school suspension	.379	.24	.11	-.20	.21	.35
Bus suspension	.01	.05	.73	-.00	.08	.53
Expulsion	.07	.05	.20	.02	.07	.76
Arrest	.19	.12	.11	-.26	.17	.13

Note. *$p < .05$

Table 3. Unadjusted Intraclass Correlations and 95% Confidence Intervals for School-level Variance of Outcomes

Variable	2013-2014 (pre-training year 1)	2014-2015 (pre-training year 2)	2015-2016 (training year)	2016-2017 (post-training year 1)	2017-2018 (post-training year 2
Disciplinary incidents					
School policy violations	.25 (.15, .35)	.33 (.20, .47)	.25 (.12, .38)	.21 (.11, .31)	.21 (.13, .29)
Fighting and battery	.13 (.06, .20)	.19 (.08, .29)	.16 (.05, .28)	.19 (.08, .31)	.22 (.08, .36)
Physical and verbal confrontation	.22 (.14, .30)	.22 (.15, .29)	.20 (.11, .30)	.15 (.07, .24)	.16 (.10, .23)
Personally threatening behaviors	.08 (.04, .12)	.16 (.05, .28)	.10 (.02, .17)	.09 (.04, .13)	.08 (.04, .12)
Sanctions					
In-school suspension	.30 (.11, .49)	.41 (.27, .56)	.46 (.21, .71)	.34 (.08, .60)	.32 (.16, .48)
Out-of-school suspension	.17 (.10, .24)	.31 (.12, .50)	.27 (.15, .39)	.20 (.09, .31)	.23 (.11, .34)
Bus suspension	.50 (.23, .78)	.55 (.26, .84)	.57 (.24, .91)	.16 (-.03, .35)	.40 (.14, .66)
Expulsion	.35 (.18, .52)	.46 (.14, .78)	.31 (.03, .60)	.36 (.12, .59)	.82 (.66, .97)
Arrest	.19 (.07, .30)	.18 (.10, .27)	.32 (.15, .47)	.32 (.12, .51)	.22 (.05, .40)

Note. All outcomes were binary variables.

Table 4. Results from the MLM Models for Each Outcome

Variable	2013-2014 (pre-training year 1)		2014-2015 (pre-training year 2)		2015-2016 (training year)		2016-2017 (post-training year 1)		2017-2018 (post-training year 2)	
	Coefficients (SE)	OR	Coefficient (SE)	OR	Coefficient (SE)	OR	Coefficient (SE)	OR	Coefficient (SE)	OR
Disciplinary incidents: School policy violations										
Gender	-.70 (.07)***	.49	-.58 (.12)***	.55	-.55 (.07)***	.57	-.60 (.07)***	.54	-.58 (.08)***	.55
White	.13 (.16)	1.14	.09 (.25)	1.09	.17 (.20)	1.19	.20 (.16)	1.22	-.03 (.11)	.96
Black	1.10 (.13)***	3.01	1.06 (.19)***	2.90	1.11 (.14)***	3.05	1.18 (.14)***	3.28	.93 (.14)***	2.55
Latino	.72 (.17)***	2.06	.66 (.15)***	1.93	.69 (.15)***	2.01	.78 (.14)***	2.18	.58 (.10)***	1.79
Age	.00 (.07)	1.00	.04 (.06)	1.04	-.00 (.06)	.99	-.03 (.08)	.96	-.06 (.07)	.94
Disciplinary incidents: Fighting and battery										
Gender	-.39 (.12)**	.67	-.30 (.14)*	.74	-.50 (.12)***	.60	-.32 (.14)*	.72	-.35 (.11)**	.70
White	-.12 (.29)	.88	.37 (.42)	1.46	-.11 (.24)	.88	.28 (.24)	1.33	-.12 (.22)	.88
Black	1.16 (.24)***	3.19	1.55 (.31)***	4.72	1.42 (.24)***	4.15	1.34 (.12)***	3.82	1.02 (.24)***	2.78
Latino	.75 (.21)**	2.12	1.09 (.29)***	2.97	.84 (.22)***	2.33	1.11 (.13)***	3.05	.57 (.18)**	1.77
Age	-.04 (.05)	.95	-.12 (.05)*	.88	-.07 (.05)	.93	-.13 (.05)*	.87	-.03 (.04)	.96
Disciplinary incidents: Physical and verbal confrontation										
Gender	-.27 (.11)*	.75	-.11 (.09)	.88	-.45 (.13)**	.63	-.18 (.13)	.83	.03 (.22)	1.03
White	.32 (.19)	1.38	.39 (.36)	1.48	.01 (.25)	1.01	-.13 (.17)	.87	-.40 (.22)	.67
Black	1.37 (.15)***	3.96	1.40 (.35)***	4.05	1.17 (.29)***	3.22	1.17 (.18)***	3.24	.96 (.22)	2.61
Latino	.85 (.17)***	2.36	.99 (.37)**	2.71	.57 (.23)*	1.77	.66 (.15)***	1.93	.38 (.19)	1.47
Age	-.08 (.03)*	.92	-.06 (.04)	.93	-.12 (.04)**	.88	-.02 (.05)	.97	-.08 (.06)	.92
Disciplinary incidents: Personally threatening behaviors										
Gender	-.34 (.13)**	.71	-.37 (.15)*	.68	-.76 (.21)***	.46	-1.02 (.15)***	.35	-.62 (.15)***	.53
White	.35 (.31)	1.42	-.21 (.42)	.80	-.32 (.33)	.72	.23 (.34)	1.26	.53 (.36)	1.70
Black	.98 (.25)***	2.66	.80 (.29)**	2.24	.53 (.28)	1.71	.84 (.33)*	2.32	.96 (.34)**	2.61
Latino	.46 (.27)	1.59	.36 (.38)	1.44	.11 (.29)	1.12	.47 (.24)	1.60	.55 (.40)	1.74
Age	-.07 (.04)	.93	.03 (.04)	1.03	-.07 (.06)	.93	-.04 (.05)	.95	-.02 (.04)	.97
Sanctions: In-school suspension										
Gender	-.62 (.08)***	.53	-.57 (.11)	.56	-.59 (.08)***	.55	-.63 (.07)***	.52	-.62 (.04)	.53
White	.06 (.18)	1.07	-.01 (.23)	.98	-.00 (.24)	.99	.17 (.18)	1.18	-.13 (.11)	.87
Black	.94 (.16)***	2.57	.99 (.18)	2.70	1.01 (.16)***	2.76	1.15 (.15)***	3.18	.85 (.10)	2.34

