



School Sector and Climate: Evidence from New York

Corey A. DeAngelis

Reason Foundation & Cato Institute

Public charter schools could theoretically experience fewer school climate problems than district-run public schools because of additional competitive pressures, autonomy, and improved matches between schools and students. Using publicly available data from the New York State Education Department, I analyze differences in 13 school climate problems between public charter school and district-run public school sectors. After controlling for observable differences in students and schools between sectors, I find that public charter schools tend to report fewer school climate problems than district-run public schools in New York state in the 2017-18 school year. Specifically, public charter schools report fewer assaults with physical injuries, assaults with serious physical injuries, forcible sex offenses, other sex offenses, weapons possessions resulting from routine security checks, other weapons possessions, and false alarms than district-run public schools; however, public charter schools tend to report more cyberbullying than district-run public schools. The charter school climate advantages tend to be more pronounced in New York City than the rest of the state.

VERSION: February 2020

Suggested citation: DeAngelis, Corey A. (2020). School Sector and Climate: Evidence from New York. (EdWorkingPaper: 20-206). Retrieved from Annenberg Institute at Brown University: <https://www.edworkingpapers.com/ai20-206>

School Sector and Climate: Evidence from New York

Corey A. DeAngelis, Ph.D.
Reason Foundation
&
Cato Institute
Corey.DeAngelis@gmail.com
ORCID: 0000-0003-4431-9489

February 18, 2020

Declarations of interest: none. Funding: none.

Abstract

Public charter schools could theoretically experience fewer school climate problems than district-run public schools because of additional competitive pressures, autonomy, and improved matches between schools and students. Using publicly available data from the New York State Education Department, I analyze differences in 13 school climate problems between public charter school and district-run public school sectors. After controlling for observable differences in students and schools between sectors, I find that public charter schools tend to report fewer school climate problems than district-run public schools in New York state in the 2017-18 school year. Specifically, public charter schools report fewer assaults with physical injuries, assaults with serious physical injuries, forcible sex offenses, other sex offenses, weapons possessions resulting from routine security checks, other weapons possessions, and false alarms than district-run public schools; however, public charter schools tend to report more cyberbullying than district-run public schools. The charter school climate advantages tend to be more pronounced in New York City than the rest of the state.

Keywords: charter schools; school choice; school safety; school violence; school climate

JEL Codes: I28; I20

Introduction

School quality is multidimensional (Blazar & Kraft, 2017). Schools are expected to improve student academic achievement, but they are also expected to keep children safe throughout the day. The U.S. Department of Education recently found that about 9 percent of students in high school had been in a physical fight on school property in the previous 12 months, and 20 percent of students in high school had access to illegal drugs on school property in the previous 12 months (Musu et al., 2019). In 2017, about 23 percent of students reported seeing hate-related graffiti and about 20 percent of students between the ages of 12 and 18 reported being bullied at school during the school year. Seventy-nine percent of public schools reported that one or more incidents of violence, theft, or other crimes took place, and 47 percent of schools reported one or more crime incidents to the police in the 2015-16 school year (Musu et al., 2019). Thirty-eight percent of teachers reported that student tardiness and class-cutting interfered with their teaching in 2015-16.

Access to public charter schools could theoretically lead to improvements in school climate because of additional competitive pressures, increased autonomy, and improved matches between schools and students. In New York, and most of the United States, students are residentially assigned to district-run public schools throughout their K-12 educations.¹ Some economists would argue that residential assignment to schools and mandatory funding through property taxes create substantial monopoly power for district-run public schools (Friedman, 1955). In general, if a family is not satisfied with the educational services provided by the district-run public schools, they only have a few options, which are each ineffective or costly,

¹ Find a School. New York City Department of Education. Retrieved from <https://www.schools.nyc.gov/find-a-school>. 2017-2018 School Zones. NYC Open Data. Retrieved from <https://data.cityofnewyork.us/Education/2017-2018-School-Zones/ghq4-ydq4>

especially for the least advantaged. The dissatisfied family can pay for a private school out of pocket while still paying for the district-run public school through property taxes, move to a residence that is assigned to a higher-quality district-run public school, vote for school board members who enact policies they prefer, advocate on behalf of their children to leaders of district-run public schools, or incur the costs associated with homeschooling while still paying for the district-run public school through property taxes.

Public charter schools are independently run and students are not assigned to them based on their residences. Public charter schools are prohibited from charging tuition, cannot have religious affiliations, generally cannot use selective admissions processes, and must comply with federal safety, special education, and civil rights laws.² Because public charter schools are additional educational options available to families and do not charge tuition, they reduce the transaction costs associated with opting out of residentially assigned schools, which theoretically increases competitive pressures in the public school system overall (Hanushek et al., 2007). By reducing the monopoly power held by providers of educational services, competitive pressures could improve academic outcomes such as math and reading test scores and non-academic outcomes such as school safety and climate (Chubb & Moe, 1988; Cordes, 2018; DeAngelis & Flanders, 2019; Egalite, 2013; Jabbar et al., 2019; Hoxby, 2007). We might expect public charter schools to demonstrate an advantage with providing safe school climates relative to district-run public schools if families choose their children's schools based on safety (e.g. Bedrick & Burke, 2018; Holmes Erickson, 2017; Kelly & Scafidi, 2013).

We might expect any public charter school advantages to be more pronounced in areas with more competitive pressures. For example, public charter school advantages might be larger

² What is a Charter School? National Charter School Resource Center. U.S. Department of Education. Retrieved from <https://charterschoolcenter.ed.gov/what-charter-school>

for New York City than the rest of the state since there are generally more public charter school options from which to choose in large cities. Similarly, public charter school advantages might be larger for elementary schools than schools serving other grade levels because there are generally more elementary schools from which to choose. However, we might also expect any public charter school advantages to be less pronounced in areas with more because competitive pressures could lead to improvements in nearby district-run public schools (e.g. Cordes, 2018; Egalite, 2013; Jabbar et al., 2019).

Access to public charter schools might lead to better educational outcomes and school climates simply by improving matches between educators and students (DeAngelis & Holmes Erickson, 2018; Prieto et al., 2019). Public charter schools could experience fewer school climate problems if students are more interested in the material taught in the classroom and more aligned with the school's mission. We might also expect public charter schools to demonstrate school safety advantages since they generally have more autonomy with disciplinary policies than district-run public schools (Shakeel & DeAngelis, 2017).³ Diliberti et al. (2019) found that 19 percent of schools in the U.S. reported that federal, state, or district policies on disciplining special education students limited their abilities to reduce or prevent crimes.

However, it is also possible for public charter schools to reduce student safety if families put more weight on other metrics of school quality or if public charter schools deceive families with advertising (Lubienski, 2007). It is also possible that families might not choose safer schools for their children because of possible information asymmetries in the education market (e.g. Ferreyra & Liang, 2012; Harris, 2017). Public charter schools might also fail to provide safer climates than district-run public schools since public charter schools tend to receive less

³ What is a Charter School? National Charter School Resource Center. U.S. Department of Education. Retrieved from <https://charterschoolcenter.ed.gov/what-charter-school>

funding per student than district-run public schools in New York (Batdorff et al., 2005; Batdorff et al., 2010; Batdorff et al., 2014; DeAngelis et al., 2018; Wolf et al., 2017).

This study empirically examines the three following research hypotheses:

Hypothesis 1: Public charter schools have fewer school climate problems than district-run public schools.

Hypothesis 2: Public charter school climate advantages, if they exist, are more pronounced in New York City than the rest of the state.

Hypothesis 3: Public charter school climate advantages, if they exist, are more pronounced in elementary schools than schools serving other grade levels.

Using publicly available data from the New York State Education Department (NYSED), I estimate differences in 13 school climate problems between public charter school and district-run public school sectors. After controlling for several observable differences in students and schools between sectors, I find that public charter schools tend to report fewer school climate problems than district-run public schools in New York state in the 2017-18 school year.

Specifically, public charter schools report fewer assaults with physical injuries, assaults with serious physical injuries, forcible sex offenses, other sex offenses, weapons possessions resulting from routine security checks, other weapons possessions, and false alarms than district-run public schools; however, public charter schools tend to report more cyberbullying than district-run public schools. The charter school climate advantages tend to be more pronounced in New York City than the rest of the state.

The next section reviews the literature on public charter schools in general, school choice and reports of safety, and the stated preferences of families who choose schools. The data and

methods are then presented. After that, the empirical results, study limitations, and policy implications are discussed.

Literature Review

A large body of literature links access to public charter schools to academic outcomes. The latest meta-analysis of the rigorous scientific evidence on the topic found that access to public charter schools generally increases math and reading test scores (Betts & Tang, 2019). Specifically, Betts and Tang (2019) reviewed 38 studies and found that public charter schools increased math test scores by 3.3 percent of a standard deviation and increased reading test scores by 2 percent of a standard deviation, on average. However, results of individual evaluations of public charter schools suggest that the academic effectiveness of public charter schools varies by context and location (Betts & Tang, 2019). Zimmer et al. (2019) similarly summarized the evidence on public charter schools and concluded that “lottery-based analyses have generally shown strong positive effects on student achievement of charter school admission and enrollment.”

Betts and Tang (2014) reviewed the evidence linking access to public charter schools to various outcomes and found that “overall the studies appear to find positive effects of charter schools on non-achievement outcomes.” Foreman (2017) found six evaluations linking access to public charter schools to educational attainment (Angrist et al., 2016; Davis & Heller, 2019; Dobbie & Fryer, 2015; Dobbie & Fryer, 2016; Furgeson et al., 2012; Sass et al., 2016). Each of the six evaluations found statistically significant positive effects for at least one educational attainment outcome, and none of the studies found negative effects on educational attainment.

Although it is important to evaluate the academic effectiveness of public charter schools, other outcomes may be of interest to families and communities. Families choose schools based on a variety of features such as academic effectiveness, culture, specialized mission, and safety

(Catt & Rhinesmith, 2017; Cheng, Trivitt, and Wolf, 2016; Holmes Erickson, 2017; Prieto et al., 2019; Trivitt & Wolf, 2011). These types of schooling preferences may lead to improvements in nonacademic outcomes such as reductions in crime, teen pregnancies, and school climate problems (e.g. Dobbie & Fryer, 2015; DeAngelis & Dills, 2018; DeAngelis and Wolf, 2019; Deming, 2011; Dills & Hernández-Julián, 2011; McEachin et al., 2019). Bedrick and Burke (2018) surveyed over 13,000 families using the Florida Tax Credit Scholarship Program and found that 36 percent of parents listed a “safe environment” as one of their top three reasons for choosing their children’s schools, whereas only 4 percent listed “standardized test scores” in their top three reasons. Kelly and Scafidi (2013) similarly surveyed families using the Georgia GOAL Scholarship Program and found that 53 percent of parents listed “improved student safety” as a reason for choosing their children’s schools.

