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Are Charter Schools Safer than District-Run Schools? Evidence from Pennsylvania

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

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Abstract

Access to public charter schools could theoretically reduce school climate problems by

increasing competitive pressures, improving matches between schools and students, enhancing

discipline policies, and allowing students to relocate to peer groups and cultures that discourage

risky behaviors. Using publicly available data from the Pennsylvania Department of Education, I

examine differences in reports of 58 school climate problems between public charter and district-

run public school sectors in the 2018-19 school year. After controlling for several differences in

students between sectors, I find that public charter schools generally report fewer school climate

problems than district-run public schools in Pennsylvania. These charter school sector

advantages are generally more pronounced for cyber charter schools than brick-and-mortar

charter schools, and for charter schools located in Philadelphia County than charter schools

located in the rest of the state.

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

JEL Codes: I28; I20

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Introduction

Pennsylvania's first charter school law was enacted in 1997 and public charter schools served over 140,000 students in the state in the 2018-19 school year. Pennsylvania's public charter schools are prohibited from charging tuition, having religious affiliations, being for-profit entities, and using selective admissions processes. Public charter schools additionally must comply with federal safety, special education, and civil rights laws.

The latest evaluation on the topic found that access to brick-and-mortar public charter schools in Pennsylvania was associated with a 4% of a standard deviation increase in reading test score growth and no difference in math test score growth (CREDO, 2019). However, access to cyber charter schools was associated with about a fifth of a standard deviation reduction in both math and reading test score growth. The overall results also differed by school year, school location, student background, and grade levels served. For example, public charter schools were generally less effective at improving test scores for students in suburban and rural areas than for students in urban areas.

CREDO (2019)'s school-level analysis found that 45% of public charter schools performed better at improving reading test scores and 33% of public charter schools performed better at improving math test scores than the district-run public school alternatives. However, CREDO (2019) also found that 23% of public charter schools performed worse at improving

¹ Article XVII-A. Charter Schools. 1949 Act 14. Pennsylvania General Assembly. Retrieved from https://www.legis.state.pa.us/cfdocs/legis/LI/uconsCheck.cfm?txtType=HTM&yr=1949&sessInd=0&smthLwInd=0&act=014&chpt=17A

² What is a Charter School? Pennsylvania Department of Education. Retrieved from https://www.education.pa.gov/K-12/Charter%20Schools/Pages/What-is-A-Charter-School.aspx

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

reading test scores and 32% of public charter schools performed worse at improving math test scores than the district-run public school alternatives.

Why might some families choose schools that are less effective at improving standardized test scores than their children's residentially assigned schools? Some researchers and commentators theorize that certain families might not have access to enough relevant information necessary to improve their children's educational outcomes (Cornwall, 2017; Harris, 2017; McEachin, Stecher, & Evans, 2015), or that families might experience choice overload (Scheibehenne, Greifeneder, & Todd, 2010). Other education scholars similarly theorize that choice may not improve outcomes if public charter schools actively present families with the positive qualities of their schools while minimizing information about their least attractive characteristics (Lubienski, 2007).

However, it is also possible that families choose schools based on multiple dimensions of quality (Abdulkadiroglu et al., 2017). Surveys generally indicate that families value aspects of schools that are not necessarily captured by standardized test scores such as moral education, individual attention, location, peer groups, and safety (Altenhofen, Berends, & White, 2016; Catt & Rhinesmith, 2017; Holmes Erickson, 2017; Prieto et al., 2019). For example, Bedrick and Burke (2018) surveyed over 13,000 families using a private school choice program in Florida and found that 36% placed a "safe environment" in their top three reasons for choosing a particular school. However, only 4% of the families placed "standardized test scores" in their top three reasons for choosing their child's private school. Kelly and Scafidi (2013) similarly found that families in Georgia listed "better student discipline" and "improved student safety" as the top two reasons for choosing private schools for their children. However, only 4% of families

listed "higher standardized test scores" in their top three reasons for choosing private schools for their children (Kelly & Scafidi, 2013).

In theory, residential assignment to district-run public schools creates high transaction costs associated with choosing educational alternatives (Hanushek et al., 2007). In general, if a family is not satisfied with their residentially assigned public school, they only have a few costly or ineffective options. The dissatisfied family could move to a residence that is assigned to a better district-run public school, pay for a private school out of pocket while still paying for the district-run public school through property taxes, incur the costs associated with home education while still paying for the district-run public school through property taxes, or pressure the leaders of their district-run public school to provide their children with better educational services. The high transaction costs associated with opting out of residentially assigned public schools theoretically creates a high degree of monopoly power in the education system (Friedman, 1955). Access to public charter schools could improve school quality by giving families additional options and reducing monopoly power held by residentially assigned public schools (Chubb & Moe, 1988; Hoxby, 2007). These additional educational options could produce competitive pressures for public schools to improve climate outcomes if families choose schools based on safety (Cordes, 2018; Egalite, 2013; Jabbar et al., 2019).

Access to public charter schools could also reduce school climate problems by improving matches between schools and students (DeAngelis & Holmes Erickson, 2018). Public charter schools may experience fewer school climate problems than district-run public schools if the improved match increases student interest and engagement. Diliberti et al. (2019) found that 19% of schools in the U.S. reported that government policies on disciplining students limited their abilities to reduce or prevent crimes. Additional autonomy with school discipline policies could

also allow public charter schools to more effectively reduce climate problems than district-run public schools (Shakeel & DeAngelis, 2017). Access to public charter schools might also improve safety by allowing students to relocate to peer groups and school cultures that discourage risky behaviors.

However, it is also possible that access to public charter schools could increase school climate problems if safety does not sufficiently influence families' selections, or if advertising limits families' abilities to make informed decisions (Lubienski, 2007). Public charter schools could also theoretically experience more school climate problems than district-run public schools since public charter schools generally receive less funding per student than district-run public schools in Pennsylvania (Batdorff et al., 2010; 2014).

Public charter school climate advantages, if they exist, might be more pronounced in locations with more competitive pressures. For example, public charter school climate advantages might be larger in Philadelphia County than the rest of the state because the majority of public charter schools are located in Philadelphia County. However, it is also possible for public charter school advantages to be less pronounced in locations with more options because additional competitive pressures could lead to larger improvements in nearby district-run public schools (Cordes, 2018; Egalite, 2013; Jabbar et al., 2019). We might expect public charter school climate advantages, if they exist, to be more pronounced in secondary schools than in primary schools because school climate problems are generally more likely to occur in secondary schools in Pennsylvania and other states.⁴ Cyber charter schools are expected to have the largest school climate advantages because most school climate problems are much more likely to occur in-

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⁴ Indicator 6: Violent and Other Criminal Incidents at Public Schools, and Those Reported to the Police. Indicators of School Crime and Safety. National Center for Education Statistics. Retrieved from https://nces.ed.gov/programs/crimeindicators/ind_06.asp

person than virtually. For example, it is not likely that a physical fight will occur at a cyber school unless the incident happens between siblings or when the school holds in-person events.

This study empirically evaluates the four following research hypotheses:

Hypothesis 1: Brick-and-mortar public charter schools report fewer school climate problems than district-run public schools.

Hypothesis 2: Cyber charter schools report fewer school climate problems than district-run public schools.

Hypothesis 3: Public charter school climate advantages, if they exist, are more pronounced in Philadelphia County than the rest of the state.

Hypothesis 4: Public charter school climate advantages, if they exist, are more pronounced in schools serving students in grades 9 through 12 than in schools serving other grades.

Using publicly available data from the Pennsylvania Department of Education, I examine differences in reports of 58 school climate problems between public charter and district-run public school sectors in the 2018-19 school year. The next section reviews the literature on the relationship between access to public charter schools and private schools and reports of school safety. The data, methods, and results are then presented. Finally, the study limitations and policy implications are discussed.

Literature Review

Two reviews of the evidence find that access to private school choice programs or public charter schools is generally associated with improvements in safety as reported by students, parents, and school leaders. DeAngelis and Wolf (2019) reviewed the rigorous evidence and found that each of the six studies on the topic indicated that access to private schools in the United States increased perceptions of safety as reported by students or parents (DeAngelis & Lueken, 2020; Howell & Peterson, 2006; Shakeel & DeAngelis, 2018; Webber et al., 2019; Witte et al., 2008; Wolf et al., 2010). Three of the six studies used random assignment methodology by comparing students who won random lotteries to use voucher programs to attend private schools to the students who lost (Howell & Peterson, 2006; Webber et al., 2019; Wolf et al., 2010). For example, Webber et al. (2019) found that winning a lottery and using a voucher to attend a private school in the District of Columbia increased the likelihood that students reported being in a "very safe" school by 34%. Wolf et al. (2010) similarly found that parents of students who won the voucher program lottery and attended private schools in D.C. reported a 17% of a standard deviation higher level of school safety than parents of students who lost the lottery.

Building on the DeAngelis and Wolf (2019) review, Schwalbach and DeAngelis (2020) found that each of the 10 rigorous studies on the topic indicated that access to private schools was associated with higher levels of safety as reported by students, parents, or school leaders (DeAngelis & Lueken, 2020; Fan, Williams, & Corkin, 2011; Farina, 2019; Howell & Peterson, 2006; Lleras, 2008; Shakeel & DeAngelis, 2018; Waasdorp et al., 2018; Webber et al., 2019; Witte et al., 2008; Wolf et al., 2010). Additionally, Schwalbach and DeAngelis (2020) found that six out of seven studies on the topic indicated that access to public charter schools in the United States was associated with higher levels of safety as reported by students, parents, or school

leaders (Barrett, 2003; DeAngelis, 2020; DeAngelis & Lueken, 2020; Gleason et al., 2010; Hamlin, 2017; Shakeel & DeAngelis, 2018; Tuttle et al., 2015).

Although studies examining differences in perceptions about school safety as reported by students and parents provide valuable information, these evaluations potentially suffer from choice-supportive bias (Lind et al., 2017). Additionally, studies examining differences in reported perceptions of safety do not reveal differences in actual school climate problems between sectors. Three of the seven studies reviewed by Schwalbach and DeAngelis (2020) evaluated differences in school safety between sectors as reported by school leaders (DeAngelis, 2020; DeAngelis & Lueken, 2020; Shakeel & DeAngelis, 2018). However, two of these three studies examined differences in school leaders' perceptions of school safety rather than counts of actual school climate problems (DeAngelis & Lueken, 2020; Shakeel & DeAngelis, 2018). Both of these studies leveraged optional surveys that asked school leaders how often various school climate problems occurred at their schools.

Only one of the seven studies examined differences in actual school climate problems between sectors using state-mandated data reported by school leaders (DeAngelis, 2020).

DeAngelis (2020) used data from the New York State Education Department and found that public charter schools generally reported fewer school climate problems than district-run public schools in the state in the 2017-18 school year.

The current study adds to the literature by examining differences in actual school climate problems between sectors as reported by school leaders in Pennsylvania. The current study also adds to the literature by improving on DeAngelis (2020) in several ways. First, because the Pennsylvania Department of Education lists all of the cyber charter schools online, the current study estimates school climate differences for brick-and-mortar charter schools and cyber charter

schools separately. Second, the current study examines between-sector differences in over four times as many (58 versus 13) school climate outcomes as DeAngelis (2020). Third, the current study uses a two-part model as a robustness check since the school climate outcomes are mixed discrete-continuous in nature.

Data

The data used in this study are all publicly available at the Pennsylvania Department of Education website. Although 61 school climate problems are reported by the Pennsylvania Department of Education, three of these problems are dropped from the analysis because they never occurred in the 2018-19 school year. The 58 school climate outcomes analyzed in this report are available for district-run public schools and public charter schools in the 2018-19 school year at the Pennsylvania Department of Education's School Safety Historic Comparison Report.⁵

Data for each public school's total enrollment and enrollment by gender, and each public school district's enrollment by race, are available online at the Pennsylvania Department of Education's Public School Enrollment Reports.⁶ Data for each public school's percent of students identified as low-income are available online at the Pennsylvania Department of Education's Public Schools Percent of Low-Income Reports.⁷ Data for each public school's number of students identified as English learners are available online at the Pennsylvania

⁵ Pennsylvania Safe Schools Online Application. Pennsylvania Department of Education. Retrieved from https://www.safeschools.pa.gov/Main.aspx?App=6a935f44-7cbf-45e1-850b-e29b2f1ff17f&Menu=dbd39a1f-3319-4a75-8f69-d1166dba5d70&res=

⁶ Public School Enrollment Reports. Pennsylvania Department of Education. Retrieved from https://www.education.pa.gov/DataAndReporting/Enrollment/Pages/PublicSchEnrReports.aspx

⁷ Public Schools Percent of Low-Income Reports. Pennsylvania Department of Education. Retrieved from https://www.education.pa.gov/DataAndReporting/LoanCanLowIncome/Pages/PublicSchools.aspx

Department of Education's English Learners Reports.⁸ Data for each public school district's number of students identified as special education are available online at the Pennsylvania Department of Education's Special Education Data Reporting website.⁹

School safety data are available for all 2,993 public schools in Pennsylvania in the 2018-19 school year. Comprehensive career and technical education centers (10 schools), occupational career and technical education centers (68 schools), intermediate units (27 schools), and state juvenile correctional institutions (six schools) are excluded from each analysis. In other words, 111 of the complete set of 2,993 public schools (3.7%) are excluded from each analysis to compare public charter schools to regular district-run public schools. School safety data are available for 2,702 regular district-run public schools and 180 public charter schools, or a total of 2,882 schools, in the 2018-19 school year.