Latino	.59 (.17)**	1.81	.53 (.13)	1.70	.56 (.17)**	1.75	.79 (.15)***	2.21	.45 (.11)	1.57
Age	-.00 (.05)	.99	-.00 (.06)	.99	-.01 (.05)	.98	-.09 (.07)	.91	-.09 (.07)	.91
Sanctions: Out-of-school suspension										
Gender	-.58 (.08)***	.55	-.31 (.09)***	.72	-.49 (.08)***	.60	-.39 (.05)***	.67	-.31 (.06)***	.73
White	.32 (.14)*	1.38	.56 (.29)	1.75	.14 (.19)	1.15	.09 (.20)	1.10	-.01 (.14)	.98
Black	1.37 (.13)***	3.96	1.46 (.19)***	4.31	1.27 (.15)***	3.58	1.16 (.14)***	3.21	.93 (.19)***	2.53
Latino	.90 (.12)***	2.46	1.09 (.20)***	2.97	.82 (.16)***	2.28	.74 (.15)***	2.09	.57 (.13)***	1.77
Age	-.00 (.05)	.99	.02 (.06)	1.02	-.03 (.05)	.96	.01 (.03)	1.01	-.00 (.03)	.99
Sanctions: Bus suspension										
Gender	-[a]	-	-.67 (.25)**	.50	-.82 (.37)*	.43	-.86 (.47)	.42	-.85 (.58)	.42
White	-	-	-.03 (.96)	.96	-.01 (.74)	.98	-.28 (1.07)	.75	-.78 (.26)**	.45
Black	-	-	1.26 (.24)***	3.54	1.26 (.52)*	3.52	.48 (.80)	1.62	.57 (.78)	1.78
Latino	-	-	.50 (.55)	1.65	.36 (.18)	1.43	.61 (.83)	1.84	-.48 (.77)	.61
Age	-	-	.56 (.27)*	1.75	-.54 (.20)**	.58	-.01 (.10)	.98	.17 (.12)	1.19
Sanctions: Expulsion										
Gender	-1.63 (.49)**	.19	-[b]	-	.55 (.42)	1.74	-1.33 (.56)*	.26	-[c]	-
White	.39 (1.07)	1.47	-	-	-.38 (1.05)	.68	.02 (1.02)	1.02	-	-
Black	.91 (1.15)	2.50	-	-	-.16 (1.28)	.84	.52 (1.16)	1.69	-	-
Latino	.89 (1.04)	2.44	-	-	.01 (.89)	1.01	.71 (1.08)	2.04	-	-
Age	.16 (.12)	1.18	-	-	.26 (.13)*	1.30	.04 (.14)	1.04	-	-
Arrest										
Gender	-.63 (.23)**	.53	-.40 (.33)	.66	-.48 (.26)	.61	-.09 (.25)	.91	-.00 (.25)	.99
White	.46 (.37)	1.58	.32 (.70)	1.38	-.40 (.57)	.66	-.87 (.47)	.41	-.32 (.51)	.72
Black	1.54 (.39)***	4.67	1.02 (.67)	2.78	.79 (.58)	2.20	.27 (.37)	1.31	1.05 (.60)	2.86
Latino	.80 (.45)	2.24	.78 (.63)	2.18	.19 (.52)	1.22	-.15 (.53)	.85	.48 (.51)	1.61
Age	.13 (.07)	1.14	.32 (.05)***	1.38	.22 (.05)***	1.25	.01 (.11)	1.01	.19 (.06)**	1.21