Schwalbach and DeAngelis (2020) reviewed the evidence linking public charter schools and private school choice programs to reports of school safety. This limited body of research suggests that access to public and private schools of choice improves safety as reported by students, parents, and school leaders. Ten rigorous studies link private school choice programs, or private schooling in general, to reports of safety (Schwalbach & DeAngelis, 2020). Each of the 10 evaluations finds statistically significant positive effects on safety as reported by students, parents, or school leaders (DeAngelis & Lueken, 2020; Howell & Peterson, 2006; Fan, Williams, & Corkin, 2011; Farina, 2019; Lleras, 2008; Shakeel & DeAngelis, 2018; Waasdorp et al., 2018; Webber et al., 2019; Witte et al., 2008; Wolf et al., 2010). Schwalbach and DeAngelis (2020) also find generally positive effects of access to public charter schools on reports of school safety in their review of the studies on the topic (e.g. Altenhofen, Berends, & White, 2016; Barrett, 2003; DeAngelis & Lueken, 2020; Gleason et al., 2010; Hamlin, 2017; Shakeel & DeAngelis,

2018; Tuttle et al., 2015). Although three of these studies use random assignment methodology, each of these studies examines differences in parents' perceptions of school safety rather than differences in actual incidents of school climate problems between sectors (Altenhofen, Berends, & White, 2016; Gleason et al., 2010; Tuttle et al., 2015). Cordes (2018) also found that charter school competition is associated with improvements in parents' reports of school safety in New York City.

The current study adds to this body of literature by focusing on New York, using recent data from the 2017-18 school year, examining school climate differences between sectors using a list of 13 different school climate problems reported by school leaders, and examining counts of school climate problems. Although Shakeel and DeAngelis (2018) and DeAngelis and Lueken (2020) also examine differences in school climate problems as reported by school leaders between sectors, those studies rely on surveys of school leaders, whereas the current study uses data that are publicly available and required by the New York State Education Department. The current study might provide less-biased estimates since all schools are required to report the school climate problems, whereas the previous studies examine differences in the likelihood of school climate problems occurring as reported by school leaders on surveys. The current study also uses significantly more control variables in the analytic models than Shakeel and DeAngelis (2018) and DeAngelis and Lueken (2020), which arguably could lead to less-biased estimates of the effects of public charter schools on school climate problems. This study also examines differences in actual counts of the school climate problems rather than reports of the likelihood of particular problems occurring in their schools.

Data

The data used in this study are all publicly available at the New York State Education Department website. The dependent variables examined, capturing counts of 13 different categories of safety incidents for each school in 2017-18, can be found at the Information and Reporting Services section of the NYSED website.⁴ Data on grade levels served, location, and background characteristics of students enrolled in each public school in the 2017-18 school year can be found at the Enrollment Database at the NYSED website.⁵ Data on the counts of student suspensions can also be found for each public school at the Student and Educator Database⁶ at the NYSED website.⁷

Descriptive statistics for the full sample of 4,717 schools (4,440 district-run public schools and 277 public charter schools) can be found in Table 1. One observation (0.02 percent of all schools) is missing for the percentage of students identified as “free lunch” and “reduced lunch.” Thirty-one observations (0.66 percent of all schools) are missing for student suspensions. Schafer (1999) claims that missing rates below 5 percent are inconsequential, and Bennett (2001) contends that estimates are biased when the percentage of missing data exceeds 10 percent. Average differences between school sectors are shown for each variable in Table 2. In general, statistically significant differences between sectors suggest that public charter schools serve less-advantaged student populations than district-run schools in the state. Relative to district-run public schools in New York in the 2017-18 school year, public charter schools served higher

⁴ School Safety and the Educational Climate (SSEC). Information and Reporting Services. New York State Education Department. Retrieved from http://www.p12.nysed.gov/irs/school_safety/school_safety_data_reporting.html

⁵ Enrollment Database. Downloads. New York State Education Department. Retrieved from <https://data.nysed.gov/downloads.php>

⁶ Although the NYSED website indicates that this dataset covers the 2017-18 school year, the dataset itself indicates that the suspension counts are from the 2016-17 school year.

⁷ Student and Educator Database. Downloads. New York State Education Department. Retrieved from <https://data.nysed.gov/downloads.php>

proportions of students classified as: free lunch, reduced lunch, homeless, racial or ethnic minorities, and students living in New York City. However, district-run public schools served higher proportions of English Language Learners and migrants than public charter schools in New York in 2017-18.

Six of the 13 school climate problems are statistically different between sectors (Table 2). Five of these six differences suggest that district-run public schools have more safety problems than public charter schools in New York. On a per-pupil basis, district-run public schools reported more instances of assaults with serious physical injuries, forcible sex offenses, other sex offenses, other weapons possessions, and non-cyber bullying. However, public charter schools reported more instances of cyberbullying per pupil than district-run public schools. Public charter schools also in general suspended more students than district-run public schools. Importantly, none of the differences in outcomes reported in Table 2 control for differences in student populations or school characteristics. Results from subsequent models, explained in the next section, control for observable differences in student and school characteristics between sectors.⁸

⁸ Regressions cannot run for the final outcome, homicides, due to concavity problems. This outcome is therefore excluded from each of the main results tables.

Table 1: Descriptive Statistics

Variables	Mean	Standard Deviation	Minimum	Maximum
<i>Independent</i>				
Public Charter School (%)	5.87	23.51	0.00	100.00
English Language Learners (%)	8.43	12.02	0.00	100.00
Students with Disabilities (%)	18.82	12.63	0.00	100.00
Free Lunch (%)	51.41	27.44	0.00	103.64
Reduced Lunch (%)	3.95	3.12	0.00	31.18
Homeless (%)	5.15	6.79	0.00	46.39
Foster Care (%)	0.16	2.07	0.00	89.47
Migrant (%)	0.08	0.39	0.00	7.90
Armed Forces Parent (%)	0.25	2.91	0.00	87.89
Black or African American (%)	18.63	23.82	0.00	96.03
Hispanic or Latino (%)	25.91	24.86	0.00	100.00
Asian or Native Hawaiian/Other Pacific Islander (%)	7.13	12.27	0.00	94.34
American Indian or Alaska Native (%)	0.77	3.29	0.00	97.74
White (%)	43.91	36.15	0.00	100.00
Female (%)	48.54	6.99	0.00	100.00
Elementary School (%)	55.20	49.73	0.00	100.00
Middle School (%)	13.82	34.52	0.00	100.00
Junior High School (%)	1.78	13.23	0.00	100.00
Junior-Senior High School (%)	7.91	26.99	0.00	100.00
Senior High School (%)	18.49	38.82	0.00	100.00
K-12 School (%)	2.44	15.42	0.00	100.00
New York City (%)	38.52	48.67	0.00	100.00
Enrollment (100s)	5.67	4.14	0.04	58.37
Suspensions (2016-17)	3.19	7.05	0.00	180.85
<i>Dependent</i>				
Assault (Physical Injury)	2.82	5.28	0.00	76.00
Assault (Serious Physical Injury)	0.18	0.60	0.00	9.00
Forcible Sex Offenses	0.11	0.44	0.00	9.00
Other Sex Offenses	0.86	1.92	0.00	31.00
Weapons Possession (Routine Security Check)	0.35	1.37	0.00	34.00
Weapons Possession (Other)	0.81	1.52	0.00	22.00
Bullying (Excluding Cyber)	4.16	7.37	0.00	105.00
Bullying (Cyber)	0.87	1.98	0.00	24.00
Bomb Threat	0.04	0.24	0.00	5.00
False Alarm	0.15	0.57	0.00	18.00
Drugs	1.25	3.34	0.00	54.00
Alcohol	0.23	0.84	0.00	12.00
Homicide (#)	0.00	0.01	0.00	1.00

Notes: Sample size is 4,717 schools. Each variable is from the 2017-18 school year except for suspensions (2016-17).

Table 2: Sector Differences

Variables	District-Run	Charter
<i>Independent</i>		
English Language Learners (%)	*8.52	7.05
Students with Disabilities (%)	18.89	17.64
Free Lunch (%)	50.05	***73.38
Reduced Lunch (%)	3.80	***6.39
Homeless (%)	4.99	***7.72
Foster (%)	0.17	0.03
Migrant (%)	***0.08	0.00
Armed Forces Family (%)	0.26	0.02
Black or African American (%)	16.51	***52.60
Hispanic or Latino (%)	25.31	***35.52
Asian or Native Hawaiian/Other Pacific Islander (%)	***7.40	2.67
American Indian or Alaska Native (%)	0.76	0.92
White (%)	***46.23	6.65
Female (%)	48.43	***50.25
Elementary School (%)	54.91	59.93
Middle School (%)	***14.23	7.22
Junior High School (%)	1.85	0.72
Junior-Senior High School (%)	7.68	*11.55
Senior High School (%)	**18.92	11.55
K-12 School (%)	2.03	***9.03
New York City (%)	35.88	***80.87
Enrollment (100s)	**5.71	5.00
Suspensions (2016-17)	2.89	***8.27
<i>Dependent</i>		
Assault (Physical Injury)	0.58	0.53
Assault (Serious Physical Injury)	*0.04	0.01
Forcible Sex Offenses	*0.02	0.01
Other Sex Offenses	**0.16	0.09
Weapons Possession (Routine Security Check)	0.08	0.06
Weapons Possession (Other)	*0.15	0.11
Bullying (Excluding Cyber)	+0.84	0.66
Bullying (Cyber)	0.16	**0.24
Bomb Threat	0.01	0.01
False Alarm	0.04	0.02
Drugs	0.22	0.24
Alcohol	0.04	0.03
Homicide (#)	1.00	0.00

Notes: Sample size is 4,717 schools. One observation is missing for Free Lunch and Reduced Lunch. Thirty-one observations (0.66 percent) are missing for suspensions. Each variable is from the 2017-18 school year except for suspensions (2016-17). + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Each dependent variable is divided by student enrollment (in 100s) except for homicide.

Methods

Because each of the school climate outcomes is a count variable, the preferred model employed is a negative binomial regression model of the form:

$$Climate_Problems_i = \beta_0 + \beta_1 Charter_i + X_i + \varepsilon_i$$

Where the dependent variable of interest, *Climate_Problems*, is the count of climate problems which occurred in each school, *i*, during the 2017-18 school year in New York. The following 13 school climate outcomes are reported by the New York State Education Department for each school: homicide; forcible sex offense; other sex offense; assault with physical injury; assault with serious physical injury; weapons possession found by routine security check; other weapons possession; discrimination, harassment, and bullying excluding cyberbullying; cyberbullying; bomb threat; false alarm; use, possession, or sale of drugs; and use, possession, or sale of alcohol. The full definition of each dependent variable can be found at the NYSED website.⁹

The independent variable of interest, *Charter*, takes on the value of one if the observation is a public charter school and zero if the observation is a district-run public school. Vector *X* includes 18 controls for differences in schools (enrollment, enrollment squared, county, and grade levels served) and students (percent Female, percent Black or African American, percent Hispanic or Latino, percent Asian or Native Hawaiian/Other Pacific Islander, percent American Indian or Alaska Native, percent White, percent Free Lunch, percent Reduced Lunch, percent Homeless, percent Foster Care, percent Migrant, percent Armed Forces Parent, percent English

⁹ Glossary of Terms Used in the Annual Reporting of Incidents Concerning School Safety and Educational Climate (SSEC). Student Support Services. New York State Education Department. Retrieved from <http://www.p12.nysed.gov/sss/ssae/schoolsafety/vadir/glossary201718.html>

Language Learners, and percent Students with Disabilities) between sectors. The full definition of each control variable can be found at the NYSED website.¹⁰ The error term is ϵ .