Fifteen of the 180 public charter schools are cyber charter schools. ¹⁰ Although most public school districts in the state report having virtual education programs, Pennsylvania does not consider these programs as separate district-run public schools in their reporting. ¹¹ Because the Pennsylvania Department of Education does not report these virtual programs as separate district-run public schools, the school climate results for students enrolled in these virtual programs must be included with brick-and-mortar district-run schools. ¹² In other words, all

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⁸ English Learners. Pennsylvania Department of Education. Retrieved from https://www.education.pa.gov/DataAndReporting/EnglishLearners/Pages/default.aspx

⁹ Special Education and Total Enrollment by LEA: 2008-2018. Special Education Data Reporting. Pennsylvania Department of Education. Retrieved from https://penndata.hbg.psu.edu/Additional-Reports

¹⁰ 2019-20 List of Charter and Cyber Charter Schools. Charter Schools. Pennsylvania Department of Education. Retrieved from https://www.education.pa.gov/Documents/K-

^{12/}Charter%20Schools/Cyber%20and%20Charter%20Listing.xlsx

¹¹ Cost Analysis: Cyber Charter Schools and Public School District Cyber Learning Programs. Pennsylvania Association of School Administrators. Retrieved from https://www.pasa-net.org//Files/SurveysAndReports/2018/CyberCharterRPT06-19-18.pdf

¹² Public Schools Extract. Educational Names and Addresses (EdNA). Pennsylvania Department of Education. Retrieved from http://www.edna.pa.gov/Screens/Extracts/wfExtractPublicSchools.aspx

results from subsequent analyses compare brick-and-mortar public charter schools and cyber charter schools to district-run public schools that serve a mix of in-person and virtual students. If school climate problems are less likely to occur virtually than in-person, this difference in reporting between sectors would bias school climate estimates in favor of district-run public schools in subsequent analyses.

Complete data for all independent variables are available for 2,875 (99.8%) of the 2,882 regular district-run public schools and public charter schools in the state. Complete control variables are missing for three public charter schools (1.7% of public charter schools) and four regular district-run public schools (0.1% of regular district-run public schools). Descriptive statistics for each independent variable can be found in Table 1, and descriptive statistics for each dependent variable can be found in Table 2. Statistically significant differences in the independent variables between school sectors can be found in Table 3 and statistically significant differences in the dependent variables between sectors can be found in Table 4.

Statistically significant differences in observable characteristics indicate that regular public charter schools served more disadvantaged students than district-run public schools in Pennsylvania in the 2018-19 school year (Table 3). On average, brick-and-mortar (regular) public charter schools serve around a 24-percentage point (54%) higher proportion of students identified as low-income than district-run public schools in the state. Regular public charter schools serve around a one-percentage point (6%) higher proportion of students identified as having special needs, and less than a third of the proportion of students identified as white, than district-run public schools in the state. The relative disadvantage of regular public charter schools in Pennsylvania might be partially explained by their location: 62% of the students served by

regular public charter schools in the state are located in Philadelphia County, whereas only 8% of the students served by district-run public schools are located in Philadelphia County.

Statistically significant differences suggest that cyber charter schools serve around a six-percentage point (33%) higher proportion of students identified as having special needs than district-run public schools in the state. However, cyber charter schools serve around a third of the proportion of English language learners as district-run public schools in Pennsylvania.

Without accounting for any of these observable differences in schools, Pennsylvania's regular public charter school and district-run public school sectors differ on 28 of the 58 school climate outcomes. These descriptive overall results generally suggest a school climate advantage for regular public charter schools and cyber charter schools. Twenty-five of these 28 statistically significant differences between sectors suggest that regular public charter schools report fewer school climate problems than district-run public schools, whereas the remaining three differences suggest the opposite. Each of the 54 statistically significant differences suggests that cyber charter schools report fewer school climate problems than district-run public schools. Subsequent analyses account for several observable differences in student populations between school sectors.¹³

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¹³ Results for "failure to disperse" from each analysis should be considered with caution. The counts for "failure to disperse" and "bullying" are identical for all schools in the 2018-19 school year. The statewide count of "failure to disperse" incidents reported by the Pennsylvania Department of Education was 105 in the 2018-19 school year, which is only about 6% of the counts for individual schools. The statewide count of "bullying" reported by the Pennsylvania Department of Education for was 2,221 in the 2018-19 school year, which is much closer to the sum of the counts for individual schools. It is possible that the Pennsylvania Department of Education unintentionally used the actual "bullying" counts for the counts of "failure to disperse" incidents. The Pennsylvania Department of Education has not responded to inquiry about this potential data issue at the time of writing this report.

Table 1: Descriptive Statistics (Independent Variables)

Variables	Mean	Standard	Minimum	Maximum
		Deviation		
Low Income (%)	45.76	23.38	0.00	100.00
English Language Learners (%)	3.98	6.71	0.00	59.04
Students with Disabilities (%)	17.27	3.80	4.05	90.91
White (%)	64.75	29.91	0.00	99.48
Female (%)	48.79	3.25	14.29	99.88
District School	0.92	0.28	0.00	1.00
Regular Charter	0.06	0.24	0.00	1.00
Cyber Charter	0.02	0.15	0.00	1.00
K-5 School	0.15	0.35	0.00	1.00
K-6 School	0.08	0.27	0.00	1.00
6-8 School	0.09	0.29	0.00	1.00
9-12 School	0.23	0.42	0.00	1.00
K-12 School	0.04	0.19	0.00	1.00
Philadelphia County	0.11	0.32	0.00	1.00
Allegheny County	0.09	0.28	0.00	1.00
Montgomery County	0.07	0.25	0.00	1.00

Notes: Sample size is 2,875 schools representing 1,701,550 students. Each variable is from the 2018-19 school year. Each variable is at the school level, except Students with Disabilities percentage and White percentage, which are both at the district level. Each variable is weighted by total student enrollment.

Table 2: Descriptive Statistics (Dependent Variables)

Variables	Mean	Standard	Minimum	Maximum
		Deviation	0.00	164.51
Misconduct – Academic or Code of Conduct	6.11	14.72	0.00	164.51
Misconduct – All Other	3.86	7.48	0.00	534.57
Offender Misconduct – Academic or Code of Conduct	2.50	5.12	0.00	43.81
Offender Misconduct – All Other	3.50	4.76	0.00	95.06
Local Law Enforcement Involved	0.88	1.44	0.00	40.74
Total Arrests	0.21	0.62	0.00	24.69
Assigned to Alternative	0.12	0.46	0.00	11.11
Student Aggravated	0.04	0.19	0.00	9.88
Student Simple	0.23	0.75	0.00	19.59
Staff Aggravated	0.02	0.16	0.00	11.11
Staff Simple	0.15	0.65	0.00	22.22
Racial / Ethnic Intimidation	0.02	0.09	0.00	1.83
Other Harassment / Intimidation	0.21	0.68	0.00	16.67
Fighting	0.62	1.43	0.00	46.91
Minor Altercation	0.38	2.89	0.00	276.54
Rape	0.00	0.00	0.00	0.11
Involuntary Sexual Deviate Intercourse	0.00	0.02	0.00	0.42
Statutory Sexual Assault	0.00	0.00	0.00	0.06
Sexual Assault	0.00	0.03	0.00	1.23
Aggravated Indecent Assault	0.00	0.02	0.00	2.47
Indecent Assault	0.01	0.04	0.00	3.70
Indecent Exposure	0.01	0.07	0.00	6.17
Open Lewdness	0.01	0.06	0.00	3.70
Obscene / Other Sexual Materials and Performances	0.04	0.21	0.00	5.32
Sexual Harassment	0.04	0.15	0.00	4.94
Stalking	0.00	0.00	0.00	0.18
Kidnapping	0.00	0.01	0.00	0.35
Unlawful Restraint	0.00	0.01	0.00	0.39
Threatening a School Official / Student	0.25	0.78	0.00	46.15
Reckless Endangerment	0.11	0.71	0.00	16.51
Robbery	0.00	0.04	0.00	1.23
Theft	0.11	0.23	0.00	3.65
Bullying	0.12	0.43	0.00	8.37
Suicide Attempt	0.00	0.04	0.00	1.08

Notes: Sample size is 2,875 schools representing 1,701,550 students. Each variable is from the 2018-19 school year. Each variable is at the school level. Each dependent variable is divided by student enrollment (in 100s). Each variable is weighted by total student enrollment.

Table 2 (Continued): Descriptive Statistics (Dependent Variables)

Variables	Mean	Standard Deviation	Minimum	Maximum
Rioting	0.01	0.13	0.00	4.24
Bomb Threats	0.01	0.05	0.00	2.47
Terroristic Threats (Excluding Bomb Threats)	0.05	0.15	0.00	7.41
Failure of Disorderly Persons to Disperse	0.12	0.43	0.00	8.37
Disorderly Conduct	0.31	1.49	0.00	33.82
Handgun	0.00	0.01	0.00	0.39
Rifle or Shotgun	0.00	0.01	0.00	0.28
Other Firearm	0.00	0.02	0.00	0.87
Possession of a Knife	0.06	0.13	0.00	3.70
Cutting Instrument	0.02	0.08	0.00	1.39
Explosive	0.00	0.04	0.00	1.39
Pellet Gun	0.00	0.03	0.00	1.23
Possession of Other Weapon	0.03	0.10	0.00	1.52
Burglary	0.00	0.03	0.00	0.67
Arson	0.01	0.04	0.00	1.23
Vandalism	0.10	0.56	0.00	66.67
Criminal Trespass	0.02	0.14	0.00	2.86
Possession/Use of Controlled Substance	0.19	0.40	0.00	14.29
Sale or Distribution of a Controlled Substance	0.01	0.07	0.00	7.69
Possession/Use or Sale of Alcohol	0.04	0.16	0.00	5.10
Possession/Use or Sale of Tobacco or Vaping	0.65	1.25	0.00	15.38
Cyber Harassment	0.01	0.08	0.00	3.14
Academic Dishonesty	0.13	1.46	0.00	48.36
School Code of Conduct	6.01	14.54	0.00	166.77

Notes: Sample size is 2,875 schools representing 1,701,550 students. Each variable is from the 2018-19 school year. Each variable is at the school level. Each dependent variable is divided by student enrollment (in 100s). Each variable is weighted by total student enrollment.

Table 3: Sector Differences (Independent Variables)

Variables	District-Run	Regular	Cyber
		Charter	Charter
Low Income (%)	44.23	***67.98	47.04
English Language Learners (%)	3.97	5.09	***1.27
Students with Disabilities (%)	17.08	*18.15	***22.79
White (%)	67.71	***21.12	62.85
Female (%)	48.54	***50.99	***53.10
K-5 School (%)	15.57	***5.04	***0.00
K-6 School (%)	8.26	**4.23	***0.00
6-8 School (%)	10.20	***0.27	***0.00
9-12 School (%)	24.35	***8.94	***0.38
K-12 School (%)	0.07	***29.10	***90.64
Philadelphia County (%)	8.25	***62.30	***2.07
Allegheny County (%)	8.71	7.70	**2.26
Montgomery County (%)	6.87	***0.22	20.40

Notes: Sample size is 2,875 schools representing 1,701,550 students. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. Each variable is from the 2018-19 school year. Each variable is at the school level, except Students with Disabilities percentage and White percentage, which are both at the district level. Each variable is weighted by total student enrollment.

Table 4: Sector Differences (Dependent Variables)

Variables	District-Run	Regular Charter	Cyber Charter
Misconduct – Academic or Code of Conduct	5.99	*9.99	***0.03
Misconduct – All Other	3.97	3.64	***0.01
Offender Misconduct – Academic or Code of Conduct	2.39	**4.99	***0.03
Offender Misconduct – All Other	3.58	3.65	***0.01
Local Law Enforcement Involved	0.94	***0.26	***0.00
Total Arrests	0.22	***0.02	***0.00
Assigned to Alternative	0.13	***0.01	***0.00
Student Aggravated	0.04	***0.01	***0.00
Student Simple	0.23	0.36	***0.00
Staff Aggravated	0.02	**0.01	***0.00
Staff Simple	0.15	*0.09	***0.00
Racial / Ethnic Intimidation	0.02	0.02	***0.00
Other Harassment / Intimidation	0.23	***0.05	***0.00
Fighting	0.62	0.82	***0.00
Minor Altercation	0.38	0.63	***0.00
Rape	0.00	*0.00	*0.00
Involuntary Sexual Deviate Intercourse	0.00	***0.00	***0.00
Statutory Sexual Assault	0.00	0.00	0.00
Sexual Assault	0.00	+0.01	***0.00
Aggravated Indecent Assault	0.00	*0.00	*0.00
Indecent Assault	0.01	***0.00	***0.00
Indecent Exposure	0.01	0.01	***0.00
Open Lewdness	0.01	*0.00	***0.00
Obscene / Other Sexual Materials and Performances	0.04	0.03	***0.00
Sexual Harassment	0.04	0.06	***0.00
Stalking	0.00	0.00	0.00
Kidnapping	0.00	**0.00	**0.00
Unlawful Restraint	0.00	0.00	0.00
Threatening a School Official / Student	0.26	*0.18	***0.00
Reckless Endangerment	0.12	***0.02	***0.00
Robbery	0.01	***0.00	***0.00
Theft	0.11	0.11	***0.00
Bullying	0.12	0.14	***0.00
Suicide Attempt	0.00	+0.00	***0.00

Notes: Sample size is 2,875 schools representing 1,701,550 students. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. Each variable is from the 2018-19 school year. Each variable is at the school level. Each dependent variable is divided by student enrollment (in 100s). Each variable is weighted by total student enrollment.