Note. For gender, 0 = male, 1 = female

[a] model was not properly estimated due to a small number of incidents (n = 26) and low school-level variance; [b] model was not properly estimated due to a small number of incidents (n = 16) and low school-level variance; [c] model was not properly estimated due to a small number of incidents (n = 21) and low school-level variance

*p < .05; **p < .01; ***p < .001

Appendix

Table 1. Disciplinary Incidents, Sanctions and Arrest in Training Schools

	2013-2014 (pre-training year 1)	2014-2015 (pre-training year 2)	2015-2016 (Training year)	2016-2017 (post-training year 1)	2017-2018 (post-training year 2)
Disciplinary incidents					
Drugs, Alcohol, and Tobacco use	88 (2.2%)	59 (1.7%)	29 (0.8%)	58(1.2%)	102 (23.7%)
Fighting and Battery	517 (12.9%)	484 (13.9%)	636 (17.4%)	875 (17.7%)	726 (16.9%)
Personally threating behaviors	188 (4.7%)	161 (4.6%)	157 (4.3%)	221 (4.5%)	206 (4.8%)
Physical and verbal confrontation	507 (12.6%)	500 (14.3%)	541 (14.8%)	659 (13.3%)	538 (12.5%)
Property damage	36 (0.9%)	32 (0.9%)	32 (0.9%)	41 (0.8%)	30 (0.7%)
School policy violations	2,477 (61.8%)	2,092 (60%)	2,139 (58.4%)	2,943 (59.6%)	2,573 (59.8%)
Sexually related behaviors	76 (1.9%)	69 (2.0%)	24 (0.7%)	51(1%)	41(1.0%)
Theft related behaviors	57 (1.4%)	40 (1.1%)	54 (1.5%)	48(1%)	49(1.1%)
Violent crimes against persons	47 (1.2%)	32 (0.9%)	29 (0.8%)	13(0.3%)	22(0.5%)
Weapons	18 (0.4%)	16 (0.5%)	21 (0.6%)	29(0.6%)	15(0.3%)
Total N	4,011	3,486	3,662	4,938	4,302
Sanctions					
In-school suspension	2,304 (57.4%)	1,930 (55.4%)	2,026 (55.3%)	2,853 (57.9%)	2,533 (58.9%)
Out-of-school suspension	1,516 (37.8%)	1,389 (39.8%)	1,498 (40.9%)	1,882 (38.2%)	1,689 (39.2%)
Expulsion	14 (0.3%)	9 (0.3%)	9 (0.2%)	12 (0.2%)	12 (0.3%)
Bus suspension	15 (0.4%)	17 (0.5%)	9 (0.2%)	17 (0.3%)	16 (0.4%)
Other	162 (4%)	141 (4%)	120 (3%)	165 (3.3%)	52 (1.2%)
Total N	4,011	3,486	3,662	4,929	4,302
Arrest					
Yes	98 (2.4%)	73 (2.1%)	83 (2.3%)	54 (1.1%)	67 (1.6%)
No	3,913 (97.6%)	3,413 (97.9%)	3,579 (97.7%)	4,817 (98.9%)	4,235 (98.4%)
Total N	4,011	3,486	3,662	4,871	4302

Table 2. Students' Demographic Characteristics in Training Schools

	2013-2014 (pre-training year 1)	2014-2015 (pre-training year 2)	2015-2016 (Training year)	2016-2017 (post-training year 1)	2017-2018 (post-training year 2)
Mean age (*SD*)	15.06 (1.84)	15.00 (1.88)	14.96 (1.94)	14.93 (2.02)	14.81 (1.94)
Gender					
Girls	1,399 (33.4%)	1,338 (38.4%)	1,289 (35.2%)	1,552 (31.5%)	1416 (32.9%)
Boys	2,672 (66.6%)	2,148 (61.6%)	2,373 (64.8%)	3377(68.5%)	2886(67.1%)
Ethnicity					
White	508 (12.7%)	369 (10.6%)	364 (9.9%)	544 (11.0%)	512 (11.9%)
Hispanic	1,453 (36.2%)	1,441 (41.3%)	1,577 (43.1%)	2,167 (44.0%)	1,804 (41.9%)
Black	1,967 (49%)	1,608 (46.1%)	1,635 (44.6%)	2,106 (42.7%)	1,836 (41.9%)
Asian	30 (0.7%)	10 (0.3%)	16 (0.4%)	22 (0.4%)	28 (0.7%)
Other	53 (1.3%)	58 (1.6%)	70 (1.9%)	90 (1.8%)	122 (3.8%)
Total *N*	4,011	3,486	3,662	4929	4302