Results based on models controlling for the number of suspensions in the school divided by total enrollment are also included to provide information on whether differences in this disciplinary practice explain differences in school climate between sectors. However, these results are not the preferred estimates because controlling for suspensions controls away the treatment of interest (school sector) and introduces simultaneity bias since school climate incidents can lead to suspensions (Reed, 2015). Standard errors are clustered at the school level for each model. Results from models using Poisson regression can be found in the Appendix. Private schools are excluded from each analysis because school climate data are only reported for public charter schools and district-run public schools.

Results

Results from the main analysis suggest that public charter schools report fewer school safety problems than district-run public schools in New York (Table 3 and Table 4). Public charter schools demonstrate school climate advantages for seven of the eight statistically significant results.¹¹ Specifically, public charter schools report fewer assaults with physical injuries, assaults with serious physical injuries, forcible sex offenses, other sex offenses, weapons possessions resulting from routine security checks, other weapons possessions, and false alarms than district-run public schools in 2017-18. These school climate differences tend to be large in size. The effect sizes are: a 44 percent of a standard deviation reduction in assaults with physical injuries, a

¹⁰ Glossary of Terms – Enrollment Data. New York State Education Department. Retrieved from <https://data.nysed.gov/glossary.php?report=enrollment>

¹¹ These results are robust to models using Poisson regression, which can be found in Table A1 and Table A2 in the Appendix. These results are similar when an ordinary least squares regression model which divides each dependent variable by student enrollment is used (Table A5 and Table A6).

59 percent of a standard deviation reduction in assaults with serious physical injuries, a 79 percent of a standard deviation reduction in forcible sex offenses, a 75 percent of a standard deviation reduction in other sex offenses, a 35 percent of a standard deviation reduction in weapons possessions resulting from routine security checks, a 68 percent of a standard deviation reduction in other weapons possessions, and a 42 percent of a standard deviation reduction in false alarms for public charter schools relative to district-run public schools. However, public charter schools reported more instances of cyberbullying than district-run public schools. This effect size is a 37 percent of a standard deviation increase in cyberbullying for public charter schools relative to district-run public schools.¹²

The eight statistically significant differences in climate outcomes tend to be more favorable for public charter schools in the model controlling for the total number of suspensions in the previous school year (Table 5 and Table 6).¹³ One marginally significant result (at a p-value of 7.5 percent) also suggests that public charter schools have fewer instances of non-cyberbullying in the model controlling for suspensions. However, results reported in Table 5 and Table 6 are not preferred because the models introduce simultaneity bias by controlling for student suspensions. Schools with more suspensions tend to report more school safety problems, likely because many school safety problems result in suspensions. Schools with higher proportions of students identified as qualifying for the federal lunch program and students with disabilities tend to report more school safety problems. Schools with higher proportions of female students tend to report fewer school safety problems.

¹² These standardized effect sizes are calculated by dividing the average marginal effects by the sample standard deviations reported in Table 1.

¹³ These results are robust to models using Poisson regression, which can be found in Table A3 and Table A4 in the Appendix. These results are similar when an ordinary least squares regression model which divides each dependent variable by student enrollment is used (Table A7 and Table A8).

Table 7 and Table 8 generally indicate that the school climate advantages for public charter schools are consistent across geographic locations and grade levels served. However, each of the six statistically significant heterogeneous effects by location indicates that charter school climate advantages are larger within New York City than the rest of the state for the following outcomes: assaults with physical injuries, assaults with serious physical injuries, forcible sex offenses, other sex offenses, false alarms, and non-cyber bullying. These six heterogeneous effects favoring public charter schools in New York City might be explained by additional competitive pressures in areas with more schools from which to choose. Additionally, 12 percent of schools within New York City are public charter schools, while only 2 percent of schools outside of New York City are public charter schools. The two statistically significant heterogeneous effects by school type both suggest that public charter school climate advantages are larger in elementary schools than non-elementary schools for the following outcomes: assaults with serious physical injuries and other sex offenses. These two heterogeneous effects favoring elementary public charter schools might also be explained by additional competitive pressures from families having larger numbers of elementary schools to choose from than schools serving other grade levels. The heterogeneous effects are similar for models controlling for differences in suspensions between sectors (Table 9 and Table 10).

Table 3: School Sector and Climate Problems

	Assault (Physical Injury)	Assault (Serious Physical Injury)	Forcible Sex Offenses	Other Sex Offenses	Weapons Possession (Routine Security Check)	Weapons Possession (Other)
Charter	-2.302*** (0.000)	-0.352*** (0.000)	-0.347*** (0.000)	-1.437*** (0.000)	-0.479** (0.002)	-1.031*** (0.000)
Enrollment (100s)	0.643*** (0.000)	0.053*** (0.000)	0.023*** (0.000)	0.225*** (0.000)	0.046*** (0.000)	0.207*** (0.000)
Enrollment Squared	-0.010*** (0.000)	-0.001*** (0.000)	-0.000** (0.002)	-0.003*** (0.000)	-0.000 (0.404)	-0.003*** (0.000)
Female (%)	-0.027+ (0.059)	-0.002 (0.189)	-0.003** (0.002)	-0.010+ (0.095)	-0.008** (0.001)	-0.005 (0.271)
Black (%)	0.022 (0.551)	0.009 (0.216)	0.004 (0.464)	0.060*** (0.000)	-0.029* (0.013)	0.036** (0.001)
Hispanic (%)	0.003 (0.946)	0.004 (0.551)	0.003 (0.569)	0.056*** (0.000)	-0.037** (0.002)	0.028* (0.013)
Asian (%)	-0.000 (0.998)	0.006 (0.425)	0.002 (0.641)	0.055*** (0.000)	-0.045*** (0.000)	0.027* (0.015)
American Indian (%)	-0.062 (0.215)	0.012 (0.230)	-0.003 (0.669)	0.049* (0.012)	-0.016 (0.297)	0.011 (0.688)
White (%)	0.009 (0.801)	0.007 (0.348)	0.002 (0.693)	0.055*** (0.000)	-0.040*** (0.001)	0.027* (0.014)
Free Lunch (%)	0.027* (0.010)	0.005** (0.003)	-0.000 (0.838)	-0.002 (0.621)	0.011** (0.001)	0.024*** (0.000)
Reduced Lunch (%)	-0.032 (0.417)	0.007 (0.207)	0.000 (0.939)	0.032* (0.045)	-0.022 (0.122)	0.030* (0.014)
Homeless (%)	0.072*** (0.000)	0.005+ (0.064)	-0.002 (0.299)	-0.002 (0.793)	-0.000 (0.999)	0.007 (0.384)
Foster (%)	-0.007 (0.926)	0.004 (0.524)	0.004 (0.339)	0.031 (0.265)	0.010 (0.122)	0.000 (0.977)
Migrant (%)	-0.761* (0.048)	0.029 (0.622)	-0.042 (0.530)	0.101 (0.650)	0.063 (0.447)	-0.033 (0.753)
Armed Forces (%)	-0.061 (0.186)	-0.012* (0.027)	-0.007+ (0.063)	0.008 (0.667)	-0.054 (0.270)	0.021 (0.209)
ELL (%)	0.006 (0.634)	0.001 (0.507)	0.000 (0.819)	0.013* (0.024)	0.000 (0.943)	-0.010* (0.034)
SWD (%)	0.068*** (0.001)	0.007*** (0.001)	0.000 (0.860)	0.020* (0.016)	-0.005 (0.392)	0.014* (0.022)
Pseudo R-Squared	0.0630	0.1568	0.2512	0.1176	0.2409	0.1616
N	4716	4716	4716	4716	4716	4716

Notes: P-values in parentheses. + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Average marginal effects are reported after negative binomial regression. Each observation is weighted by student enrollment. Each model includes county and grade fixed effects.

Table 4: School Sector and Climate Problems

	Bullying (Excluding Cyber)	Bullying (Cyber)	Bomb Threat	False Alarm	Drugs	Alcohol
Charter	-0.065 (0.926)	0.738*** (0.001)	0.043 (0.170)	-0.240** (0.003)	0.550 (0.170)	0.063 (0.589)
Enrollment (100s)	0.701*** (0.000)	0.152*** (0.000)	0.014*** (0.000)	0.032*** (0.000)	0.327*** (0.000)	0.054*** (0.000)
Enrollment Squared	-0.012*** (0.000)	-0.003*** (0.000)	-0.000*** (0.000)	-0.001*** (0.000)	-0.004*** (0.000)	-0.001*** (0.000)
Female (%)	-0.025 (0.193)	0.006 (0.270)	-0.000 (0.919)	0.000 (0.900)	-0.029*** (0.001)	-0.007* (0.015)
Black (%)	0.074 (0.115)	0.022 (0.121)	-0.002 (0.329)	-0.003 (0.425)	-0.015 (0.649)	0.013 (0.199)
Hispanic (%)	0.089+ (0.065)	0.024+ (0.094)	-0.003+ (0.097)	-0.004 (0.227)	-0.006 (0.861)	0.013 (0.180)
Asian (%)	0.101* (0.033)	0.027+ (0.056)	-0.003 (0.164)	-0.005 (0.139)	-0.015 (0.669)	0.007 (0.462)
American Indian (%)	-0.011 (0.866)	0.001 (0.947)	-0.011 (0.111)	0.002 (0.581)	0.040 (0.364)	0.012 (0.395)
White (%)	0.131** (0.004)	0.036** (0.009)	-0.001 (0.667)	-0.003 (0.342)	-0.008 (0.803)	0.014 (0.150)
Free Lunch (%)	0.045** (0.002)	0.006 (0.154)	0.001* (0.030)	0.004** (0.007)	0.030*** (0.000)	0.001 (0.746)
Reduced Lunch (%)	0.041 (0.399)	0.011 (0.431)	0.004+ (0.073)	-0.000 (0.963)	0.017 (0.543)	0.011 (0.178)
Homeless (%)	-0.008 (0.812)	0.005 (0.636)	0.003** (0.007)	-0.000 (0.935)	0.029 (0.351)	-0.004 (0.552)
Foster (%)	-0.047 (0.390)	-0.020 (0.586)	-0.021 (0.414)	0.006 (0.264)	0.058** (0.003)	0.012 (0.329)
Migrant (%)	0.404 (0.299)	0.012 (0.920)	0.016 (0.195)	-0.001 (0.962)	-0.331 (0.182)	0.095 (0.224)
Armed Forces (%)	-0.025 (0.675)	0.024 (0.169)	0.010 (0.166)	0.007+ (0.056)	0.056* (0.020)	-0.014 (0.137)
ELL (%)	-0.043* (0.028)	-0.010+ (0.063)	0.001 (0.248)	0.001 (0.550)	-0.045*** (0.000)	-0.001 (0.831)
SWD (%)	0.078** (0.002)	0.017* (0.023)	0.001 (0.385)	0.003 (0.113)	0.028+ (0.061)	-0.000 (0.964)
Pseudo R-Squared	0.0466	0.1098	0.1429	0.0879	0.2475	0.2350
N	4716	4716	4716	4716	4716	4716

Notes: P-values in parentheses. + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Average marginal effects are reported after negative binomial regression. Each observation is weighted by student enrollment. Each model includes county and grade fixed effects.