Table 4 (Continued): Sector Differences (Dependent Variables)

Variables	District-Run	Regular	Cyber	
		Charter	Charter	
Rioting	0.01	***0.00	***0.00	
Bomb Threats	0.01	0.00	***0.00	
Terroristic Threats (Excluding Bomb Threats)	0.05	*0.03	***0.00	
Failure of Disorderly Persons to Disperse	0.12	0.14	***0.00	
Disorderly Conduct	0.31	0.53	***0.00	
Handgun	0.00	0.00	***0.00	
Rifle or Shotgun	0.00	0.00	0.00	
Other Firearm	0.00	0.00	***0.00	
Possession of a Knife	0.07	+0.05	***0.00	
Cutting Instrument	0.03	0.03	***0.00	
Explosive	0.00	***0.00	***0.00	
Pellet Gun	0.00	0.00	***0.00	
Possession of Other Weapon	0.03	0.04	***0.00	
Burglary	0.00	***0.00	***0.00	
Arson	0.01	0.00	***0.00	
Vandalism	0.10	**0.05	***0.00	
Criminal Trespass	0.02	**0.00	**0.00	
Possession/Use of Controlled Substance	0.20	0.16	***0.00	
Sale or Distribution of a Controlled Substance	0.01	0.01	***0.00	
Possession/Use or Sale of Alcohol	0.04	***0.01	***0.00	
Possession/Use or Sale of Tobacco or Vaping	0.70	***0.14	***0.00	
Cyber Harassment	0.01	+0.03	***0.00	
Academic Dishonesty	0.14	*0.03	***0.00	
School Code of Conduct	5.89	*9.98	***0.03	
N (Schools)	2,698	162	15	
N (Students)	1,559,478	104,733	37,339	

Notes: Sample size is 2,875 schools representing 1,701,550 students. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. Each variable is from the 2018-19 school year. Each variable is at the school level. Each dependent variable is divided by student enrollment (in 100s). Each variable is weighted by total student enrollment.

Methods

The main analysis employs an ordinary least squares regression model of the form:

Climate_Problem_i = $\beta_0 + \beta_1 Regular_Charter_1 + \beta_2 Cyber_Charter_1 + X_1 + \varepsilon_1$ Where the dependent variable of interest, Climate_Problem, is the count of each safety problem which occurred in each school, *i*, during the 2018-19 school year in Pennsylvania divided by each school's student enrollment (in 100s). Although 61 school climate problems are reported by the Pennsylvania Department of Education, three of these problems are dropped from the analysis because they never occurred in the 2018-19 school year. After limiting the sample of outcomes to categories of incidents that occurred at least one time in the 2018-19 school year, 58 school climate outcomes are included in this study. Additional information on each dependent variable can be found at the Pennsylvania Department of Education website.

The first independent variable of interest, *Regular_Charter*, takes on the value of one if the observation is a brick-and-mortar public charter school and zero if the observation is a district-run public school or a cyber charter school. The second independent variable of interest, *Cyber Charter*, takes on the value of one if the observation is a cyber charter school and zero if

The following 58 outcomes are examined in the study: academic or code of conduct misconducts, all other misconducts, academic or code of conduct misconducts with offenders, all other misconducts with offenders, incidents involving law enforcement, total arrests, assignments to alternative education, aggravated assaults on students, simple assaults on staff, racial or ethnic intimidation, other harassment or intimidation, fighting, minor altercations, rape, involuntary sexual deviate intercourse, statutory sexual assault, sexual assault, aggravated indecent assault, indecent assault, indecent exposure, open lewdness, obscene and other sexual materials and performances, sexual harassment, stalking, kidnapping, unlawful restraint, threatening a school official or student, reckless endangerment, robbery, theft, bullying, suicide attempt, rioting, bomb threats, other terroristic threats, failure of disorderly persons to disperse upon official order, disorderly conduct, handgun, rifle or shotgun, other firearm, possession of a knife, cutting instrument, explosive, pellet gun, possession of other weapon, burglary, arson, vandalism, criminal trespassing, possession or use of a controlled substance, sale or distribution of a controlled substance, sale or possession or use of alcohol, possession or use or sale of tobacco or vaping, cyber harassment, academic dishonesty, and school code of conduct.

¹⁵ Pennsylvania Information Management System Volume 2 USER Manual Version 1.2. Pennsylvania Department of Education. Retrieved from https://www.education.pa.gov/Documents/Teachers-Administrators/PIMS/PIMS%20Manuals/2019-2020%20PIMS%20Manual%20Vol%202.pdf

the observation is a district-run public school or a brick-and-mortar charter school. Vector *X* includes controls for differences in schools (enrollment, enrollment squared, grades served (13 indicator variables), and county (67 indicator variables for counties)) and students (percent low-income, percent low-income squared, percent English language learners, percent English language learners squared, percent female, percent female squared, percent students with disabilities, percent students with disabilities squared, percent White, and percent White squared) between sectors. ¹⁶ The error term is ε Each school-level observation is weighted by total student enrollment in each model. Nonpublic schools are excluded from all analyses.

The distribution of each dependent variable is right-skewed because a substantial proportion of schools report zero incidents of specific climate problems (see Appendix Figure A1 for an example). Because of the mixed discrete-continuous nature of the outcome data, a two-part model is also employed as a robustness check (Belotti et al., 2015). In the two-part model, a probit model is fit for the probability of observing a positive-versus-zero outcome in the 2018-19 school year in the first part. Then, conditional on a positive outcome, an ordinary least squares regression model is fit for positive outcome in the second part. The two-part model, used as a robustness check in this study, takes on the form:

$$Prob(Problem_Exists_i) = \beta_0 + \beta_1 Regular_Charter_i + \beta_2 Cyber_Charter_i + X_i + \varepsilon_i$$
 (Part 1)

$$\label{eq:climate_Problem_i} Climate_Problem_i = \beta_0 + \beta_1 Regular_Charter_i + \beta_2 Cyber_Charter_i + X_i + \epsilon_i \qquad \qquad (Part \ 2)$$

Where the dependent variable in the first step, *Problem_Exists*, takes on the value of one if at least one climate problem exists for school, *i*, in the 2018-19 school year and zero otherwise. The remaining variables are identical to the model used in the main analysis. The results from the two-step model can be found in Appendix Tables A11 though A20.

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¹⁶ Sixty schools (2%) with fewer than 10 White students enrolled did not report the specific enrollment count for White students for privacy reasons. Zeros were imputed for this variable for each of these observations.

Results

The results from the main analysis suggest that public charter schools generally report fewer climate problems than district-run public schools in Pennsylvania in the 2018-19 school year (Table 5 – Table 14). Twenty-seven of the 30 statistically significant results detected by the fully specified model indicate school climate advantages for regular public charter schools relative to district-run public schools in the state. For every 100 students in total enrollment, relative to similar district-run public schools in the same county, regular public charter schools report 4.60 fewer all other misconducts, 3.66 fewer all other misconducts with offenders, 0.72 fewer incidents with local law enforcement involved, 0.09 fewer arrests, 0.36 fewer assignments to alternative education, 0.17 fewer aggravated assaults on students, 0.07 fewer aggravated assaults on staff, 0.73 fewer simple assaults on staff, 0.56 fewer instances of harassment or intimidation (non-racial and non-sexual), 0.99 fewer physical fights, 0.01 fewer instances of involuntary sexual deviate intercourse, 0.02 fewer indecent assaults, 0.01 fewer open lewdness incidents, 0.07 fewer instances of obscene and other sexual materials and performances, 0.01 fewer kidnapping incidents, 0.44 fewer threats of school officials or students, 0.68 fewer instances of reckless endangerment, 0.02 fewer robberies, 0.03 fewer suicide attempts, 0.03 incidents involving cutting instruments, 0.02 fewer incidents involving explosives, 0.04 fewer incidents involving other weapons, 0.01 fewer burglaries, 0.02 fewer instances of arson, 0.15 fewer vandalisms, 0.15 fewer instances of criminal trespassing, and 0.02 fewer incidents involving alcohol. Three statistically significant differences indicate that regular public charter schools report 3.49 more academic or code of conduct misconducts, 2.37 more academic or code of conduct misconducts with offenders, and 3.40 more school code of conduct violations than district-run public schools.

The statistically significant school climate differences are generally moderate to large in size. Relative to the sample standard deviations reported in Table 2, these results are equal to around a 61% reduction in all other misconducts, a 77% reduction in all other misconducts with offenders, a 50% reduction in incidents with local law enforcement involved, a 15% reduction in arrests, a 78% reduction in assignments to alternative education, an 89% reduction in aggravated assaults on students, a 44% reduction in aggravated assaults on staff, a 112% reduction in simple assaults on staff, an 82% reduction in harassment or intimidation (non-racial and non-sexual), a 69% reduction in physical fights, a 50% reduction in involuntary sexual deviate intercourse, a 50% reduction in indecent assaults, a 17% reduction in open lewdness, a 33% reduction in obscene and other sexual materials and performances, a 100% reduction in kidnapping, a 56% reduction in threats of school officials or students, a 96% reduction in instances of reckless endangerment, a 50% reduction in robberies, a 75% reduction in suicide attempts, a 38% reduction in incidents involving cutting instruments, a 50% reduction in incidents involving explosives, a 40% reduction in incidents involving other weapons, a 33% reduction in burglaries, a 50% reduction in arson, a 27% reduction in instances of vandalism, a 29% reduction in criminal trespassing, a 13% reduction in incidents involving alcohol, a 24% increase in academic or code of conduct misconducts, a 46% increase in academic or code of conduct misconducts with offenders than district-run public schools, and a 23% increase in school code of conduct violations.

Cyber charter schools also generally report fewer school climate problems than similar district-run schools in the state. Each of the 21 statistically significant results detected by the fully specified model indicates school climate advantages for cyber charter schools relative to district-run public schools in the state. The large school climate advantages for cyber charter

schools might be because most climate problems are much less likely to arise virtually than in inperson settings. For example, it is not likely that a physical fight will occur at a cyber school unless the incident happens between siblings or when the school holds in-person events. The cyber school advantages might also be explained by systematic differences in reporting virtual and in-person incidents. However, all public schools are required to report each of these types of school climate problems to the Pennsylvania Department of Education's Office for Safe Schools each school year.¹⁷ These overall results are generally robust to various model specifications and analytic techniques.¹⁸

The public charter school sector advantages tend to be larger for schools located in Philadelphia County and for schools serving students in grades 9 through 12. Twenty-five of 26 statistically significant heterogenous effects indicate that between-sector school climate advantages are larger for regular charter schools located in Philadelphia County than for regular charter schools located in the rest of the state (Table 15 – Table 24). Thirty of the 34 statistically significant results for schools located in Philadelphia County indicate that public charter schools report fewer school climate problems than district-run public schools serving similar student populations. Ten statistically significant heterogeneous effects each indicate that between-sector school climate advantages are larger for regular charter high schools than for regular charter schools serving other grade levels. Each of the 32 statistically significant results for schools serving grades 9 through 12 indicates that public charter schools report fewer school climate problems than district-run public schools serving similar student populations.

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Rules and Regulations. Title 22 – Education. Safe Schools. Pennsylvania Department of Education. Retrieved from https://www.education.pa.gov/Documents/K-12/Safe%20Schools/Chapter%2010%2042%20PaB%204574.pdf
 Results based on seven models using varying amounts of control variables can be found in Appendix Table A1 through A10. Results based on two-part models can be found in Appendix Table A11 through A20.