Note. Included only students having incidents records

Table 3. Disciplinary Incidents, Sanctions and Arrest in Control Schools

	2013-2014 (pre-training year 1)	2014-2015 (pre-training year 2)	2015-2016 (Training year)	2016-2017 (post-training year 1)	2017-2018 (post-training year 2)
Disciplinary incidents					
Drugs, Alcohol, and Tobacco use	72 (2.1%)	52 (2.1%)	58 (2.4%)	80(2.7%)	115(3.8%)
Fighting and Battery	394 (11.7%)	280 (11.4%)	292 (11.9%)	383(13%)	384(12.5%)
Personally threating behaviors	122 (3.6%)	95 (3.9%)	95 (3.9%)	93(3.2%)	110(3.6%)
Physical and verbal confrontation	291 (8.7%)	252 (10.3%)	273 (11.1%)	357(12.1%)	412(13.5%)
Property damage	34 (1%)	15 (0.6%)	21 (0.9%)	18(0.6%)	26(0.8%)
School policy violations	2,318 (68.9%)	1,669 (68.2%)	1,627 (66.2%)	1,887(64%)	1,920(62.7)
Sexually related behaviors	39 (1.2%)	22 (0.9%)	19 (0.8%)	36(1.2%)	16(0.5%)
Theft related behaviors	43 (1.3%)	30 (1.2%)	30 (1.2%)	45(1.5%)	32(1.0%)
Violent crimes against persons	23 (0.7%)	15 (0.6%)	14 (0.6%)	23(0.8%)	21(0.7%)
Weapons	27 (0.8%)	18 (0.7%)	29 (1.2%)	26(0.9%)	25(0.8%)
Total N	3,363	2,448	2,458	2,948	3,061
Sanctions					
In-school suspension	1,636 (48.6%)	1,458 (55.4%)	1,434 (58.3%)	1,739(59.0%)	1,524(49.8%)
Out-of-school suspension	1,644 (48.9%)	952 (39.8%)	974 (39.6%)	1,178(40.0%)	1508(49.3%)
Expulsion	28 (0.8%)	7 (0.3%)	7 (0.3%)	15(0.5%)	15(0.5%)
Bus suspension	11 (0.3%)	6 (0.5%)	17 (0.7%)	11(0.4%)	5(0.2%)
Other	44 (1.3%)	25 (1%)	26 (1%)	5(0.1%)	9(0.3%)
Total N	3,363	2,448	2,458	2,948	3,061
Arrest					
Yes	89 (2.6%)	68 (2.8%)	37 (1.5%)	47(1.6%)	75(2.5%)
No	3,274 (97.4%)	2,380 (97.2%)	2,421 (98.5%)	2821(98,4%)	2,986(97.5%)
Total N	3,363	2,448	2,458	2,868	3061

Table 4. Students' Demographic characteristics in Control Schools

Demographic characteristics	2013-2014 (pre-training year 1)	2014-2015 (pre-training year 2)	2015-2016 (Training year)	2016-2017 (post-training year 1)	2017-2018 (post-training year 2)
Mean age (*SD*)	15.24 (1.89)	15.43 (1.84)	15.30 (1.89)	15.31 (1.82)	15.55 (1.86)
Gender					
Girls	1,014 (30.2%)	739 (30.2%)	807 (32.8%)	1,071 (36.3%)	1,201 (39.2%)
Boys	2,349 (69.8%)	1,709 (69.8%)	1,651 (67.2%)	1,877 (63.7%)	1860 (60.8%)
Ethnicity					
White	383 (11.4%)	284 (11.6%)	314 (12.8%)	343 (11.6)	334 (10.9%)
Hispanic	1,289 (38.3%)	944 (38.6%)	954 (38.8%)	1,177 (39.9%)	1,242 (40.6%)
Black	1,612 (47.9%)	1,163 (47.5%)	1,114 (45.3%)	1,345 (45.6%)	1,378 (45.0%)
Asian	23 (0.7%)	23 (0.9%)	25 (1%)	19 (0.6%)	26 (0.8%)
Other	56 (1.6%)	34 (1.3%)	51 (2%)	64 (2.2%)	81 (2.7%)
Total *N*	3,363	2,448	2,458	2,948	3,061

Note. Included only students having incidents records