Table 5: School Sector and Climate Problems (Controlling for Suspensions)

	Assault (Physical Injury)	Assault (Serious Physical Injury)	Forcible Sex Offenses	Other Sex Offenses	Weapons Possession (Routine Security Check)	Weapons Possession (Other)
Charter	-3.231*** (0.000)	-0.381*** (0.000)	-0.362*** (0.000)	-1.961*** (0.000)	-0.496** (0.002)	-1.308*** (0.000)
Enrollment (100s)	0.648*** (0.000)	0.052*** (0.000)	0.023*** (0.000)	0.238*** (0.000)	0.046*** (0.000)	0.206*** (0.000)
Enrollment Squared	-0.010*** (0.000)	-0.001*** (0.000)	-0.000** (0.002)	-0.003*** (0.000)	-0.000 (0.395)	-0.003*** (0.000)
Female (%)	-0.024+ (0.092)	-0.002 (0.194)	-0.003** (0.002)	-0.009 (0.174)	-0.008** (0.001)	-0.004 (0.368)
Black (%)	0.021 (0.595)	0.008 (0.231)	0.004 (0.456)	0.072*** (0.001)	-0.029* (0.014)	0.036** (0.001)
Hispanic (%)	0.005 (0.888)	0.004 (0.557)	0.003 (0.553)	0.071** (0.001)	-0.037** (0.002)	0.030** (0.009)
Asian (%)	-0.001 (0.978)	0.006 (0.441)	0.003 (0.628)	0.068** (0.001)	-0.044*** (0.000)	0.028* (0.014)
American Indian (%)	-0.060 (0.242)	0.012 (0.225)	-0.003 (0.690)	0.064** (0.009)	-0.016 (0.307)	0.012 (0.650)
White (%)	0.013 (0.723)	0.007 (0.355)	0.002 (0.673)	0.070*** (0.001)	-0.040** (0.001)	0.029** (0.009)
Free Lunch (%)	0.019+ (0.073)	0.004** (0.005)	-0.000 (0.797)	-0.008 (0.169)	0.011** (0.002)	0.021*** (0.000)
Reduced Lunch (%)	-0.025 (0.523)	0.007 (0.204)	0.000 (0.922)	0.041* (0.034)	-0.022 (0.122)	0.032** (0.010)
Homeless (%)	0.079*** (0.000)	0.005+ (0.062)	-0.002 (0.305)	0.003 (0.809)	-0.000 (0.992)	0.009 (0.316)
Foster (%)	-0.083 (0.373)	0.002 (0.807)	0.001 (0.822)	-0.014 (0.702)	0.009 (0.202)	-0.023 (0.199)
Migrant (%)	-0.779* (0.048)	0.028 (0.634)	-0.043 (0.518)	0.105 (0.659)	0.065 (0.438)	-0.035 (0.749)
Armed Forces (%)	-0.065 (0.161)	-0.012* (0.025)	-0.007+ (0.062)	0.007 (0.742)	-0.054 (0.268)	0.020 (0.229)
ELL (%)	0.007 (0.576)	0.001 (0.484)	0.000 (0.822)	0.014* (0.035)	0.000 (0.920)	-0.010* (0.039)
SWD (%)	0.059** (0.003)	0.007** (0.001)	0.000 (0.920)	0.014 (0.114)	-0.005 (0.392)	0.011+ (0.095)
Suspensions (%)	0.139** (0.002)	0.004 (0.181)	0.002 (0.232)	0.080* (0.014)	0.002 (0.480)	0.038** (0.002)
Pseudo R-Squared	0.0649	0.1577	0.2511	0.1224	0.2408	0.1651
N	4685	4685	4685	4685	4685	4685

Notes: P-values in parentheses. + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Average marginal effects are reported after negative binomial regression. Each observation is weighted by student enrollment. Each model includes county and grade fixed effects.

Table 6: School Sector and Climate Problems (Controlling for Suspensions)

	Bullying (Excluding Cyber)	Bullying (Cyber)	Bomb Threat	False Alarm	Drugs	Alcohol
Charter	-1.444+ (0.075)	0.524* (0.018)	0.042 (0.179)	-0.255** (0.002)	-0.166 (0.768)	-0.004 (0.977)
Enrollment (100s)	0.706*** (0.000)	0.149*** (0.000)	0.014*** (0.000)	0.032*** (0.000)	0.378*** (0.000)	0.055*** (0.000)
Enrollment Squared	-0.012*** (0.000)	-0.003*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.005*** (0.001)	-0.001*** (0.000)
Female (%)	-0.018 (0.349)	0.007 (0.194)	-0.000 (0.924)	0.000 (0.910)	-0.033** (0.010)	-0.007* (0.018)
Black (%)	0.092+ (0.073)	0.023 (0.114)	-0.002 (0.327)	-0.003 (0.433)	-0.011 (0.781)	0.014 (0.164)
Hispanic (%)	0.122* (0.024)	0.027+ (0.062)	-0.004+ (0.098)	-0.004 (0.243)	0.009 (0.817)	0.016 (0.133)
Asian (%)	0.128* (0.016)	0.029* (0.044)	-0.003 (0.164)	-0.005 (0.144)	-0.008 (0.845)	0.009 (0.390)
American Indian (%)	0.010 (0.889)	0.005 (0.830)	-0.011 (0.112)	0.002 (0.545)	0.062 (0.265)	0.014 (0.332)
White (%)	0.163** (0.002)	0.038** (0.006)	-0.001 (0.669)	-0.003 (0.369)	0.004 (0.918)	0.016 (0.111)
Free Lunch (%)	0.026+ (0.082)	0.003 (0.458)	0.001* (0.034)	0.003** (0.010)	0.020* (0.046)	-0.000 (0.860)
Reduced Lunch (%)	0.056 (0.272)	0.012 (0.410)	0.004+ (0.074)	-0.000 (0.963)	0.020 (0.533)	0.011 (0.179)
Homeless (%)	0.002 (0.947)	0.007 (0.568)	0.003** (0.007)	-0.000 (0.947)	0.041 (0.292)	-0.005 (0.536)
Foster (%)	-0.153 (0.126)	-0.042 (0.396)	-0.021 (0.412)	0.005 (0.382)	0.002 (0.941)	0.006 (0.669)
Migrant (%)	0.489 (0.236)	0.020 (0.864)	0.016 (0.196)	-0.000 (0.996)	-0.404 (0.207)	0.099 (0.215)
Armed Forces (%)	-0.028 (0.673)	0.024 (0.178)	0.010 (0.166)	0.007+ (0.055)	0.062* (0.041)	-0.014 (0.142)
ELL (%)	-0.042* (0.045)	-0.010+ (0.060)	0.001 (0.244)	0.001 (0.555)	-0.054** (0.007)	-0.000 (0.892)
SWD (%)	0.070** (0.010)	0.014+ (0.063)	0.001 (0.410)	0.003 (0.148)	0.019 (0.296)	-0.001 (0.775)
Suspensions (%)	0.257*** (0.000)	0.032** (0.002)	0.000 (0.758)	0.002 (0.300)	0.132+ (0.066)	0.009 (0.153)
Pseudo R-Squared	0.0499	0.1116	0.1427	0.0881	0.2513	0.2362
N	4685	4685	4685	4685	4685	4685

Notes: P-values in parentheses. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. Average marginal effects are reported after negative binomial regression. Each observation is weighted by student enrollment. Each model includes county and grade fixed effects.

Table 7: Heterogeneous Effects

	Assault (Physical Injury)	Assault (Serious Physical Injury)	Forcible Sex Offenses	Other Sex Offenses	Weapons Possession (Routine Security Check)	Weapons Possession (Other)
New York City	-3.541*** (0.000)	-0.503*** (0.000)	-0.341*** (0.000)	-1.665*** (0.000)	-0.456** (0.006)	-1.060*** (0.000)
Rest of State	1.577 (0.105)	0.068 (0.595)	-3.928 (.)	-0.080 (0.854)	-0.574+ (0.089)	-0.936*** (0.000)
Difference	5.118*** (0.000)	0.571*** (0.001)	-3.587*** (0.000)	1.585** (0.001)	-0.118 (0.740)	0.124 (0.672)
Elementary	-3.160*** (0.001)	-0.415* (0.011)	-0.302** (0.003)	-2.150*** (0.000)	-0.280 (0.395)	-1.290*** (0.000)
Other School Type	-1.225+ (0.078)	-0.311** (0.002)	-0.376** (0.005)	-0.748* (0.010)	-0.518** (0.002)	-0.862*** (0.000)
Difference	1.934+ (0.088)	0.103 (0.572)	-0.074 (0.647)	1.402** (0.004)	-0.237 (0.506)	0.428 (0.188)
N	4716	4716	4716	4716	4716	4716

Notes: P-values in parentheses. + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Average marginal effects are reported after negative binomial regression. Each observation is weighted by student enrollment. Each model includes all controls except for suspensions. The standard errors could not be calculated for column three for “Rest of State” due to concavity problems.

Table 8: Heterogeneous Effects

	Bullying (Excluding Cyber)	Bullying (Cyber)	Bomb Threat	False Alarm	Drugs	Alcohol
New York City	-1.608* (0.045)	0.684** (0.005)	0.040 (0.272)	-0.342*** (0.001)	0.610 (0.178)	0.091 (0.477)
Rest of State	4.568*** (0.000)	0.972** (0.006)	0.058 (0.155)	-0.017 (0.857)	0.366 (0.593)	-0.030 (0.879)
Difference	6.176*** (0.000)	0.288 (0.471)	0.018 (0.703)	0.325** (0.005)	-0.244 (0.751)	-0.121 (0.578)
Elementary	-0.210 (0.826)	0.643 (0.105)	0.051 (0.341)	-0.187* (0.039)	1.651* (0.036)	0.377 (0.132)
Other School Type	0.118 (0.894)	0.805*** (0.000)	0.037 (0.169)	-0.279* (0.013)	0.291 (0.482)	-0.012 (0.917)
Difference	0.328 (0.789)	0.162 (0.714)	-0.014 (0.793)	-0.092 (0.500)	-1.360 (0.109)	-0.388 (0.138)
N	4716	4716	4716	4716	4716	4716

Notes: P-values in parentheses. + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Average marginal effects are reported after negative binomial regression. Each observation is weighted by student enrollment. Each model includes all controls except for suspensions.

Table 9: Heterogeneous Effects (Controlling for Suspensions)

	Assault (Physical Injury)	Assault (Serious Physical Injury)	Forcible Sex Offenses	Other Sex Offenses	Weapons Possession (Routine Security Check)	Weapons Possession (Other)
New York City	-4.278*** (0.000)	-0.530*** (0.000)	-0.356*** (0.000)	-2.227*** (0.000)	-0.471** (0.005)	-1.349*** (0.000)
Rest of State	0.513 (0.617)	0.043 (0.745)	-3.713 (.)	-0.370 (0.512)	-0.600+ (0.084)	-1.169*** (0.000)
Difference	4.791*** (0.000)	0.573*** (0.001)	-3.357*** (0.000)	1.857** (0.007)	-0.130 (0.722)	0.180 (0.519)
Elementary	-4.208*** (0.000)	-0.459* (0.010)	-0.314** (0.002)	-2.815*** (0.000)	-0.311 (0.365)	-1.531*** (0.000)
Other School Type	-2.037** (0.010)	-0.332** (0.002)	-0.392** (0.005)	-1.181** (0.007)	-0.530** (0.002)	-1.161*** (0.000)
Difference	2.171+ (0.071)	0.126 (0.514)	-0.079 (0.628)	1.634* (0.014)	-0.219 (0.553)	0.370 (0.249)
N	4685	4685	4685	4685	4685	4685

Notes: P-values in parentheses. + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Average marginal effects are reported after negative binomial regression. Each observation is weighted by student enrollment. Each model includes all controls. The standard errors could not be calculated for column three for “Rest of State” due to concavity problems.