Table 5: School Sector and Climate Problems

	Misconduct Academic or Code of Conduct	All Other Misconduct	Offender Academic or Code of Conduct	Offender Other Misconduct	Law Enforcement Involved	Total Arrests
Regular Charter	3.486*	-4.601***	2.371**	-3.660***	-0.718***	-0.094*
	(0.038)	(0.000)	(0.003)	(0.000)	(0.000)	(0.019)
Cyber Charter	-13.343**	-5.628***	-4.337**	-4.914***	-0.962***	-0.162+
	(0.001)	(0.000)	(0.006)	(0.000)	(0.000)	(0.063)
Enrollment (100s)	0.390***	0.015	0.136***	0.029	0.027**	0.008*
` ,	(0.000)	(0.752)	(0.000)	(0.467)	(0.003)	(0.041)
Enrollment Squared	-0.004**	0.000	-0.001**	-0.000	-0.000*	-0.000+
	(0.009)	(0.894)	(0.009)	(0.709)	(0.015)	(0.095)
Low Income (%)	-0.068	0.031	-0.036	0.038*	0.013**	0.004+
_ (, ,)	(0.306)	(0.181)	(0.115)	(0.013)	(0.006)	(0.069)
Low Income Squared	0.002*	0.001+	0.001**	0.000	0.000	0.000
1	(0.016)	(0.095)	(0.005)	(0.146)	(0.932)	(0.664)
English Language (%)	0.092	-0.094	0.040	-0.057	-0.002	-0.001
	(0.529)	(0.208)	(0.430)	(0.240)	(0.870)	(0.884)
English Language Squared	-0.006	0.001	-0.003*	0.000	-0.000	-0.000
	(0.116)	(0.720)	(0.040)	(0.803)	(0.388)	(0.430)
Female (%)	0.435	-1.045+	0.108	-0.753**	-0.085	-0.035
()	(0.278)	(0.092)	(0.462)	(0.004)	(0.128)	(0.230)
Female Squared	-0.005	0.008	-0.001	0.005*	0.000	0.000
1	(0.200)	(0.151)	(0.289)	(0.023)	(0.328)	(0.336)
SWD (%)	0.693**	0.147	0.353***	0.106	0.013	0.003
	(0.009)	(0.123)	(0.001)	(0.120)	(0.513)	(0.714)
SWD Squared	-0.009	-0.003	-0.005*	-0.002	-0.000	-0.000
	(0.137)	(0.230)	(0.041)	(0.345)	(0.707)	(0.379)
White (%)	-0.047	-0.049	-0.053+	-0.071**	0.015*	0.010***
	(0.633)	(0.163)	(0.081)	(0.002)	(0.012)	(0.000)
White Squared	-0.000	0.000	0.000	0.000	-0.000*	-0.000***
	(0.809)	(0.845)	(0.305)	(0.151)	(0.029)	(0.000)
R-Squared	0.2432	0.2095	0.2761	0.3984	0.3126	0.1877
N	2875	2875	2875	2875	2875	2875

Table 6: School Sector and Climate Problems

	Assigned to Alternative	Student Aggravated	Student Simple	Staff Aggravated	Staff Simple	Racial Harassment
Regular Charter	-0.362***	-0.166***	-0.039	-0.071***	-0.732***	0.006
regular Charter	(0.000)	(0.000)	(0.777)	(0.000)	(0.000)	(0.310)
Cyber Charter	0.025	-0.083**	-0.195	-0.020	-0.303*	-0.035+
•	(0.809)	(0.007)	(0.204)	(0.410)	(0.024)	(0.075)
Enrollment (100s)	-0.008*	-0.002*	-0.003	-0.002***	-0.007*	-0.001*
	(0.012)	(0.015)	(0.498)	(0.000)	(0.014)	(0.019)
Enrollment Squared	0.000**	0.000**	0.000	0.000**	0.000**	0.000*
	(0.003)	(0.007)	(0.776)	(0.004)	(0.009)	(0.011)
Low Income (%)	0.001	-0.000	0.003	-0.000	-0.001	0.001+
	(0.310)	(0.896)	(0.244)	(0.364)	(0.739)	(0.073)
Low Income Squared	0.000	0.000**	0.000	0.000*	0.000**	-0.000+
	(0.237)	(0.006)	(0.666)	(0.023)	(0.002)	(0.067)
English Language (%)	0.005	-0.003	0.004	-0.002	-0.002	-0.000
	(0.338)	(0.103)	(0.553)	(0.278)	(0.804)	(0.967)
English Language Squared	-0.000	0.000	-0.000	-0.000	-0.000	0.000
	(0.520)	(0.994)	(0.187)	(0.749)	(0.831)	(0.585)
Female (%)	-0.097*	-0.012	-0.069*	-0.021+	-0.064+	0.002
	(0.014)	(0.284)	(0.013)	(0.086)	(0.078)	(0.300)
Female Squared	0.001+	0.000	0.000*	0.000	0.000	-0.000
	(0.058)	(0.325)	(0.041)	(0.144)	(0.196)	(0.263)
SWD (%)	-0.005	-0.004+	-0.007	-0.001	-0.036**	0.002
	(0.412)	(0.068)	(0.588)	(0.728)	(0.002)	(0.267)
SWD Squared	-0.000	0.000	0.000	0.000	0.001*	-0.000
	(0.413)	(0.261)	(0.386)	(1.000)	(0.045)	(0.275)
White (%)	-0.003	0.001	-0.010+	-0.001	0.003	-0.000
	(0.184)	(0.260)	(0.071)	(0.570)	(0.195)	(0.531)
White Squared	0.000	-0.000	0.000	-0.000	-0.000	0.000
	(0.273)	(0.149)	(0.242)	(0.902)	(0.158)	(0.259)
R-Squared	0.2580	0.1183	0.0969	0.0843	0.2424	0.0791
N	2875	2875	2875	2875	2875	2875

Table 7: School Sector and Climate Problems

	Other Harassment	Fighting	Minor Altercation	Rape	Involuntary Sexual	Statutory Sexual Assault
Regular Charter	-0.559***	-0.985***	0.020	-0.000	-0.005**	-0.000
Ç	(0.000)	(0.000)	(0.941)	(0.448)	(0.003)	(0.320)
Cyber Charter	-0.158	-1.129***	-0.649	0.001	-0.003+	-0.001
	(0.145)	(0.000)	(0.104)	(0.292)	(0.095)	(0.339)
Enrollment (100s)	0.003	0.012	-0.011	0.000	-0.000+	0.000
	(0.519)	(0.400)	(0.396)	(0.308)	(0.093)	(0.331)
Enrollment Squared	-0.000	-0.000	0.000	-0.000	0.000*	-0.000
	(0.600)	(0.835)	(0.150)	(0.200)	(0.025)	(0.484)
Low Income (%)	0.002	0.007	-0.007	0.000*	-0.000	-0.000
	(0.305)	(0.120)	(0.457)	(0.026)	(0.894)	(0.417)
Low Income Squared	0.000	0.000	0.000	-0.000*	0.000	0.000
	(0.998)	(0.111)	(0.130)	(0.037)	(0.201)	(0.360)
English Language (%)	0.018*	-0.025	-0.056+	0.000*	-0.001**	-0.000
	(0.039)	(0.107)	(0.062)	(0.020)	(0.005)	(0.320)
English Language Squared	-0.000+	0.000	0.001+	-0.000*	0.000*	0.000
	(0.059)	(0.352)	(0.063)	(0.027)	(0.016)	(0.323)
Female (%)	-0.086*	-0.162*	-0.222	0.000	-0.000	0.000
	(0.023)	(0.018)	(0.421)	(0.802)	(0.886)	(0.323)
Female Squared	0.001+	0.001+	0.002	-0.000	0.000	-0.000
	(0.059)	(0.051)	(0.410)	(0.551)	(0.908)	(0.327)
SWD (%)	-0.002	0.017	0.067+	0.000	0.000	0.000
	(0.800)	(0.327)	(0.063)	(0.996)	(0.726)	(0.318)
SWD Squared	-0.000	-0.000	-0.001	-0.000	-0.000	-0.000
	(0.554)	(0.486)	(0.190)	(0.807)	(0.308)	(0.337)
White (%)	-0.007*	-0.029***	0.018	-0.000	0.000	-0.000
	(0.026)	(0.000)	(0.145)	(0.902)	(0.180)	(0.318)
White Squared	0.000	0.000+	-0.000*	0.000	-0.000**	0.000
-	(0.114)	(0.085)	(0.022)	(0.795)	(0.006)	(0.315)
R-Squared	0.2054	0.3139	0.0530	0.0675	0.0470	0.0272
N	2875	2875	2875	2875	2875	2875

Table 8: School Sector and Climate Problems

	Sexual Assault	Aggravated Indecent Assault	Indecent Assault	Indecent Exposure	Open Lewdness	Obscene Materials and Acts
Regular Charter	0.005	0.000	-0.021***	-0.006	-0.008*	-0.070**
	(0.468)	(0.994)	(0.000)	(0.271)	(0.030)	(0.003)
Cyber Charter	-0.004	0.001	-0.004	-0.012	-0.023*	-0.028
•	(0.505)	(0.614)	(0.478)	(0.115)	(0.012)	(0.385)
Enrollment (100s)	0.000	-0.000	-0.000	0.000	-0.000	0.000
, ,	(0.157)	(0.498)	(0.190)	(0.171)	(0.170)	(0.892)
Enrollment Squared	-0.000	0.000	0.000	-0.000	0.000	-0.000
-	(0.171)	(0.609)	(0.327)	(0.324)	(0.151)	(0.759)
Low Income (%)	-0.000	0.000	0.000	0.000	0.001***	0.001+
. ,	(0.870)	(0.809)	(0.234)	(0.116)	(0.000)	(0.089)
Low Income Squared	0.000	-0.000	-0.000	-0.000	-0.000**	-0.000
•	(0.612)	(0.413)	(0.300)	(0.566)	(0.002)	(0.390)
English Language (%)	0.000	-0.000	-0.000	-0.000	-0.000	0.002
	(0.809)	(0.228)	(0.488)	(0.319)	(0.247)	(0.418)
English Language Squared	-0.000	0.000	0.000	0.000	0.000	-0.000
	(0.544)	(0.315)	(0.851)	(0.805)	(0.508)	(0.691)
Female (%)	-0.003	-0.002	-0.005	-0.006	-0.001	-0.006
` ,	(0.124)	(0.388)	(0.293)	(0.353)	(0.697)	(0.320)
Female Squared	0.000	0.000	0.000	0.000	0.000	0.000
•	(0.183)	(0.404)	(0.338)	(0.363)	(0.671)	(0.334)
SWD (%)	0.000	0.000+	0.000	0.001	-0.000	-0.002
. ,	(0.625)	(0.097)	(0.830)	(0.385)	(0.964)	(0.223)
SWD Squared	0.000	-0.000	-0.000	-0.000	0.000	0.000
	(0.902)	(0.127)	(0.524)	(0.473)	(0.590)	(0.584)
White (%)	0.000	-0.000	-0.000	0.000	-0.000	-0.001
	(0.247)	(0.625)	(0.110)	(0.461)	(0.583)	(0.110)
White Squared	-0.000	-0.000	0.000	-0.000	0.000	0.000+
	(0.163)	(0.146)	(0.490)	(0.184)	(0.897)	(0.070)
R-Squared	0.0470	0.0223	0.0549	0.0788	0.0822	0.0654
N	2875	2875	2875	2875	2875	2875

Table 9: School Sector and Climate Problems

	Sexual Harassment	Stalking	Kidnapping	Unlawful Restraint	Threat Official or Student	Reckless Endanger
Regular Charter	0.036+	0.000	-0.005*	0.003	-0.437***	-0.677***
-	(0.065)	(0.867)	(0.013)	(0.242)	(0.000)	(0.000)
Cyber Charter	-0.040	-0.000	-0.003+	-0.001	-0.333*	-0.007
	(0.176)	(0.429)	(0.051)	(0.773)	(0.011)	(0.960)
Enrollment (100s)	0.001	0.000	0.000	-0.000	-0.011**	-0.010*
Elifonnicht (1003)	(0.247)	(0.190)	(0.794)	(0.769)	(0.006)	(0.029)
Envallment Canarad	0.000	-0.000	-0.000	0.000	0.000**	0.000**
Enrollment Squared	-0.000 (0.276)	(0.185)	(0.881)	(0.709)	(0.005)	(0.005)
	. ,	, ,	, ,		,	` ,
Low Income (%)	-0.001+	-0.000	-0.000	0.000	0.002	0.003+
	(0.051)	(0.474)	(0.619)	(0.112)	(0.481)	(0.060)
Low Income Squared	0.000*	0.000	0.000	-0.000	0.000+	0.000
1 1	(0.019)	(0.225)	(0.428)	(0.105)	(0.058)	(0.199)
English Language (%)	-0.001	-0.000	-0.000	0.000	-0.007	-0.001
8 2	(0.531)	(0.152)	(0.261)	(0.555)	(0.564)	(0.866)
English Language Squared	0.000	0.000	0.000	0.000	0.000	-0.000
	(0.267)	(0.177)	(0.374)	(0.312)	(0.496)	(0.149)
Female (%)	-0.006	0.000	0.000	-0.000	-0.070+	-0.117*
Terriare (70)	(0.267)	(0.405)	(0.138)	(0.717)	(0.055)	(0.020)
Female Squared	0.000	-0.000	-0.000	-0.000	0.001	0.001+
i cinaic squared	(0.326)	(0.414)	(0.122)	(0.989)	(0.120)	(0.064)
SWD (%)	0.004*	-0.000	-0.000*	-0.000	0.016+	-0.031***
SWD (70)	(0.040)	(0.183)	(0.032)	(0.622)	(0.083)	(0.000)
SWD Squared	-0.000	0.000	0.000*	-0.000	-0.000+	0.000+
5 W B Squared	(0.212)	(0.211)	(0.044)	(0.961)	(0.055)	(0.081)
White (%)	-0.001	0.000	0.000	0.000	0.006	0.001
(/ • /)	(0.160)	(0.126)	(0.281)	(0.381)	(0.145)	(0.699)
White Squared	0.000	-0.000	-0.000	-0.000	-0.000*	-0.000
•	(0.606)	(0.140)	(0.165)	(0.246)	(0.022)	(0.534)
R-Squared	0.1192	0.1190	0.0356	0.0399	0.1463	0.0397
N	2875	2875	2875	2875	2875	2875