Table 10: Heterogeneous Effects (Controlling for Suspensions)

	Bullying (Excluding Cyber)	Bullying (Cyber)	Bomb Threat	False Alarm	Drugs	Alcohol
New York City	-3.222*** (0.001)	0.465+ (0.058)	0.038 (0.288)	-0.359*** (0.000)	-0.167 (0.788)	0.022 (0.874)
Rest of State	3.793** (0.002)	0.780* (0.034)	0.058 (0.161)	-0.028 (0.775)	-0.165 (0.839)	-0.085 (0.677)
Difference	7.015*** (0.000)	0.315 (0.434)	0.020 (0.681)	0.330** (0.005)	0.002 (0.999)	-0.107 (0.630)
Elementary	-1.188 (0.269)	0.467 (0.243)	0.051 (0.342)	-0.201* (0.026)	1.162 (0.217)	0.312 (0.234)
Other School Type	-1.794+ (0.053)	0.565* (0.014)	0.036 (0.194)	-0.295* (0.011)	-0.466 (0.442)	-0.077 (0.527)
Difference	-0.606 (0.628)	0.097 (0.826)	-0.015 (0.784)	-0.094 (0.490)	-1.628 (0.125)	-0.389 (0.149)
N	4685	4685	4685	4685	4685	4685

Notes: P-values in parentheses. + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Average marginal effects are reported after negative binomial regression. Each observation is weighted by student enrollment. Each model includes all controls.

Discussion

After controlling for observable differences in students and schools between sectors, I find that public charter schools tend to report fewer school climate problems than district-run public schools in New York state in the 2017-18 school year. The charter school climate advantages are more pronounced in New York City than the rest of the state. These results suggest that expanding access to public charter schools in New York could reduce school climate problems experienced by students.

New York could expand access to public charter schools by increasing the cap on the number of charter schools that are allowed to open in the state. As of December 2019, zero public charters are available to be issued in New York City and 96 public charters are available to be issued throughout the rest of the state.¹⁴ The most recent estimates suggest that around 47,800 students, or about two-thirds of all applicants, are on public charter school waitlists in New York City.¹⁵ The rest of the state could increase access to public charter schools by equalizing per pupil funding between sectors to reduce financial barriers to opening and expanding public charter schools (Batdorff et al., 2005; Batdorff et al., 2010; Batdorff et al., 2014; DeAngelis et al., 2018; Wolf et al., 2017).

This study has important limitations. Although several observable characteristics were included as control variables, the results are descriptive rather than causal. Students who select into public charter schools likely differ on unobserved background and family characteristics. However, the direction of the selection bias, if any remains, is unclear. Students who attend public charter schools may be more advantaged than students in district schools on unobserved

¹⁴ New York Charter Cap Status. New York City Charter School Center. Retrieved from <https://www.nyccharterschools.org/resources/cap>

¹⁵ 2017-18 Enrollment Lottery Estimates. New York City Charter School Center. Retrieved from <https://www.nyccharterschools.org/growth-demand>

characteristics such as motivation and parental engagement. On the other hand, students who attend public charter schools could be less advantaged than students in district-run public schools since less advantaged families tend to be more dissatisfied with their residentially assigned public schools. In addition, although all schools are required to report each type of school climate issue to the New York State Education Department, it is possible that public charter schools and district-run public schools systematically differ in reporting these incidents, which would bias comparisons between sectors.¹⁶ These observed school climate differences between sectors might also differ by geographic location and school year.

Although this study describes observed differences in school climate problems between sectors, it cannot tell us why public charter schools demonstrate advantages relative to district-run schools in New York. Because this particular limitation is also true of random assignment evaluations, future qualitative research is needed to provide information on why quantitative studies generally suggest access to public charter schools leads to improvements in reports of school safety and climate.

¹⁶ Data Collection for the 2018-19 School Year Incidents. School Safety and the Educational Climate (SSEC). New York State Education Department. Retrieved from http://www.p12.nysed.gov/irs/school_safety/school_safety_data_collection.html

References

- Altenhofen, S., Berends, M., & White, T. G. (2016). School choice decision making among suburban, high-income parents. *AERA Open*, 2(1).
- Angrist, J. D., Cohodes, S. R., Dynarski, S. M., Pathak, P. A., & Walters, C. R. (2016). Stand and deliver: Effects of Boston's charter high schools on college preparation, entry, and choice. *Journal of Labor Economics*, 34(2), 275-318.
- Barrett, E. J. (2003). Evaluating education reform: Students' views of their charter school experience. *Journal of Educational Research*, 96(6), 351-358.
- Batdorff, M., Finn, C. E. Jr., Hassel, B., Maloney, L., Osberg, E., Speakman, S., & Terrell, M. G. (2005). Charter school funding: Inequity's next frontier. Washington, DC: Thomas B. Fordham Institute.
- Batdorff, M., Doyle, D., Finch, W. H., & Hassel, B. (2010). Charter school funding: Inequity persists. School Choice Demonstration Project, University of Arkansas.
- Batdorff, M., Maloney, L. D., May, J. F., Speakman, S. T., Wolf, P. J., & Cheng, A. (2014). Charter school funding: Inequity expands. School Choice Demonstration Project, University of Arkansas. Retrieved from <https://scholarworks.uark.edu/scdp/7/>
- Bedrick, J., & Burke, L. M. (2018). Surveying Florida scholarship families: Experiences and satisfaction with Florida's tax-credit scholarship program. EdChoice.
- Bennett, D. A. (2001). How can I deal with missing data in my study? *Australian and New Zealand Journal of Public Health*, 25(5), 464-469.
- Betts, J. R., & Tang, Y. E. (2014). A Meta-Analysis of the Literature on the Effect of Charter Schools on Student Achievement. Center on Reinventing Public Education.

- Betts, J. R., & Tang, Y. E. (2019). The effect of charter schools on student achievement. *School choice at the crossroads: Research perspectives*, 67-89.
- Blazar, D., & Kraft, M. A. (2017). Teacher and teaching effects on students' attitudes and behaviors. *Educational evaluation and policy analysis*, 39(1), 146-170.
- Catt, A. D., & Rhinesmith, E. (2017). Why Indiana Parents Choose: A Cross-Sector Survey of Parents' Views in a Robust School Choice Environment. EdChoice.
- Cheng, A., Trivitt, J. R., & Wolf, P. J. (2016). School choice and the branding of Milwaukee private schools. *Social Science Quarterly*, 97(2), 362-375.
- Chubb, J. E., & Moe, T. M. (1988). Politics, markets, and the organization of schools. *American Political Science Review*, 82(4), 1065-1087.
- Cordes, S. A. (2018). In pursuit of the common good: The spillover effects of charter schools on public school students in New York City. *Education Finance and Policy*, 13(4), 484-512.
- Davis, M., & Heller, B. (2019). No Excuses charter schools and college enrollment: New evidence from a high school network in Chicago. *Education Finance and Policy*, 14(3), 414-440.
- DeAngelis, C., & Dills, A. K. (2018). The effects of school choice on mental health. Available at SSRN: <https://ssrn.com/abstract=3272550>
- DeAngelis, C. A., & Flanders, W. (2019). The education marketplace: The predictors of school growth and closures in Milwaukee. *Journal of School Choice*, 13(3), 355-379.
- DeAngelis, C. A., & Holmes Erickson, H. (2018). What leads to successful school choice programs? A review of the theories and evidence. *Cato Journal*, 38(1), 247-263.

- DeAngelis, C. A., & Lueken, M. F. (2020). School Sector and Climate: An Analysis of K–12 Safety Policies and School Climates in Indiana. *Social Science Quarterly*, 101(1), 376-405.
- DeAngelis, C. A., & Wolf, P. J. (2019). Private school choice and crime: Evidence from Milwaukee. *Social Science Quarterly*, 100(6), 2302-2315.
- DeAngelis, C. A., Wolf, P. J., Maloney, L. D., & May, J. F. (2018). Charter school funding: (More) inequity in the city. School Choice Demonstration Project, University of Arkansas.
- Deming, D. J. (2011). Better schools, less crime? *Quarterly Journal of Economics*, 126(4), 2063-2115.
- Diliberti, M., Jackson, M., Correa, S., Padgett, Z., & Hansen, R. (2019). Crime, Violence, Discipline, and Safety in U.S. Public Schools: Findings From the School Survey on Crime and Safety: 2017-18. U.S. Department of Education. NCES 2019-061.
- Dills, A. K., & Hernández-Julián, R. (2011). More choice, less crime. *Education Finance and Policy*, 6(2), 246-266.
- Dobbie, W., & Fryer Jr, R. G. (2015). The medium-term impacts of high-achieving charter schools. *Journal of Political Economy*, 123(5), 985-1037.
- Dobbie, W. S., & Fryer Jr, R. G. (2016). Charter schools and labor market outcomes (No. w22502). National Bureau of Economic Research.
- Egalite, A. J. (2013). Measuring competitive effects from school voucher programs: A systematic review. *Journal of School Choice*, 7(4), 443-464.

- Fan, W., Williams, C. M., & Corkin, D. M. (2011). A multilevel analysis of student perceptions of school climate: The effect of social and academic risk factors. *Psychology in the Schools, 48*(6), 632-647.
- Farina, K. A. (2019). Promoting a Culture of Bullying: Understanding the Role of School Climate and School Sector. *Journal of School Choice, 13*(1), 94-120.
- Ferreira, M. M., & Liang, P. J. (2012). Information asymmetry and equilibrium monitoring in education. *Journal of Public Economics, 96*(1-2), 237-254.
- Foreman, L. M. (2017). Educational attainment effects of public and private school choice. *Journal of School Choice, 11*(4), 642-654.
- Friedman, M. (1955). The role of government in education. In R. A. Solo (Ed.), *Economics and the public interest* (pp. 123-144). New Brunswick, NJ: Rutgers University Press.
- Furgeson, J., Gill, B., Haimson, J., Killewald, A., McCullough, M., Nichols-Barrer, I., ... & Hill, P. (2012). Charter-school management organizations: Diverse strategies and diverse student impacts. Mathematica Policy Research, Inc.
- Gleason, P., Clark, M., Tuttle, C. C., Dwayer, E., & Silverberg, M. (2010). The evaluation of charter school impacts. NCEE 2010-4029. National Center for Education Evaluation and Regional Assistance. Institute of Education Sciences. U.S. Department of Education.
- Hamlin, D. (2017). Are charter schools safer in deindustrialized cities with high rates of crime? Testing hypotheses in Detroit. *American Educational Research Journal, 54*(4), 725-756.
- Hanushek, E. A., Kain, J. F., Rivkin, S. G., & Branch, G. F. (2007). Charter school quality and parental decision making with school choice. *Journal of Public Economics, 91*(5-6), 823-848.