Table 10: School Sector and Climate Problems

	Robbery	Theft	Bullying	Suicide	Rioting	Bomb Threat
Regular Charter	-0.016***	-0.010	0.020	Attempt -0.026***	-0.014+	-0.003
Regular Charter	(0.000)	(0.778)	(0.740)	(0.000)	(0.097)	(0.716)
	(0.000)	(0.770)	(0.7 10)	(0.000)	(0.057)	(0.710)
Cyber Charter	-0.012	-0.201***	-0.137*	-0.007	-0.013	0.004
- 9 - 1 - 1 - 1	(0.297)	(0.000)	(0.038)	(0.407)	(0.370)	(0.617)
	,	,	,	,	,	,
Enrollment (100s)	0.000	0.004	-0.001	-0.000	-0.002*	-0.001**
	(0.340)	(0.174)	(0.669)	(0.317)	(0.011)	(0.003)
Enrollment Squared	-0.000	-0.000	0.000	0.000	0.000*	0.000**
	(0.960)	(0.272)	(0.724)	(0.155)	(0.010)	(0.002)
				0.00-		
Low Income (%)	0.000**	0.002*	0.000	0.000	-0.000	0.000*
	(0.008)	(0.022)	(0.897)	(0.299)	(0.745)	(0.032)
I I C 1	0.000*	0.000	0.000	0.000	0.000	0.000
Low Income Squared	-0.000*	-0.000	0.000	0.000	0.000	-0.000
	(0.030)	(0.912)	(0.292)	(0.837)	(0.167)	(0.295)
English Language (%)	0.001+	-0.004*	0.004	-0.000	-0.004*	-0.001
English Euriguage (70)	(0.060)	(0.044)	(0.265)	(0.759)	(0.035)	(0.130)
	(0.000)	(0.011)	(0.203)	(0.757)	(0.055)	(0.130)
English Language Squared	-0.000*	-0.000	-0.000	-0.000	0.000*	0.000
	(0.027)	(0.984)	(0.503)	(0.816)	(0.029)	(0.396)
	,	,	,	,	,	,
Female (%)	-0.004+	-0.001	-0.010	-0.004	-0.002	-0.003
	(0.087)	(0.927)	(0.338)	(0.309)	(0.566)	(0.273)
Female Squared	0.000	-0.000	0.000	0.000	0.000	0.000
	(0.146)	(0.888)	(0.257)	(0.355)	(0.650)	(0.359)
SWD (%)	0.000	-0.001	0.013*	-0.001**	0.004*	0.001
5112 (70)	(0.698)	(0.855)	(0.035)	(0.004)	(0.011)	(0.181)
SWD Squared	0.000	0.000	-0.000	0.000	-0.000**	-0.000+
S () Squared	(0.603)	(0.818)	(0.188)	(0.102)	(0.010)	(0.066)
White (%)	0.000	-0.000	-0.001	0.000	0.001*	0.000
()	(0.961)	(0.781)	(0.513)	(0.585)	(0.011)	(0.559)
White Squared	-0.000	-0.000	0.000	-0.000	-0.000**	-0.000
1	(0.411)	(0.899)	(0.764)	(0.280)	(0.001)	(0.229)
R-Squared	0.0886	0.1252	0.1188	0.1057	0.0699	0.0427
N	2875	2875	2875	2875	2875	2875

Table 11: School Sector and Climate Problems

	Terror Threats	Failure to Disperse	Disorderly Conduct	Handgun	Rifle or Shotgun	Other Firearm
Regular Charter	0.004	0.020	-0.342+	0.004	-0.000	-0.005
	(0.748)	(0.740)	(0.085)	(0.226)	(0.415)	(0.243)
Cyber Charter	-0.057**	-0.137*	-0.856*	0.004	0.001	-0.004
•	(0.003)	(0.038)	(0.031)	(0.273)	(0.294)	(0.322)
Enrollment (100s)	0.000	-0.001	0.008	-0.000	-0.000	-0.000*
	(0.580)	(0.669)	(0.521)	(0.151)	(0.254)	(0.028)
Enrollment Squared	-0.000	0.000	-0.000	0.000	0.000	0.000*
•	(0.730)	(0.724)	(0.443)	(0.199)	(0.283)	(0.016)
Low Income (%)	-0.000	0.000	-0.005	-0.000	0.000	0.000*
` '	(0.986)	(0.897)	(0.484)	(0.352)	(0.209)	(0.038)
Low Income Squared	0.000	0.000	0.000	0.000	-0.000	-0.000
	(0.290)	(0.292)	(0.241)	(0.388)	(0.128)	(0.405)
English Language (%)	-0.004**	0.004	0.016	0.000	-0.000	-0.000
	(0.002)	(0.265)	(0.445)	(0.140)	(0.918)	(0.633)
English Language Squared	0.000**	-0.000	-0.001	-0.000*	0.000	-0.000
	(0.007)	(0.503)	(0.165)	(0.046)	(0.801)	(0.860)
Female (%)	-0.007	-0.010	-0.021	-0.000	0.000	0.000
	(0.404)	(0.338)	(0.506)	(0.809)	(0.104)	(0.927)
Female Squared	0.000	0.000	0.000	0.000	-0.000+	-0.000
•	(0.422)	(0.257)	(0.566)	(0.962)	(0.093)	(0.995)
SWD (%)	0.007***	0.013*	0.026	0.001*	-0.000	-0.001
• •	(0.001)	(0.035)	(0.186)	(0.022)	(0.502)	(0.101)
SWD Squared	-0.000**	-0.000	-0.000	-0.000*	-0.000	0.000 +
	(0.006)	(0.188)	(0.441)	(0.027)	(0.996)	(0.081)
White (%)	0.001*	-0.001	-0.024	0.000	-0.000	0.000+
	(0.041)	(0.513)	(0.138)	(0.909)	(0.139)	(0.098)
White Squared	-0.000**	0.000	0.000	-0.000	0.000	-0.000*
	(0.006)	(0.764)	(0.377)	(0.704)	(0.206)	(0.035)
R-Squared	0.1107	0.1188	0.1205	0.0328	0.1403	0.0308
N	2875	2875	2875	2875	2875	2875

Table 12: School Sector and Climate Problems

	Knife Possession	Cutting Instrument	Explosive	Pellet Gun	Other Weapon	Burglary
Regular Charter	-0.021	-0.033***	-0.023***	0.004	-0.041*	-0.009***
C	(0.120)	(0.001)	(0.000)	(0.306)	(0.012)	(0.001)
Cyber Charter	-0.045*	-0.027	-0.006	-0.001	-0.021	-0.011***
	(0.035)	(0.163)	(0.370)	(0.754)	(0.298)	(0.000)
Enrollment (100s)	-0.000	-0.000	-0.000	-0.000	-0.001	-0.000
	(0.907)	(0.815)	(0.157)	(0.331)	(0.103)	(0.497)
Enrollment Squared	-0.000	-0.000	0.000	0.000	0.000+	0.000
	(0.819)	(0.945)	(0.118)	(0.517)	(0.055)	(0.442)
Low Income (%)	0.002***	0.000	0.000*	0.000	0.001*	-0.000
	(0.000)	(0.679)	(0.015)	(0.280)	(0.025)	(0.844)
Low Income Squared	-0.000	0.000	-0.000	0.000	-0.000	0.000
	(0.226)	(0.393)	(0.410)	(0.983)	(0.607)	(0.348)
English Language (%)	0.001	0.001	-0.002+	-0.000	-0.000	-0.001**
	(0.210)	(0.394)	(0.062)	(0.701)	(0.731)	(0.005)
English Language Squared	-0.000	-0.000	0.000	0.000	-0.000	0.000*
	(0.201)	(0.434)	(0.113)	(0.808)	(0.532)	(0.022)
Female (%)	-0.013**	-0.005+	-0.006+	-0.002	-0.004	0.000
	(0.006)	(0.067)	(0.057)	(0.104)	(0.451)	(0.821)
Female Squared	0.000*	0.000+	0.000	0.000	0.000	-0.000
	(0.017)	(0.057)	(0.115)	(0.137)	(0.673)	(0.820)
SWD (%)	0.005**	-0.003	-0.001	0.000	0.000	0.000
	(0.007)	(0.337)	(0.118)	(0.272)	(0.755)	(0.293)
SWD Squared	-0.000**	0.000	0.000	-0.000+	-0.000	-0.000
	(0.003)	(0.269)	(0.883)	(0.092)	(0.772)	(0.188)
White (%)	-0.000	-0.000	0.000	0.000	-0.001*	0.000
	(0.392)	(0.587)	(0.335)	(0.347)	(0.030)	(0.794)
White Squared	0.000	0.000	-0.000	-0.000	0.000	-0.000
	(0.279)	(0.879)	(0.130)	(0.200)	(0.145)	(0.395)
R-Squared	0.1113	0.0889	0.1453	0.0406	0.1104	0.0367
N	2875	2875	2875	2875	2875	2875

Table 13: School Sector and Climate Problems

	Arson	Vandalism	Criminal Trespass	Possess Controlled Substance	Distribute Controlled Substance	Alcohol
Regular Charter	-0.020***	-0.144***	-0.042**	-0.048	-0.001	-0.016*
-	(0.001)	(0.000)	(0.003)	(0.276)	(0.821)	(0.032)
Cyber Charter	0.000	-0.113+	-0.058	-0.301***	-0.015+	-0.044*
	(0.981)	(0.092)	(0.172)	(0.000)	(0.081)	(0.019)
Enrollment (100s)	-0.000	-0.004*	0.006	0.014***	0.001+	0.002*
	(0.684)	(0.024)	(0.145)	(0.000)	(0.063)	(0.018)
Enrollment Squared	0.000	0.000**	-0.000	-0.000***	-0.000	-0.000+
	(0.611)	(0.004)	(0.181)	(0.000)	(0.137)	(0.060)
Low Income (%)	0.000	0.001	0.001	0.004**	0.000	0.001+
	(0.209)	(0.251)	(0.567)	(0.003)	(0.222)	(0.092)
Low Income Squared	-0.000	0.000	-0.000	-0.000*	-0.000	-0.000
	(0.968)	(0.189)	(0.816)	(0.044)	(0.307)	(0.240)
English Language (%)	-0.000	-0.007	0.004	-0.004	-0.000	-0.001
	(0.651)	(0.102)	(0.267)	(0.244)	(0.782)	(0.275)
English Language Squared	0.000	0.000	-0.000	-0.000	-0.000	0.000
	(0.611)	(0.382)	(0.412)	(0.894)	(0.812)	(0.242)
Female (%)	-0.005	-0.068	-0.029	-0.045*	-0.006+	0.006
	(0.172)	(0.306)	(0.139)	(0.027)	(0.098)	(0.125)
Female Squared	0.000	0.001	0.000	0.000+	0.000	-0.000+
	(0.237)	(0.314)	(0.164)	(0.051)	(0.165)	(0.096)
SWD (%)	-0.001	0.007	0.001	0.012+	0.000	0.004
	(0.142)	(0.337)	(0.745)	(0.093)	(0.873)	(0.150)
SWD Squared	0.000	-0.000	-0.000	-0.000	-0.000	-0.000
	(0.913)	(0.269)	(0.359)	(0.359)	(0.327)	(0.280)
White (%)	0.000	0.002	-0.001	-0.004*	-0.000	0.000
TITLE OF T	(0.326)	(0.166)	(0.348)	(0.031)	(0.743)	(0.761)
White Squared	-0.000	-0.000*	0.000	0.000	0.000	0.000
	(0.111)	(0.044)	(0.447)	(0.138)	(0.639)	(0.476)
R-Squared	0.1313	0.0483	0.1520	0.3166	0.0808	0.1130
N	2875	2875	2875	2875	2875	2875

Table 14: School Sector and Climate Problems

	Tobacco or	Cyber	Academic	School Code
	Vaping	Harassment	Dishonesty	of Conduct
Regular Charter	-0.159+	0.030+	0.091	3.400*
	(0.052)	(0.073)	(0.303)	(0.042)
Cyber Charter	-0.770***	-0.020	0.178	-13.613***
,	(0.000)	(0.167)	(0.347)	(0.001)
Enrollment (100s)	0.021+	-0.000	0.004	0.391***
,	(0.065)	(0.840)	(0.670)	(0.000)
Enrollment Squared	-0.000*	0.000	-0.000	-0.004*
1 1	(0.041)	(0.530)	(0.473)	(0.010)
Low Income (%)	0.011*	0.001+	-0.019	-0.051
Zew meemie (70)	(0.010)	(0.052)	(0.163)	(0.430)
Low Income Squared	-0.000*	-0.000	0.000	0.002*
Zow meonie squared	(0.043)	(0.139)	(0.216)	(0.024)
English Language (%)	-0.016*	-0.001	0.047	0.042
8=	(0.043)	(0.172)	(0.137)	(0.763)
English Language Squared	0.000+	0.000	-0.001	-0.005
	(0.099)	(0.199)	(0.126)	(0.195)
Female (%)	0.033	-0.000	0.006	0.438
()	(0.241)	(0.858)	(0.759)	(0.270)
Female Squared	-0.000+	0.000	-0.000	-0.005
1	(0.098)	(0.716)	(0.615)	(0.195)
SWD (%)	0.046**	0.002+	0.029	0.667*
,	(0.004)	(0.051)	(0.220)	(0.010)
SWD Squared	-0.001*	-0.000+	-0.001	-0.008
*	(0.020)	(0.081)	(0.203)	(0.155)
White (%)	-0.005	0.000	0.021	-0.068
	(0.274)	(0.394)	(0.105)	(0.486)
White Squared	0.000***	-0.000	-0.000*	0.000
•	(0.000)	(0.286)	(0.040)	(0.970)
R-Squared	0.3990	0.0441	0.0891	0.2394
N	2875	2875	2875	2875

Table 15: School Sector and Climate Problems (Heterogeneous Effects)

	Misconduct Academic	Other Misconduct	Offender Academic	Offender Other	Law Enforcement	Total Arrests
	Code of		Code of	Misconduct	Involved	
	Conduct		Conduct			
Regular Charter	4.097*	-8.123***	3.013**	-6.599***	-1.061***	-0.058
(Philadelphia County)	(0.028)	(0.000)	(0.002)	(0.000)	(0.000)	(0.161)
Regular Charter	2.576	0.648	1.415	0.719	-0.208	-0.146*
(Other County)	(0.381)	(0.630)	(0.234)	(0.469)	(0.234)	(0.022)
Difference	-1.520	8.771***	-1.598	7.318***	0.853***	-0.088
Billorence	(0.649)	(0.000)	(0.274)	(0.000)	(0.000)	(0.195)
Regular Charter	-7.236***	-5.948***	-3.216***	-4.863***	-1.392***	-0.314***
(High School)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Regular Charter	5.362**	-4.365***	3.349***	-3.449***	-0.600***	-0.055
(Other School Level)	(0.004)	(0.000)	(0.000)	(0.000)	(0.000)	(0.196)
Difference	12.598***	1.583	6.565***	1.414	0.792*	0.259***
	(0.000)	(0.285)	(0.000)	(0.309)	(0.015)	(0.001)
N	2875	2875	2875	2875	2875	2875

Notes: P-values in parentheses. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. Average marginal effects are reported. Each observation is weighted by student enrollment. Each model includes all control variables. Each dependent variable is divided by student enrollment (in 100s). The first "Difference" is the coefficient for "Philadelphia County" subtracted from the coefficient for "Other County." The second "Difference" is the coefficient for "High School" subtracted from the coefficient for "Other School Level."

Table 16: School Sector and Climate Problems (Heterogeneous Effects)

	Assigned to	Student	Student	Staff	Staff	Racial
	Alternative	Aggravated	Simple	Aggravated	Simple	Harassment
Regular Charter	-0.659***	-0.234***	-0.220*	-0.105***	-1.233***	0.008
(Philadelphia County)	(0.000)	(0.000)	(0.016)	(0.000)	(0.000)	(0.337)
Regular Charter	0.080	-0.063*	0.230	-0.020	0.014	0.003
(Other County)	(0.253)	(0.030)	(0.414)	(0.408)	(0.888)	(0.856)
Difference	0.739***	0.171***	0.450+	0.085***	1.247***	-0.005
	(0.000)	(0.000)	(0.098)	(0.001)	(0.000)	(0.793)
Regular Charter	-0.568***	-0.127*	-0.056	-0.089***	-0.583***	-0.008
(High School)	(0.000)	(0.011)	(0.770)	(0.000)	(0.000)	(0.443)
Regular Charter	-0.326***	-0.172***	-0.036	-0.068***	-0.758***	0.008
(Other School Level)	(0.000)	(0.000)	(0.815)	(0.000)	(0.000)	(0.173)
Difference	0.242	-0.045	0.020	0.022	-0.174	0.017
	(0.134)	(0.399)	(0.929)	(0.335)	(0.270)	(0.143)
N	2875	2875	2875	2875	2875	2875

Notes: P-values in parentheses. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. Average marginal effects are reported. Each observation is weighted by student enrollment. Each model includes all control variables. Each dependent variable is divided by student enrollment (in 100s). The first "Difference" is the coefficient for "Philadelphia County" subtracted from the coefficient for "Other County." The second "Difference" is the coefficient for "High School" subtracted from the coefficient for "Other School Level."

Table 17: School Sector and Climate Problems (Heterogeneous Effects)

	Other Harassment	Fighting	Minor Altercation	Rape	Involuntary Sexual	Statutory Sexual Assault
Regular Charter	-0.940***	-1.707***	-0.198	-0.002	-0.006*	-0.000
(Philadelphia County)	(0.000)	(0.000)	(0.414)	(0.105)	(0.012)	(0.321)
Regular Charter	0.009	0.091	0.344	0.002*	-0.003+	-0.000
(Other County)	(0.920)	(0.814)	(0.465)	(0.029)	(0.084)	(0.370)
Difference	0.949***	1.798***	0.542	0.004*	0.003	0.000
	(0.000)	(0.000)	(0.265)	(0.046)	(0.235)	(0.709)
Regular Charter	-0.632***	-0.766+	-0.156	-0.002	-0.005*	-0.000
(High School)	(0.000)	(0.062)	(0.576)	(0.145)	(0.043)	(0.319)
Regular Charter	-0.546***	-1.024***	0.050	-0.000	-0.005**	-0.000
(Other School Level)	(0.000)	(0.000)	(0.858)	(0.770)	(0.004)	(0.324)
Difference	0.086	-0.258	0.206	0.002	0.001	0.000
	(0.552)	(0.535)	(0.461)	(0.175)	(0.745)	(0.349)
N	2875	2875	2875	2875	2875	2875

Table 18: School Sector and Climate Problems (Heterogeneous Effects)

	Sexual Assault	Aggravated Indecent Assault	Indecent Assault	Indecent Exposure	Open Lewdness	Obscene Materials and Acts
Regular Charter	0.002	0.001	-0.034***	-0.012*	-0.004	-0.168***
(Philadelphia County)	(0.842)	(0.498)	(0.000)	(0.044)	(0.316)	(0.000)
Regular Charter	0.009	-0.001	-0.002	0.003	-0.014*	0.076+
(Other County)	(0.252)	(0.222)	(0.704)	(0.690)	(0.018)	(0.093)
Difference	0.008	-0.002	0.032***	0.015	-0.011+	0.244**
	(0.403)	(0.175)	(0.000)	(0.117)	(0.091)	(0.001)
Regular Charter	0.014	-0.001	-0.029***	-0.008+	-0.009*	-0.147***
(High School)	(0.294)	(0.695)	(0.000)	(0.079)	(0.022)	(0.000)
Regular Charter	0.003	0.000	-0.020***	-0.005	-0.008+	-0.057*
(Other School Level)	(0.667)	(0.920)	(0.000)	(0.349)	(0.052)	(0.015)
Difference	-0.011	0.001	0.009+	0.003	0.002	0.090*
	(0.448)	(0.568)	(0.095)	(0.605)	(0.702)	(0.022)
N	2875	2875	2875	2875	2875	2875

Table 19: School Sector and Climate Problems (Heterogeneous Effects)

	Sexual Harassment	Stalking	Kidnapping	Unlawful Restraint	Threat Official or Student	Reckless Endanger
Regular Charter	0.038*	0.000	-0.007**	0.001	-0.700***	-1.219***
(Philadelphia County)	(0.031)	(0.984)	(0.007)	(0.638)	(0.000)	(0.000)
Regular Charter	0.032	0.000	-0.001	0.006	-0.045	0.131
(Other County)	(0.313)	(0.751)	(0.259)	(0.169)	(0.703)	(0.151)
Difference	-0.006	0.000	0.006**	0.005	0.656***	1.350***
	(0.838)	(0.866)	(0.007)	(0.134)	(0.000)	(0.000)
Regular Charter	0.014	0.000	-0.003*	0.001	-0.438**	-0.741***
(High School)	(0.682)	(0.809)	(0.023)	(0.356)	(0.006)	(0.000)
Regular Charter	0.039+	0.000	-0.005*	0.003	-0.437***	-0.665***
(Other School Level)	(0.067)	(0.953)	(0.017)	(0.243)	(0.000)	(0.000)
Difference	0.025	-0.000	-0.002	0.002	0.001	0.076
	(0.519)	(0.875)	(0.336)	(0.278)	(0.997)	(0.653)
N	2875	2875	2875	2875	2875	2875

Table 20: School Sector and Climate Problems (Heterogeneous Effects)

	Robbery	Theft	Bullying	Suicide Attempt	Rioting	Bomb Threat
Regular Charter	-0.028***	-0.070**	-0.013	-0.050***	0.001	-0.002
(Philadelphia County)	(0.000)	(0.004)	(0.751)	(0.000)	(0.840)	(0.840)
Regular Charter	0.003	0.079	0.069	0.009	-0.037**	-0.004
(Other County)	(0.625)	(0.353)	(0.542)	(0.151)	(0.007)	(0.518)
Difference	0.032***	0.149	0.081	0.059***	-0.039**	-0.002
	(0.000)	(0.109)	(0.421)	(0.000)	(0.002)	(0.796)
Regular Charter	-0.022**	-0.135***	-0.019	-0.032***	-0.026	0.028
(High School)	(0.004)	(0.000)	(0.698)	(0.000)	(0.133)	(0.506)
Regular Charter	-0.015**	0.012	0.027	-0.025***	-0.012	-0.008**
(Other School Level)	(0.001)	(0.763)	(0.691)	(0.000)	(0.176)	(0.007)
Difference	0.007	0.146***	0.046	0.006	0.014	-0.036
	(0.350)	(0.000)	(0.507)	(0.389)	(0.414)	(0.395)
N	2875	2875	2875	2875	2875	2875

Table 21: School Sector and Climate Problems (Heterogeneous Effects)

	Terror Threats	Failure to Disperse	Disorderly Conduct	Handgun	Rifle or Shotgun	Other Firearm
Regular Charter	0.016	-0.013	-0.411**	0.005	0.000	-0.013**
(Philadelphia County)	(0.179)	(0.751)	(0.006)	(0.209)	(0.558)	(0.004)
Regular Charter	-0.014	0.069	-0.240	0.001	-0.001	0.005
(Other County)	(0.473)	(0.542)	(0.556)	(0.597)	(0.279)	(0.467)
Difference	-0.030	0.081	0.170	-0.004	-0.001	0.018**
	(0.111)	(0.421)	(0.679)	(0.261)	(0.278)	(0.006)
Regular Charter	0.022	-0.019	-0.517**	0.018	-0.001+	-0.009**
(High School)	(0.613)	(0.698)	(0.010)	(0.393)	(0.075)	(0.002)
Regular Charter	0.001	0.027	-0.312	0.001	0.001	-0.005
(Other School Level)	(0.940)	(0.691)	(0.155)	(0.661)	(0.661)	(0.367)
Difference	-0.021	0.046	0.205	-0.017	0.001+	0.004
	(0.631)	(0.507)	(0.393)	(0.446)	(0.081)	(0.424)
N	2875	2875	2875	2875	2875	2875

Table 22: School Sector and Climate Problems (Heterogeneous Effects)

	Knife Possession	Cutting Instrument	Explosive	Pellet Gun	Other Weapon	Burglary
Regular Charter	-0.019	-0.047***	-0.041***	0.006	-0.068***	-0.010**
(Philadelphia County)	(0.245)	(0.000)	(0.000)	(0.103)	(0.000)	(0.003)
Regular Charter	-0.025	-0.012	0.004	-0.000	-0.001	-0.008*
(Other County)	(0.256)	(0.317)	(0.330)	(0.932)	(0.953)	(0.010)
Difference	-0.006	0.035*	0.045***	-0.007	0.067*	0.001
	(0.806)	(0.022)	(0.000)	(0.129)	(0.014)	(0.723)
Regular Charter	0.018	-0.059***	-0.037***	0.010	0.041	-0.009*
(High School)	(0.716)	(0.000)	(0.000)	(0.325)	(0.538)	(0.016)
Regular Charter	-0.028*	-0.028**	-0.020***	0.003	-0.056***	-0.009**
(Other School Level)	(0.024)	(0.007)	(0.000)	(0.469)	(0.000)	(0.002)
Difference	-0.046	0.031+	0.017+	-0.007	-0.097	-0.000
	(0.349)	(0.081)	(0.063)	(0.491)	(0.146)	(0.919)
N	2875	2875	2875	2875	2875	2875

Table 23: School Sector and Climate Problems (Heterogeneous Effects)

	Arson	Vandalism	Criminal Trespass	Possess Controlled Substance	Distribute Controlled Substance	Alcohol
Regular Charter	-0.043***	-0.213***	-0.091**	-0.112*	-0.002	-0.010
(Philadelphia County)	(0.000)	(0.000)	(0.008)	(0.027)	(0.723)	(0.273)
Regular Charter	0.013+	-0.041	0.030	0.048	0.001	-0.025*
(Other County)	(0.057)	(0.429)	(0.474)	(0.446)	(0.891)	(0.013)
Difference	0.055***	0.172*	0.120+	0.159*	0.003	-0.015
	(0.000)	(0.012)	(0.088)	(0.025)	(0.718)	(0.190)
Regular Charter	-0.036***	-0.202***	-0.086*	-0.236	-0.009	-0.078***
(High School)	(0.000)	(0.001)	(0.048)	(0.118)	(0.604)	(0.000)
Regular Charter	-0.018**	-0.133**	-0.035**	-0.015	0.000	-0.005
(Other School Level)	(0.005)	(0.001)	(0.007)	(0.701)	(0.963)	(0.468)
Difference	0.018*	0.069	0.051	0.221	0.009	0.072***
	(0.017)	(0.240)	(0.236)	(0.145)	(0.595)	(0.000)
N	2875	2875	2875	2875	2875	2875

Table 24: School Sector and Climate Problems (Heterogeneous Effects)

	Tobacco or	Cyber	Academic	School Code
	Vaping	Harassment	Dishonesty	of Conduct
Regular Charter	-0.196+	0.002	0.137 +	3.985*
(Philadelphia County)	(0.053)	(0.811)	(0.098)	(0.032)
Regular Charter	-0.105	0.073*	0.021	2.528
(Other County)	(0.300)	(0.030)	(0.880)	(0.387)
Difference	0.091	0.071*	-0.116	-1.457
	(0.458)	(0.021)	(0.398)	(0.662)
Regular Charter	-1.007***	0.107	-0.006	-7.291***
(High School)	(0.000)	(0.190)	(0.953)	(0.000)
Regular Charter	-0.011	0.017+	0.108	5.271**
(Other School Level)	(0.881)	(0.100)	(0.254)	(0.004)
Difference	0.996***	-0.091	0.114	12.561***
	(0.000)	(0.252)	(0.292)	(0.000)
N	2875	2875	2875	2875

Discussion

After controlling for several differences in students between sectors, this study finds that public charter schools generally report fewer school climate problems than district-run public schools in Pennsylvania. These charter school sector advantages are generally more pronounced for cyber charter schools than for brick-and-mortar charter schools. The charter school sector advantages are also generally more pronounced for charter high schools than for schools serving students in other grades and for charter schools located in Philadelphia County than for charter schools located in other counties.