- Harris, D. (2017). Why managed competition is better than a free market for schooling. Brookings Institution.
- Holmes Erickson, H. (2017). How do parents choose schools, and what schools do they choose? A literature review of private school choice programs in the United States. *Journal of School Choice*, 11(4), 491-506.
- Howell, W. G., & Peterson, P. E. (2006). *The education gap: Vouchers and urban schools*. Brookings Institution Press.
- Hoxby, C. M. (Ed.). (2007). *The economics of school choice*. Chicago, IL: University of Chicago Press.
- Jabbar, H., Fong, C. J., Germain, E., Li, D., Sanchez, J., Sun, W. L., & Devall, M. (2019). The Competitive Effects of School Choice on Student Achievement: A Systematic Review. *Educational Policy*.
- Kelly, J. P., & Scafidi, B. (2013). More than scores: An analysis of why and how parents choose private schools. Friedman Foundation for Educational Choice.
- Lleras, C. (2008). Hostile school climates: Explaining differential risk of student exposure to disruptive learning environments in high school. *Journal of School Violence*, 7(3), 105-135.
- Lubienski, C. (2007). Marketing schools: Consumer goods and competitive incentives for consumer information. *Education and Urban Society*, 40(1), 118-141.
- McEachin, A., Lauen, D. L., Fuller, S. C., & Perera, R. M. (2019). Social returns to private choice? Effects of charter schools on behavioral outcomes, arrests, and civic participation. EdWorkingPaper No. 19-90. Annenberg Institute at Brown University.

- Musu, L., Zhang, A., Wang, K., Zhang, J., & Oudekerk, B. A. (2019). Indicators of school crime and safety: 2018. U.S. Department of Education. NCES 2019-047.
- Prieto, L. M., Agüero-Valverde, J., Zarrate-Cardenas, G., & Van Maarseveen, M. (2019). Parental preferences in the choice for a specialty school. *Journal of School Choice, 13*(2), 198-227.
- Reed, W. R. (2015). On the practice of lagging variables to avoid simultaneity. *Oxford Bulletin of Economics and Statistics, 77*(6), 897-905.
- Sass, T. R., Zimmer, R. W., Gill, B. P., & Booker, T. K. (2016). Charter high schools' effects on long-term attainment and earnings. *Journal of Policy Analysis and Management, 35*(3), 683-706.
- Schafer, J. L. (1999). Multiple imputation: a primer. *Statistical Methods in Medical Research, 8*(1), 3-15.
- Schwalbach, J., & DeAngelis, C. A. (2020). A literature review of safety in private and public charter schools. Paper presented at the International School Choice and Reform Conference, January 19, 2020, Ft. Lauderdale, Florida.
- Shakeel, M. D., & DeAngelis, C. A. (2017). Who is more free? A comparison of the decision-making of private and public school principals. *Journal of School Choice, 11*(3), 442-457.
- Shakeel, M. D., & DeAngelis, C. A. (2018). Can private schools improve school climate? Evidence from a nationally representative sample. *Journal of School Choice, 12*(3), 426-445.
- Trivitt, J. R., & Wolf, P. J. (2011). School choice and the branding of Catholic schools. *Education Finance and Policy, 6*(2), 202-245.

- Tuttle, C. C., Gleason, P., Knechtel, V., Nichols-Barrer, I., Booker, K., Chojnacki, G., ... & Goble, L. (2015). Understanding the Effect of KIPP as It Scales: Volume I, Impacts on Achievement and Other Outcomes. Final Report of KIPP's "Investing in Innovation Grant Evaluation." Mathematica Policy Research, Inc.
- Waasdorp, T. E., Berg, J., Debnam, K. J., Stuart, E. A., & Bradshaw, C. P. (2018). Comparing social, emotional, and behavioral health risks among youth attending public versus parochial schools. *Journal of School Violence, 17*(3), 381-391.
- Webber, A., Rui, N., Garrison-Mogren, R., Olsen, R. B., & Gutmann, B. (2019). Evaluation of the DC Opportunity Scholarship Program: Impacts Three Years after Students Applied. Technical Appendix. NCEE 2019-4006. National Center for Education Evaluation and Regional Assistance.
- Witte, J. F., Wolf, P. J., Cowen, J. M., Fleming, D. J., & Lucas-McLean, J. (2008). MPCP longitudinal educational growth study baseline report. School Choice Demonstration Project. University of Arkansas.
- Wolf, P. J., Gutmann, B., Puma, M., Kisida, B., Rizzo, L., Eissa, N., & Carr, M. (2010). Evaluation of the DC Opportunity Scholarship Program: Final Report. NCEE 2010-4018. National Center for Education Evaluation and Regional Assistance.
- Wolf, P. J., Maloney, L. D., May, J. F., & DeAngelis, C. A. (2017). Charter school funding: Inequity in the city. School Choice Demonstration Project, University of Arkansas.
- Zimmer, R., Buddin, R., Smith, S. A., & Duffy, D. (2019). Nearly three decades into the charter school movement, what has research told us about charter schools? EdWorkingPaper No. 19-156. Annenberg Institute at Brown University.

Appendix

Table A1: School Sector and Climate Problems

	Assault (Physical Injury)	Assault (Serious Physical Injury)	Forcible Sex Offenses	Other Sex Offenses	Weapons Possession (Routine Security Check)	Weapons Possession (Other)
Charter	-2.127*** (0.000)	-0.341*** (0.000)	-0.355*** (0.000)	-1.206*** (0.000)	-0.676*** (0.000)	-0.954*** (0.000)
Enrollment (100s)	0.580*** (0.000)	0.051*** (0.000)	0.023*** (0.000)	0.179*** (0.000)	0.053*** (0.000)	0.180*** (0.000)
Enrollment Squared	-0.009*** (0.000)	-0.001*** (0.000)	-0.000** (0.004)	-0.003*** (0.000)	-0.000 (0.198)	-0.002*** (0.000)
Female (%)	-0.011 (0.387)	-0.002 (0.297)	-0.003** (0.003)	-0.006 (0.199)	-0.009*** (0.001)	-0.002 (0.619)
Black (%)	0.042 (0.407)	0.011 (0.241)	0.003 (0.596)	0.050** (0.004)	-0.024+ (0.087)	0.036** (0.003)
Hispanic (%)	0.014 (0.777)	0.006 (0.495)	0.002 (0.681)	0.049** (0.006)	-0.034* (0.016)	0.030* (0.015)
Asian (%)	0.015 (0.766)	0.008 (0.365)	0.002 (0.775)	0.048** (0.008)	-0.041** (0.005)	0.029* (0.019)
American Indian (%)	-0.051 (0.440)	0.013 (0.219)	-0.004 (0.668)	0.038+ (0.098)	-0.026 (0.103)	0.009 (0.774)
White (%)	0.031 (0.537)	0.009 (0.351)	0.001 (0.853)	0.046** (0.006)	-0.035* (0.012)	0.027* (0.026)
Free Lunch (%)	0.032* (0.012)	0.005** (0.004)	-0.000 (0.776)	-0.004 (0.466)	0.012* (0.011)	0.021*** (0.000)
Reduced Lunch (%)	-0.063 (0.182)	0.006 (0.279)	0.000 (0.994)	0.016 (0.348)	-0.033+ (0.064)	0.024+ (0.077)
Homeless (%)	0.029 (0.150)	0.005+ (0.068)	-0.002 (0.343)	-0.005 (0.579)	0.003 (0.758)	0.007 (0.463)
Foster (%)	-0.014 (0.797)	0.001 (0.706)	0.004 (0.349)	0.025+ (0.069)	0.016* (0.046)	0.003 (0.820)
Migrant (%)	-0.576 (0.125)	0.043 (0.512)	-0.043 (0.530)	0.030 (0.848)	0.066 (0.434)	-0.028 (0.789)
Armed Forces (%)	-0.041 (0.292)	-0.011* (0.023)	-0.006+ (0.085)	0.012 (0.357)	-0.123 (0.321)	0.024 (0.100)
ELL (%)	0.011 (0.407)	0.000 (0.779)	0.000 (0.837)	0.010* (0.047)	-0.001 (0.707)	-0.008 (0.134)
SWD (%)	0.072*** (0.000)	0.008*** (0.000)	0.000 (0.861)	0.018* (0.014)	-0.011 (0.108)	0.012+ (0.056)
N	4716	4716	4716	4716	4716	4716

Notes: P-values in parentheses. + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Average marginal effects are reported after Poisson regression. Each observation is weighted by student enrollment. Each model includes county and grade fixed effects.

Table A2: School Sector and Climate Problems

	Bullying (Excluding Cyber)	Bullying (Cyber)	Bomb Threat	False Alarm	Drugs	Alcohol
Charter	0.579 (0.421)	0.826*** (0.000)	0.046 (0.202)	-0.285* (0.030)	0.552 (0.166)	0.086 (0.437)
Enrollment (100s)	0.682*** (0.000)	0.169*** (0.000)	0.016*** (0.000)	0.031*** (0.000)	0.254*** (0.000)	0.051*** (0.000)
Enrollment Squared	-0.011*** (0.000)	-0.003*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.003*** (0.000)	-0.001*** (0.000)
Female (%)	-0.017 (0.316)	0.006 (0.293)	0.000 (0.805)	-0.000 (0.908)	-0.032** (0.002)	-0.006+ (0.065)
Black (%)	0.010 (0.865)	-0.000 (0.986)	-0.002 (0.360)	-0.003 (0.469)	-0.049 (0.217)	0.003 (0.764)
Hispanic (%)	0.030 (0.608)	0.001 (0.945)	-0.004 (0.113)	-0.004 (0.261)	-0.035 (0.382)	0.005 (0.623)
Asian (%)	0.034 (0.569)	0.007 (0.700)	-0.003 (0.225)	-0.005 (0.188)	-0.056 (0.170)	-0.001 (0.942)
American Indian (%)	-0.085 (0.397)	-0.028 (0.346)	-0.013 (0.134)	0.003 (0.456)	-0.032 (0.516)	-0.001 (0.938)
White (%)	0.068 (0.234)	0.015 (0.351)	-0.001 (0.697)	-0.002 (0.499)	-0.037 (0.341)	0.005 (0.622)
Free Lunch (%)	0.054** (0.002)	0.009 (0.102)	0.001* (0.026)	0.004* (0.016)	0.021* (0.017)	-0.001 (0.819)
Reduced Lunch (%)	0.082 (0.224)	0.022 (0.210)	0.003 (0.273)	-0.001 (0.874)	0.059+ (0.080)	0.011 (0.199)
Homeless (%)	0.003 (0.945)	0.009 (0.570)	0.004** (0.007)	-0.000 (0.911)	-0.023 (0.586)	-0.001 (0.908)
Foster (%)	-0.047 (0.555)	-0.122 (0.608)	-0.008 (0.770)	0.004 (0.234)	0.066*** (0.001)	0.015+ (0.051)
Migrant (%)	0.323 (0.466)	-0.041 (0.798)	0.017+ (0.084)	0.003 (0.920)	-0.333 (0.140)	0.174 (0.161)
Armed Forces (%)	-0.045 (0.391)	0.028 (0.249)	0.009* (0.025)	0.008+ (0.080)	0.043+ (0.081)	-0.015* (0.047)
ELL (%)	-0.033 (0.163)	-0.009 (0.199)	0.001 (0.179)	0.000 (0.689)	-0.032+ (0.084)	-0.002 (0.613)
SWD (%)	0.071** (0.008)	0.022** (0.004)	0.001 (0.286)	0.002 (0.367)	0.014 (0.375)	-0.001 (0.855)
N	4716	4716	4716	4716	4716	4716

Notes: P-values in parentheses. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. Average marginal effects are reported after Poisson regression. Each observation is weighted by student enrollment. Each model includes county and grade fixed effects.