The public charter school sector advantages suggest that increasing access to public charter schools in Pennsylvania could improve school climate outcomes for students. In Pennsylvania, brick-and-mortar public charter schools must be authorized by local school districts and cyber charter schools must be authorized by the State Department of Education. Pennsylvania could increase access to public charter schools by allowing additional authorizing entities such as colleges, universities, mayors, and the state.

Pennsylvania could also expand access to public charter schools by equalizing per pupil funding between sectors. Batdorff et al. (2014) found that public charter schools received around 32% less funding per pupil than district-run public schools in Pennsylvania in the 2010-11 school year. Data from the Pennsylvania Department of Education similarly show that public charter schools spent around 27% less per pupil than district-run public schools in the state in the 2017-18 school year. Pequalizing per pupil funding between school sectors would provide public charter schools in the state with stronger financial incentives to serve additional students by

¹⁹ AFR Data: Summary-Level. Expenditure Data 2017-2018. Pennsylvania Department of Education. Retrieved from https://www.education.pa.gov/Teachers%20-

^{% 20} Administrators/School % 20 Finances/Finances/AFR% 20 Data% 20 Summary/Pages/AFR-Data-Summary-Level.aspx #. VZvrX2XD-Uk

expanding. Pennsylvania Governor Tom Wolf called to further increase funding inequities between sectors by decreasing funding for public charter schools in 2019.²⁰ This proposal could reduce access to public charter schools by reducing the financial incentives for public charter schools to serve additional students.

Governor Wolf's proposal further limits access to public charter schools by calling for a moratorium on all new cyber charter schools. The proposal would also allow public school districts to limit enrollment at public charter schools. Although Governor Wolf's proposal calls to limit enrollment at "underperforming" public charter schools, the proposal does not apply the same standard to district-run public schools. In addition, the state's assessments mostly reflect performance on standardized tests and do not account for differences in student populations across schools. In other words, under the state's existing school assessment system, Governor Wolf's proposal could limit enrollment growth at public charter schools that serve the least advantaged students in the state. The proposal could also limit enrollment growth at public charter schools that improve outcomes that are not captured by standardized test scores such as character education, social emotional learning, and climate.

This study has important limitations. Although the analytic models control for several observable differences in students between sectors, the results are descriptive rather than causal. Students in public charter schools may differ from students in district-run public schools on unobserved characteristics such as family structure, parental education levels, and motivation. Although the observable characteristics included in this study suggest that students in public charter schools are generally less-advantaged than their peers in district-run public schools in

²⁰ Gov. Wolf Stresses Need for Stronger Charter School Accountability. Governor Tom Wolf. Retrieved from https://www.governor.pa.gov/newsroom/gov-wolf-stresses-need-for-stronger-charter-school-accountability/
²¹ Future Ready PA Index. Pennsylvania Department of Education. Retrieved from https://futurereadypa.org/

Pennsylvania, the direction of any remaining selection bias in unclear. In addition, although all public schools are required to report school climate problems each year, it is possible that reporting of these incidents systematically differs between sectors. Future research on the specific mechanisms allowing public charter schools to potentially reduce school climate problems would be especially welcome.

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Appendix

Table A1: School Sector and Climate Problems

	Misconduct Academic or Code of Conduct	All Other Misconduct	Offender Academic or Code of Conduct	Offender Other Misconduct	Law Enforcement Involved	Total Arrests
Regular Charter	7.121***	-3.317***	3.915***	-2.404**	-0.757***	-0.134***
	(0.000)	(0.001)	(0.000)	(0.005)	(0.000)	(0.000)
Add Enrollment	6.962***	-3.301***	3.862***	-2.398**	-0.766***	-0.136***
	(0.000)	(0.001)	(0.000)	(0.004)	(0.000)	(0.000)
Add Income	4.549**	-4.631***	2.989***	-3.504***	-0.868***	-0.181***
	(0.003)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Add English	4.355**	-4.823***	2.861***	-3.560***	-0.916***	-0.194***
	(0.004)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Add Gender	4.478**	-4.176***	2.982***	-3.042***	-0.805***	-0.165***
	(0.004)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Add Disability	3.967*	-4.175***	2.772***	-3.103***	-0.816***	-0.153***
	(0.013)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Add White	3.486*	-4.601***	2.371**	-3.660***	-0.718***	-0.094*
	(0.038)	(0.000)	(0.003)	(0.000)	(0.000)	(0.019)
N	2875	2875	2875	2875	2875	2875

Notes: P-values in parentheses. + p < 0.10, *p < 0.05, ** p < 0.01, *** p < 0.001. Average marginal effects are reported. Each observation is weighted by student enrollment. Each dependent variable is divided by student enrollment (in 100s). Each coefficient is for "regular charter." The model in the first row only includes school sector and grade and county fixed effects. The model in the second row adds enrollment and its squared term. The model in the third row adds low-income percentage and its squared term. The model in the fourth row adds English Language Learner percentage and its squared term. The model in the sixth row adds Students with Disabilities percentage and its squared term. The final model in the seventh row adds White percentage and its squared term.

Table A2: School Sector and Climate Problems

	Assigned to Alternative	Student Aggravated	Student Simple	Staff Aggravated	Staff Simple	Racial Harassment
Regular Charter	-0.415*** (0.000)	-0.146*** (0.000)	0.081 (0.531)	-0.058*** (0.000)	-0.738*** (0.000)	0.005 (0.220)
Add Enrollment	-0.411*** (0.000)	-0.411*** (0.000)	0.079 (0.535)	-0.057*** (0.000)	-0.736*** (0.000)	0.006 (0.222)
Add Income	-0.462***	-0.462***	-0.011	-0.075***	-0.808***	0.007
Add English	(0.000) -0.439***	(0.000) -0.439***	0.003	(0.000) -0.081***	(0.000) -0.816***	(0.139) 0.007
Add Gender	(0.000)	(0.000) -0.367***	(0.979) 0.056	(0.000) -0.066***	(0.000) -0.757***	(0.166) 0.006
	(0.000)	(0.000)	(0.658)	(0.000)	(0.000)	(0.211)
Add Disability	-0.340*** (0.000)	-0.340*** (0.000)	0.035 (0.786)	-0.065*** (0.000)	-0.753*** (0.000)	0.007 (0.231)
Add White	-0.362*** (0.000)	-0.166*** (0.000)	-0.039 (0.777)	-0.071*** (0.000)	-0.732*** (0.000)	0.006 (0.310)
N	2875	2875	2875	2875	2875	2875

Notes: P-values in parentheses. + p < 0.10, * p < 0.05, *** p < 0.01, **** p < 0.001. Average marginal effects are reported. Each observation is weighted by student enrollment. Each dependent variable is divided by student enrollment (in 100s). Each coefficient is for "regular charter." The model in the first row only includes school sector and grade and county fixed effects. The model in the second row adds enrollment and its squared term. The model in the third row adds low-income percentage and its squared term. The model in the fifth row adds English Language Learner percentage and its squared term. The model in the sixth row adds Students with Disabilities percentage and its squared term. The final model in the seventh row adds White percentage and its squared term.

Table A3: School Sector and Climate Problems

	Other Harassment	Fighting	Minor Altercation	Rape	Involuntary Sexual	Statutory Sexual Assault
Regular Charter	-0.571***	-0.510+	0.196	-0.001+	-0.003**	-0.000
	(0.000)	(0.091)	(0.379)	(0.055)	(0.002)	(0.363)
Add Enrollment	-0.571***	-0.503+	0.207	-0.001*	-0.003**	-0.000
	(0.000)	(0.077)	(0.358)	(0.048)	(0.003)	(0.361)
Add Income	-0.633***	-0.856***	-0.032	-0.001+	-0.004**	-0.000
	(0.000)	(0.000)	(0.887)	(0.050)	(0.001)	(0.358)
Add English	-0.584***	-0.854***	-0.120	-0.001	-0.005***	-0.000
	(0.000)	(0.000)	(0.629)	(0.200)	(0.001)	(0.329)
Add Gender	-0.528***	-0.748**	-0.064	-0.000	-0.005**	-0.000
	(0.000)	(0.001)	(0.814)	(0.312)	(0.001)	(0.325)
Add Disability	-0.511***	-0.756**	-0.067	-0.000	-0.005**	-0.000
	(0.000)	(0.001)	(0.812)	(0.347)	(0.003)	(0.322)
Add White	-0.559***	-0.985***	0.020	-0.000	-0.005**	-0.000
	(0.000)	(0.000)	(0.941)	(0.448)	(0.003)	(0.320)
N	2875	2875	2875	2875	2875	2875

Notes: P-values in parentheses. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. Average marginal effects are reported. Each observation is weighted by student enrollment. Each dependent variable is divided by student enrollment (in 100s). Each coefficient is for "regular charter." The model in the first row only includes school sector and grade and county fixed effects. The model in the second row adds enrollment and its squared term. The model in the third row adds low-income percentage and its squared term. The model in the fourth row adds English Language Learner percentage and its squared term. The model in the fifth row adds female percentage and its squared term. The model in the sixth row adds Students with Disabilities percentage and its squared term. The final model in the seventh row adds White percentage and its squared term.

Table A4: School Sector and Climate Problems

	Sexual	Aggravated	Indecent	Indecent	Open	Obscene
	Assault	Indecent	Assault	Exposure	Lewdness	Materials
		Assault				and Acts
Regular Charter	0.003	-0.001+	-0.020***	-0.004	-0.004	-0.071*
	(0.576)	(0.082)	(0.000)	(0.392)	(0.127)	(0.025)
Add Enrollment	0.003	-0.001+	-0.020***	-0.004	-0.003	-0.072*
	(0.586)	(0.080)	(0.000)	(0.371)	(0.134)	(0.025)
Add Income	0.003	-0.001+	-0.021***	-0.007	-0.005*	-0.077*
	(0.658)	(0.073)	(0.000)	(0.123)	(0.030)	(0.012)
Add English	0.003	-0.001	-0.021***	-0.009+	-0.006*	-0.069**
&	(0.690)	(0.106)	(0.000)	(0.060)	(0.014)	(0.006)
Add Gender	0.004	0.000	-0.019***	-0.007	-0.006*	-0.066*
	(0.526)	(0.954)	(0.000)	(0.197)	(0.046)	(0.011)
Add Disability	0.003	0.000	-0.019***	-0.007	-0.007*	-0.063*
	(0.594)	(0.754)	(0.000)	(0.238)	(0.045)	(0.014)
Add White	0.005	0.000	-0.021***	-0.006	-0.008*	-0.070**
	(0.468)	(0.994)	(0.000)	(0.271)	(0.030)	(0.003)
N	2875	2875	2875	2875	2875	2875

Notes: P-values in parentheses. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. Average marginal effects are reported. Each observation is weighted by student enrollment. Each dependent variable is divided by student enrollment (in 100s). Each coefficient is for "regular charter." The model in the first row only includes school sector and grade and county fixed effects. The model in the second row adds enrollment and its squared term. The model in the third row adds low-income percentage and its squared term. The model in the fourth row adds English Language Learner percentage and its squared term. The model in the sixth row adds Students with Disabilities percentage and its squared term. The final model in the seventh row adds White percentage and its squared term.