Table A3: School Sector and Climate Problems (Controlling for Suspensions)

	Assault (Physical Injury)	Assault (Serious Physical Injury)	Forcible Sex Offenses	Other Sex Offenses	Weapons Possession (Routine Security Check)	Weapons Possession (Other)
Charter	-2.554*** (0.000)	-0.361*** (0.000)	-0.375*** (0.000)	-1.408*** (0.000)	-0.725*** (0.000)	-1.068*** (0.000)
Enrollment (100s)	0.574*** (0.000)	0.051*** (0.000)	0.023*** (0.000)	0.177*** (0.000)	0.053*** (0.000)	0.180*** (0.000)
Enrollment Squared	-0.009*** (0.000)	-0.001*** (0.000)	-0.000** (0.004)	-0.003*** (0.000)	-0.000 (0.180)	-0.002*** (0.000)
Female (%)	-0.010 (0.422)	-0.002 (0.308)	-0.003** (0.003)	-0.006 (0.214)	-0.009*** (0.001)	-0.002 (0.669)
Black (%)	0.042 (0.417)	0.010 (0.256)	0.003 (0.584)	0.052** (0.003)	-0.023 (0.109)	0.036** (0.003)
Hispanic (%)	0.017 (0.749)	0.006 (0.510)	0.003 (0.661)	0.052** (0.003)	-0.033* (0.023)	0.031* (0.013)
Asian (%)	0.015 (0.766)	0.008 (0.384)	0.002 (0.759)	0.051** (0.006)	-0.040** (0.007)	0.029* (0.020)
American Indian (%)	-0.048 (0.468)	0.013 (0.223)	-0.003 (0.689)	0.041+ (0.071)	-0.024 (0.135)	0.010 (0.734)
White (%)	0.034 (0.505)	0.008 (0.363)	0.001 (0.829)	0.049** (0.003)	-0.034* (0.018)	0.027* (0.021)
Free Lunch (%)	0.029* (0.025)	0.005** (0.006)	-0.000 (0.724)	-0.006 (0.312)	0.012* (0.016)	0.019*** (0.000)
Reduced Lunch (%)	-0.061 (0.190)	0.006 (0.274)	0.000 (0.969)	0.016 (0.330)	-0.033+ (0.067)	0.026+ (0.057)
Homeless (%)	0.030 (0.141)	0.005+ (0.071)	-0.002 (0.349)	-0.004 (0.641)	0.003 (0.784)	0.007 (0.468)
Foster (%)	-0.097 (0.206)	-0.001 (0.829)	-0.000 (0.939)	-0.028 (0.352)	0.012 (0.166)	-0.020 (0.279)
Migrant (%)	-0.555 (0.138)	0.044 (0.504)	-0.045 (0.517)	0.044 (0.779)	0.068 (0.433)	-0.026 (0.806)
Armed Forces (%)	-0.040 (0.290)	-0.011* (0.022)	-0.006+ (0.082)	0.012 (0.365)	-0.121 (0.327)	0.023 (0.113)
ELL (%)	0.011 (0.382)	0.001 (0.733)	0.000 (0.836)	0.010* (0.049)	-0.001 (0.752)	-0.008 (0.168)
SWD (%)	0.067*** (0.000)	0.008*** (0.000)	0.000 (0.926)	0.015* (0.037)	-0.011+ (0.097)	0.010 (0.116)
Suspensions (%)	0.061*** (0.000)	0.002 (0.194)	0.003+ (0.095)	0.033*** (0.000)	0.005+ (0.065)	0.020*** (0.000)
N	4685	4685	4685	4685	4685	4685

Notes: P-values in parentheses. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. Average marginal effects are reported after Poisson regression. Each observation is weighted by student enrollment. Each model includes county and grade fixed effects.

Table A4: School Sector and Climate Problems (Controlling for Suspensions)

	Bullying (Excluding Cyber)	Bullying (Cyber)	Bomb Threat	False Alarm	Drugs	Alcohol
Charter	-0.055 (0.937)	0.720** (0.001)	0.047 (0.202)	-0.293* (0.031)	0.380 (0.350)	0.060 (0.592)
Enrollment (100s)	0.669*** (0.000)	0.166*** (0.000)	0.016*** (0.000)	0.030*** (0.000)	0.255*** (0.000)	0.051*** (0.000)
Enrollment Squared	-0.011*** (0.000)	-0.003*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.003*** (0.000)	-0.001*** (0.000)
Female (%)	-0.013 (0.469)	0.007 (0.265)	0.000 (0.803)	-0.000 (0.902)	-0.031** (0.003)	-0.006+ (0.073)
Black (%)	0.020 (0.740)	0.002 (0.917)	-0.002 (0.359)	-0.003 (0.462)	-0.041 (0.302)	0.004 (0.679)
Hispanic (%)	0.050 (0.392)	0.005 (0.776)	-0.004 (0.114)	-0.004 (0.261)	-0.025 (0.537)	0.007 (0.525)
Asian (%)	0.049 (0.415)	0.010 (0.579)	-0.003 (0.224)	-0.005 (0.184)	-0.049 (0.236)	0.001 (0.960)
American Indian (%)	-0.064 (0.531)	-0.023 (0.426)	-0.013 (0.134)	0.003 (0.448)	-0.021 (0.664)	0.000 (0.994)
White (%)	0.087 (0.130)	0.019 (0.255)	-0.001 (0.693)	-0.002 (0.504)	-0.028 (0.480)	0.006 (0.529)
Free Lunch (%)	0.038* (0.030)	0.007 (0.227)	0.001* (0.029)	0.004* (0.018)	0.017+ (0.063)	-0.001 (0.563)
Reduced Lunch (%)	0.083 (0.211)	0.021 (0.239)	0.003 (0.273)	-0.001 (0.880)	0.056+ (0.093)	0.011 (0.209)
Homeless (%)	0.006 (0.895)	0.009 (0.565)	0.004** (0.006)	-0.000 (0.919)	-0.026 (0.538)	-0.001 (0.882)
Foster (%)	-0.270* (0.027)	-0.147 (0.517)	-0.009 (0.768)	0.004 (0.346)	0.038 (0.285)	0.011 (0.229)
Migrant (%)	0.409 (0.359)	-0.027 (0.866)	0.017+ (0.084)	0.003 (0.914)	-0.315 (0.157)	0.178 (0.156)
Armed Forces (%)	-0.049 (0.355)	0.028 (0.251)	0.009* (0.025)	0.008+ (0.081)	0.044+ (0.071)	-0.015* (0.047)
ELL (%)	-0.030 (0.221)	-0.009 (0.211)	0.001 (0.176)	0.000 (0.693)	-0.029 (0.101)	-0.002 (0.683)
SWD (%)	0.062* (0.018)	0.021** (0.008)	0.001 (0.297)	0.002 (0.415)	0.010 (0.548)	-0.001 (0.811)
Suspensions (%)	0.137*** (0.000)	0.021*** (0.000)	-0.000 (0.937)	0.001 (0.475)	0.031* (0.042)	0.005+ (0.090)
N	4685	4685	4685	4685	4685	4685

Notes: P-values in parentheses. + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Average marginal effects are reported after Poisson regression. Each observation is weighted by student enrollment. Each model includes county and grade fixed effects.

Table A5: School Sector and Climate Problems

	Assault (Physical Injury)	Assault (Serious Physical Injury)	Forcible Sex Offenses	Other Sex Offenses	Weapons Possession (Routine Security Check)	Weapons Possession (Other)
Charter	-0.003** (0.001)	-0.001*** (0.000)	-0.000*** (0.000)	-0.002*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)
Enrollment (100s)	-0.000 (0.422)	-0.000 (0.463)	-0.000 (0.934)	0.000* (0.033)	-0.000*** (0.000)	-0.000 (0.728)
Enrollment Squared	0.000 (0.828)	-0.000 (0.402)	-0.000 (0.619)	-0.000** (0.008)	0.000*** (0.000)	0.000 (0.862)
Female (%)	-0.000 (0.180)	-0.000* (0.032)	-0.000* (0.011)	-0.000 (0.111)	-0.000** (0.002)	-0.000 (0.483)
Black (%)	0.000 (0.419)	0.000* (0.014)	0.000 (0.926)	0.000*** (0.000)	-0.000 (0.399)	0.000** (0.003)
Hispanic (%)	0.000 (0.990)	0.000 (0.380)	-0.000 (0.413)	0.000** (0.002)	-0.000*** (0.000)	0.000 (0.246)
Asian (%)	0.000 (0.652)	0.000 (0.187)	-0.000 (0.375)	0.000*** (0.001)	-0.000*** (0.000)	0.000* (0.046)
American Indian (%)	-0.000 (0.511)	0.000 (0.192)	-0.000 (0.164)	0.000+ (0.090)	-0.000+ (0.081)	-0.000 (0.584)
White (%)	0.000 (0.578)	0.000 (0.135)	-0.000 (0.554)	0.000*** (0.000)	-0.000*** (0.000)	0.000+ (0.097)
Free Lunch (%)	0.000* (0.010)	0.000* (0.018)	0.000 (0.533)	-0.000 (0.978)	0.000*** (0.000)	0.000*** (0.000)
Reduced Lunch (%)	-0.000* (0.045)	-0.000 (0.840)	0.000 (0.824)	0.000 (0.216)	-0.000*** (0.000)	-0.000 (0.195)
Homeless (%)	0.000*** (0.000)	0.000** (0.009)	0.000 (0.774)	0.000* (0.031)	-0.000*** (0.000)	0.000+ (0.061)
Foster (%)	-0.000+ (0.079)	-0.000 (0.566)	-0.000 (0.659)	0.000 (0.346)	0.000 (0.125)	-0.000 (0.704)
Migrant (%)	-0.000 (0.147)	0.000 (0.718)	-0.000 (0.935)	0.000 (0.661)	0.000 (0.257)	0.000 (0.822)
Armed Forces (%)	-0.000 (0.538)	-0.000 (0.387)	-0.000 (0.466)	0.000 (0.833)	0.000+ (0.052)	0.000* (0.032)
ELL (%)	-0.000 (0.995)	0.000 (0.804)	0.000 (0.654)	0.000+ (0.078)	0.000** (0.006)	-0.000** (0.006)
SWD (%)	0.000*** (0.000)	0.000* (0.029)	0.000 (0.448)	0.000*** (0.000)	0.000 (0.341)	0.000*** (0.000)
R-Squared	0.1966	0.1172	0.1221	0.1893	0.2204	0.2209
N	4716	4716	4716	4716	4716	4716

Notes: P-values in parentheses. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. Average marginal effects are reported after ordinary least squares regression. Each observation is weighted by student enrollment. Each model includes county and grade fixed effects. Each dependent variable divides the count of incidents by student enrollment.

Table A6: School Sector and Climate Problems

	Bullying (Excluding Cyber)	Bullying (Cyber)	Bomb Threat	False Alarm	Drugs	Alcohol
Charter	0.000 (0.803)	0.001** (0.002)	0.000 (0.367)	-0.000** (0.009)	0.001* (0.019)	0.000 (0.244)
Enrollment (100s)	-0.000*** (0.000)	-0.000*** (0.000)	0.000 (0.526)	-0.000 (0.158)	-0.000 (0.772)	0.000 (0.663)
Enrollment Squared	0.000** (0.002)	0.000* (0.032)	-0.000 (0.103)	0.000 (0.241)	-0.000 (0.266)	-0.000 (0.290)
Female (%)	-0.000 (0.531)	0.000 (0.243)	-0.000 (0.346)	-0.000 (0.624)	-0.000 (0.234)	-0.000 (0.139)
Black (%)	0.000 (0.184)	0.000 (0.108)	-0.000 (0.591)	0.000 (0.898)	0.000+ (0.094)	0.000*** (0.000)
Hispanic (%)	0.000 (0.142)	0.000* (0.045)	-0.000 (0.344)	-0.000 (0.553)	0.000* (0.040)	0.000*** (0.000)
Asian (%)	0.000+ (0.055)	0.000* (0.020)	-0.000 (0.301)	0.000 (0.988)	0.000* (0.047)	0.000** (0.001)
American Indian (%)	0.000 (0.752)	-0.000 (0.787)	-0.000 (0.224)	0.000 (0.265)	0.000+ (0.055)	0.000** (0.007)
White (%)	0.000* (0.014)	0.000** (0.002)	0.000 (0.958)	-0.000 (0.801)	0.000+ (0.091)	0.000*** (0.000)
Free Lunch (%)	0.000* (0.044)	0.000 (0.282)	0.000+ (0.095)	0.000* (0.037)	0.000 (0.927)	-0.000 (0.185)
Reduced Lunch (%)	0.000+ (0.055)	0.000 (0.181)	0.000* (0.046)	-0.000 (0.590)	0.000 (0.290)	0.000 (0.268)
Homeless (%)	0.000 (0.320)	0.000 (0.497)	0.000 (0.361)	0.000 (0.273)	0.000 (0.708)	0.000 (0.341)
Foster (%)	0.000 (0.519)	-0.000 (0.975)	-0.000 (0.766)	0.000 (0.420)	0.002* (0.019)	0.000 (0.566)
Migrant (%)	0.001 (0.528)	-0.000 (0.900)	0.000 (0.252)	0.000 (0.710)	-0.000+ (0.091)	0.000 (0.533)
Armed Forces (%)	-0.000 (0.267)	0.000 (0.327)	0.000 (0.441)	0.000 (0.128)	0.000+ (0.098)	-0.000 (0.256)
ELL (%)	-0.000 (0.289)	-0.000 (0.167)	0.000 (0.579)	-0.000 (0.785)	-0.000 (0.224)	0.000 (0.200)
SWD (%)	0.000** (0.005)	0.000* (0.021)	-0.000 (0.845)	0.000** (0.009)	0.000* (0.017)	0.000+ (0.094)
R-Squared	0.1312	0.1321	0.0379	0.0435	0.3212	0.1316
N	4716	4716	4716	4716	4716	4716

Notes: P-values in parentheses. + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Average marginal effects are reported after ordinary least squares regression. Each observation is weighted by student enrollment. Each model includes county and grade fixed effects. Each dependent variable divides the count of incidents by student enrollment.

Table A7: School Sector and Climate Problems (Controlling for Suspensions)

	Assault (Physical Injury)	Assault (Serious Physical Injury)	Forcible Sex Offenses	Other Sex Offenses	Weapons Possession (Routine Security Check)	Weapons Possession (Other)
Charter	-0.004*** (0.000)	-0.001*** (0.000)	-0.000*** (0.000)	-0.002*** (0.000)	-0.001*** (0.000)	-0.002*** (0.000)
Enrollment (100s)	-0.000 (0.318)	-0.000 (0.494)	-0.000 (0.999)	0.000+ (0.058)	-0.000*** (0.000)	-0.000 (0.375)
Enrollment Squared	0.000 (0.632)	-0.000 (0.372)	-0.000 (0.554)	-0.000* (0.012)	0.000*** (0.000)	0.000 (0.473)
Female (%)	-0.000 (0.258)	-0.000* (0.035)	-0.000** (0.010)	-0.000 (0.159)	-0.000** (0.003)	-0.000 (0.718)
Black (%)	0.000 (0.486)	0.000* (0.015)	0.000 (0.903)	0.000*** (0.000)	-0.000 (0.376)	0.000** (0.005)
Hispanic (%)	0.000 (0.955)	0.000 (0.388)	-0.000 (0.384)	0.000*** (0.001)	-0.000*** (0.001)	0.000 (0.156)
Asian (%)	0.000 (0.701)	0.000 (0.199)	-0.000 (0.371)	0.000*** (0.001)	-0.000*** (0.000)	0.000* (0.045)
American Indian (%)	-0.000 (0.547)	0.000 (0.193)	-0.000 (0.151)	0.000+ (0.064)	-0.000+ (0.098)	-0.000 (0.719)
White (%)	0.000 (0.554)	0.000 (0.140)	-0.000 (0.523)	0.000*** (0.000)	-0.000*** (0.000)	0.000+ (0.052)
Free Lunch (%)	0.000+ (0.066)	0.000* (0.020)	0.000 (0.392)	-0.000 (0.490)	0.000*** (0.001)	0.000*** (0.000)
Reduced Lunch (%)	-0.000+ (0.057)	-0.000 (0.807)	0.000 (0.891)	0.000 (0.141)	-0.000*** (0.000)	-0.000 (0.412)
Homeless (%)	0.000*** (0.000)	0.000* (0.012)	0.000 (0.807)	0.000* (0.023)	-0.000*** (0.000)	0.000* (0.029)
Foster (%)	-0.000* (0.021)	-0.000 (0.556)	0.000 (0.676)	-0.000 (0.727)	0.000 (0.183)	-0.000 (0.104)
Migrant (%)	-0.000 (0.178)	0.000 (0.701)	-0.000 (0.884)	0.000 (0.621)	0.000 (0.219)	0.000 (0.688)
Armed Forces (%)	-0.000 (0.514)	-0.000 (0.400)	-0.000 (0.490)	0.000 (0.886)	0.000+ (0.059)	0.000* (0.041)
ELL (%)	0.000 (0.966)	0.000 (0.796)	0.000 (0.653)	0.000+ (0.073)	0.000** (0.006)	-0.000** (0.005)
SWD (%)	0.000*** (0.000)	0.000* (0.030)	0.000 (0.353)	0.000** (0.002)	0.000 (0.429)	0.000*** (0.001)
Suspensions (%)	0.000*** (0.000)	0.000 (0.874)	-0.000* (0.022)	0.000*** (0.000)	0.000+ (0.093)	0.000*** (0.000)
R-Squared	0.2061	0.1182	0.1225	0.1945	0.2217	0.2376
N	4685	4685	4685	4685	4685	4685

Notes: P-values in parentheses. + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Average marginal effects are reported after ordinary least squares regression. Each observation is weighted by student enrollment. Each model includes county and grade fixed effects. Each dependent variable divides the count of incidents by student enrollment.

Table A8: School Sector and Climate Problems (Controlling for Suspensions)

	Bullying (Excluding Cyber)	Bullying (Cyber)	Bomb Threat	False Alarm	Drugs	Alcohol
Charter	-0.002* (0.036)	0.001+ (0.055)	0.000 (0.555)	-0.000** (0.009)	-0.000 (0.868)	-0.000 (0.779)
Enrollment (100s)	-0.000*** (0.000)	-0.000*** (0.000)	0.000 (0.613)	-0.000 (0.150)	-0.000 (0.384)	0.000 (0.849)
Enrollment Squared	0.000*** (0.000)	0.000* (0.010)	-0.000 (0.144)	0.000 (0.219)	-0.000 (0.499)	-0.000 (0.419)
Female (%)	-0.000 (0.849)	0.000 (0.187)	-0.000 (0.369)	-0.000 (0.622)	-0.000 (0.369)	-0.000 (0.173)
Black (%)	0.000 (0.200)	0.000 (0.129)	-0.000 (0.563)	0.000 (0.918)	0.000 (0.125)	0.000*** (0.000)
Hispanic (%)	0.000+ (0.080)	0.000* (0.031)	-0.000 (0.366)	-0.000 (0.547)	0.000* (0.015)	0.000*** (0.000)
Asian (%)	0.000* (0.044)	0.000* (0.020)	-0.000 (0.300)	-0.000 (0.989)	0.000* (0.038)	0.000** (0.001)
American Indian (%)	0.000 (0.568)	-0.000 (0.889)	-0.000 (0.239)	0.000 (0.255)	0.000* (0.028)	0.000** (0.004)
White (%)	0.000** (0.006)	0.000** (0.001)	0.000 (0.925)	-0.000 (0.819)	0.000* (0.039)	0.000*** (0.000)
Free Lunch (%)	0.000 (0.376)	0.000 (0.801)	0.000 (0.161)	0.000* (0.037)	-0.000 (0.338)	-0.000+ (0.076)
Reduced Lunch (%)	0.000* (0.024)	0.000 (0.139)	0.000* (0.039)	-0.000 (0.619)	0.000 (0.139)	0.000 (0.215)
Homeless (%)	0.000 (0.180)	0.000 (0.427)	0.000 (0.333)	0.000 (0.274)	0.000 (0.401)	0.000 (0.263)
Foster (%)	-0.000 (0.891)	-0.000 (0.621)	-0.000 (0.390)	0.000 (0.430)	0.002* (0.032)	0.000 (0.778)
Migrant (%)	0.001 (0.473)	-0.000 (0.941)	0.000 (0.246)	0.000 (0.699)	-0.000 (0.137)	0.000 (0.508)
Armed Forces (%)	-0.000 (0.244)	0.000 (0.339)	0.000 (0.475)	0.000 (0.127)	0.000 (0.147)	-0.000 (0.248)
ELL (%)	-0.000 (0.326)	-0.000 (0.192)	0.000 (0.573)	-0.000 (0.796)	-0.000 (0.211)	0.000 (0.199)
SWD (%)	0.000* (0.022)	0.000+ (0.074)	-0.000 (0.689)	0.000** (0.009)	0.000* (0.037)	0.000 (0.140)
Suspensions (%)	0.000*** (0.000)	0.000** (0.001)	0.000 (0.232)	0.000 (0.560)	0.000** (0.004)	0.000* (0.017)
R-Squared	0.1442	0.1381	0.0387	0.0438	0.3381	0.1355
N	4685	4685	4685	4685	4685	4685

Notes: P-values in parentheses. + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Average marginal effects are reported after ordinary least squares regression. Each observation is weighted by student enrollment. Each model includes county and grade fixed effects. Each dependent variable divides the count of incidents by student enrollment.