Table A5: School Sector and Climate Problems

	Sexual Harassment	Stalking	Kidnapping	Unlawful Restraint	Threat Official or Student	Reckless Endanger
Regular Charter	0.055**	-0.000	-0.005**	0.002	-0.398***	-0.732***
	(0.002)	(0.800)	(0.009)	(0.238)	(0.000)	(0.000)
Add Enrollment	0.055**	-0.000	-0.005**	0.002	-0.395***	-0.727***
	(0.002)	(0.694)	(0.008)	(0.238)	(0.000)	(0.000)
Add Income	0.039*	-0.000	-0.005**	0.002	-0.520***	-0.770***
	(0.025)	(0.445)	(0.008)	(0.233)	(0.000)	(0.000)
Add English	0.042*	-0.000	-0.005*	0.002	-0.515***	-0.805***
	(0.019)	(0.278)	(0.011)	(0.238)	(0.000)	(0.000)
Add Gender	0.047*	-0.000	-0.005**	0.002	-0.474***	-0.713***
	(0.012)	(0.241)	(0.009)	(0.235)	(0.000)	(0.000)
Add Disability	0.044*	-0.000	-0.005**	0.002	-0.464***	-0.681***
	(0.017)	(0.246)	(0.010)	(0.234)	(0.000)	(0.000)
Add White	0.036+	0.000	-0.005*	0.003	-0.437***	-0.677***
	(0.065)	(0.867)	(0.013)	(0.242)	(0.000)	(0.000)
N	2875	2875	2875	2875	2875	2875

Notes: P-values in parentheses. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. Average marginal effects are reported. Each observation is weighted by student enrollment. Each dependent variable is divided by student enrollment (in 100s). Each coefficient is for "regular charter." The model in the first row only includes school sector and grade and county fixed effects. The model in the second row adds enrollment and its squared term. The model in the third row adds low-income percentage and its squared term. The model in the fourth row adds English Language Learner percentage and its squared term. The model in the fifth row adds female percentage and its squared term. The model in the sixth row adds Students with Disabilities percentage and its squared term. The final model in the seventh row adds White percentage and its squared term.

Table A6: School Sector and Climate Problems

	Robbery	Theft	Bullying	Suicide Attempt	Rioting	Bomb Threat
Regular Charter	-0.019***	0.025	0.069	-0.028***	-0.010**	-0.003
	(0.000)	(0.610)	(0.206)	(0.000)	(0.010)	(0.588)
Add Enrollment	-0.019***	0.025	0.068	-0.028***	-0.010*	-0.003
	(0.000)	(0.582)	(0.210)	(0.000)	(0.022)	(0.625)
Add Income	-0.019***	0.008	0.029	-0.029***	-0.020**	-0.005
	(0.000)	(0.852)	(0.589)	(0.000)	(0.004)	(0.475)
Add English	-0.018***	-0.009	0.042	-0.029***	-0.026**	-0.006
	(0.000)	(0.806)	(0.406)	(0.000)	(0.009)	(0.341)
Add Gender	-0.014***	-0.006	0.041	-0.027***	-0.025*	-0.004
	(0.000)	(0.883)	(0.407)	(0.000)	(0.016)	(0.539)
Add Disability	-0.016***	-0.007	0.032	-0.027***	-0.022*	-0.003
	(0.000)	(0.865)	(0.560)	(0.000)	(0.031)	(0.696)
Add White	-0.016***	-0.010	0.020	-0.026***	-0.014+	-0.003
	(0.000)	(0.778)	(0.740)	(0.000)	(0.097)	(0.716)
N	2875	2875	2875	2875	2875	2875

Notes: P-values in parentheses. + p < 0.10, * p < 0.05, *** p < 0.01, **** p < 0.001. Average marginal effects are reported. Each observation is weighted by student enrollment. Each dependent variable is divided by student enrollment (in 100s). Each coefficient is for "regular charter." The model in the first row only includes school sector and grade and county fixed effects. The model in the second row adds enrollment and its squared term. The model in the third row adds low-income percentage and its squared term. The model in the fifth row adds English Language Learner percentage and its squared term. The model in the sixth row adds Students with Disabilities percentage and its squared term. The final model in the seventh row adds White percentage and its squared term.

Table A7: School Sector and Climate Problems

	Terror Threats	Failure to Disperse	Disorderly Conduct	Handgun	Rifle or Shotgun	Other Firearm
Regular Charter	0.013	0.069	0.014	0.004	-0.000	-0.005
	(0.194)	(0.206)	(0.931)	(0.282)	(0.655)	(0.253)
Add Enrollment	0.013	0.068	0.010	0.004	-0.000	-0.005
	(0.195)	(0.210)	(0.951)	(0.279)	(0.703)	(0.265)
Add Income	0.005	0.029	-0.172	0.003	-0.000	-0.005
	(0.652)	(0.589)	(0.259)	(0.350)	(0.743)	(0.227)
Add English	-0.005	0.042	-0.143	0.003	-0.000	-0.006
	(0.693)	(0.406)	(0.358)	(0.299)	(0.793)	(0.207)
Add Gender	-0.002	0.041	-0.131	0.004	-0.000	-0.006
	(0.847)	(0.407)	(0.400)	(0.240)	(0.388)	(0.161)
Add Disability	-0.002	0.032	-0.163	0.004	-0.000	-0.006
	(0.865)	(0.560)	(0.319)	(0.222)	(0.663)	(0.165)
Add White	0.004	0.020	-0.342+	0.004	-0.000	-0.005
	(0.748)	(0.740)	(0.085)	(0.226)	(0.415)	(0.243)
N	2875	2875	2875	2875	2875	2875

Notes: P-values in parentheses. + p < 0.10, * p < 0.05, *** p < 0.01, **** p < 0.001. Average marginal effects are reported. Each observation is weighted by student enrollment. Each dependent variable is divided by student enrollment (in 100s). Each coefficient is for "regular charter." The model in the first row only includes school sector and grade and county fixed effects. The model in the second row adds enrollment and its squared term. The model in the third row adds low-income percentage and its squared term. The model in the fourth row adds English Language Learner percentage and its squared term. The model in the sixth row adds Students with Disabilities percentage and its squared term. The final model in the seventh row adds White percentage and its squared term.

Table A8 School Sector and Climate Problems

	Knife Possession	Cutting Instrument	Explosive	Pellet Gun	Other Weapon	Burglary
Regular Charter	-0.022+	-0.022*	-0.027***	0.003	-0.026+	-0.005**
	(0.091)	(0.018)	(0.000)	(0.389)	(0.093)	(0.003)
Add Enrollment	-0.023+	-0.022*	-0.027***	0.003	-0.025+	-0.005**
	(0.087)	(0.017)	(0.000)	(0.399)	(0.099)	(0.004)
Add Income	-0.033*	-0.029**	-0.028***	0.001	-0.034*	-0.007**
1144 1110 01110	(0.014)	(0.003)	(0.000)	(0.819)	(0.026)	(0.001)
Add English	-0.031*	-0.027**	-0.029***	0.001	-0.037*	-0.009***
8	(0.023)	(0.007)	(0.000)	(0.857)	(0.018)	(0.001)
Add Gender	-0.021	-0.025*	-0.025***	0.002	-0.032*	-0.009**
	(0.121)	(0.016)	(0.000)	(0.556)	(0.040)	(0.001)
Add Disability	-0.018	-0.031***	-0.023***	0.003	-0.032*	-0.009**
	(0.162)	(0.001)	(0.000)	(0.444)	(0.042)	(0.001)
Add White	-0.021	-0.033***	-0.023***	0.004	-0.041*	-0.009***
	(0.120)	(0.001)	(0.000)	(0.306)	(0.012)	(0.001)
N	2875	2875	2875	2875	2875	2875

Notes: P-values in parentheses. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. Average marginal effects are reported. Each observation is weighted by student enrollment. Each dependent variable is divided by student enrollment (in 100s). Each coefficient is for "regular charter." The model in the first row only includes school sector and grade and county fixed effects. The model in the second row adds enrollment and its squared term. The model in the third row adds low-income percentage and its squared term. The model in the fourth row adds English Language Learner percentage and its squared term. The model in the fifth row adds female percentage and its squared term. The model in the sixth row adds Students with Disabilities percentage and its squared term. The final model in the seventh row adds White percentage and its squared term.

Table A9: School Sector and Climate Problems

	Arson	Vandalism	Criminal Trespass	Possess Controlled Substance	Distribute Controlled Substance	Alcohol
Regular Charter	-0.024***	-0.129***	-0.063*	0.008	-0.006	-0.015*
	(0.000)	(0.000)	(0.019)	(0.846)	(0.210)	(0.028)
Add Enrollment	-0.024***	-0.126***	-0.062*	0.006	-0.006	-0.018*
	(0.000)	(0.000)	(0.017)	(0.887)	(0.209)	(0.013)
Add Income	-0.025***	-0.169***	-0.070**	-0.012	-0.005	-0.014*
	(0.000)	(0.000)	(0.004)	(0.779)	(0.248)	(0.050)
Add English	-0.025***	-0.189***	-0.057**	-0.028	-0.006	-0.019*
	(0.000)	(0.000)	(0.001)	(0.498)	(0.221)	(0.014)
Add Gender	-0.023***	-0.164***	-0.040**	-0.007	-0.002	-0.017*
	(0.000)	(0.000)	(0.002)	(0.878)	(0.613)	(0.020)
Add Disability	-0.021***	-0.155***	-0.037**	-0.017	-0.001	-0.019*
	(0.000)	(0.000)	(0.003)	(0.677)	(0.887)	(0.025)
Add White	-0.020***	-0.144***	-0.042**	-0.048	-0.001	-0.016*
	(0.001)	(0.000)	(0.003)	(0.276)	(0.821)	(0.032)
N	2875	2875	2875	2875	2875	2875

Notes: P-values in parentheses. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. Average marginal effects are reported. Each observation is weighted by student enrollment. Each dependent variable is divided by student enrollment (in 100s). Each coefficient is for "regular charter." The model in the first row only includes school sector and grade and county fixed effects. The model in the second row adds enrollment and its squared term. The model in the third row adds low-income percentage and its squared term. The model in the fourth row adds English Language Learner percentage and its squared term. The model in the fifth row adds female percentage and its squared term. The model in the sixth row adds Students with Disabilities percentage and its squared term. The final model in the seventh row adds White percentage and its squared term.

Table A10: School Sector and Climate Problems

	Tobacco or	Cyber	Academic	School Code of
	Vaping	Harassment	Dishonesty	Conduct
Regular Charter	-0.162*	0.029+	-0.015	7.154***
	(0.011)	(0.091)	(0.807)	(0.000)
Add Enrollment	-0.170**	0.030+	-0.020	6.999***
	(0.008)	(0.088)	(0.758)	(0.000)
Add Income	-0.098	0.029+	-0.112	4.669**
	(0.141)	(0.090)	(0.287)	(0.003)
Add English	-0.188**	0.030+	-0.035	4.395**
	(0.007)	(0.099)	(0.650)	(0.003)
Add Gender	-0.159*	0.029	-0.033	4.515**
	(0.029)	(0.108)	(0.661)	(0.003)
Add Disability	-0.162*	0.029	-0.030	4.002*
ý	(0.034)	(0.109)	(0.687)	(0.012)
Add White	-0.159+	0.030+	0.091	3.400*
	(0.052)	(0.073)	(0.303)	(0.042)
N	2875	2875	2875	2875

Notes: P-values in parentheses. + p < 0.10, * p < 0.05, *** p < 0.01, **** p < 0.001. Average marginal effects are reported. Each observation is weighted by student enrollment. Each dependent variable is divided by student enrollment (in 100s). Each coefficient is for "regular charter." The model in the first row only includes school sector and grade and county fixed effects. The model in the second row adds enrollment and its squared term. The model in the third row adds low-income percentage and its squared term. The model in the fifth row adds English Language Learner percentage and its squared term. The model in the sixth row adds Students with Disabilities percentage and its squared term. The final model in the seventh row adds White percentage and its squared term.

Table A11: School Sector and Climate Problems

	Misconduct Academic or Code of Conduct	All Other Misconduct	Offender Academic or Code of Conduct	Offender Other Misconduct	Law Enforcement Involved	Total Arrests
Regular Charter	5.040*	-3.356***	3.867***	-2.609***	-0.724***	-0.162*
	(0.014)	(0.000)	(0.000)	(0.000)	(0.000)	(0.011)
Cyber Charter	-10.908+	-6.606**	-3.786	-5.222**	-6.862**	-0.832***
	(0.075)	(0.003)	(0.118)	(0.002)	(0.005)	(0.000)
Enrollment (100s)	0.261**	0.018	0.080*	0.039	0.032*	0.022***
	(0.003)	(0.717)	(0.014)	(0.276)	(0.013)	(0.000)
Enrollment Squared	-0.002	0.001	-0.001	0.000	0.000	-0.000***
	(0.105)	(0.491)	(0.306)	(0.793)	(0.232)	(0.001)
Low Income (%)	-0.004	0.044+	-0.010	0.051***	0.016***	0.005*
	(0.946)	(0.055)	(0.629)	(0.001)	(0.000)	(0.020)
Low Income Squared	0.001+	0.000	0.000*	0.000	-0.000	0.000
	(0.061)	(0.239)	(0.039)	(0.535)	(0.461)	(0.795)
English Language (%)	-0.046	-0.102	0.027	-0.066	-0.005	-0.003
	(0.630)	(0.125)	(0.448)	(0.128)	(0.631)	(0.319)
English Language Squared	-0.001	0.002	-0.002+	0.001	-0.000	0.000
	(0.814)	(0.319)	(0.079)	(0.352)	(0.680)	(0.853)
Female (%)	0.107	-1.132*	-0.035	-0.821***	-0.119**	-0.042+
	(0.776)	(0.033)	(0.810)	(0.000)	(0.003)	(0.096)
Female Squared	-0.001	0.009+	-0.000	0.006**	0.001**	0.000
SWD (%)	(0.666)	(0.051)	(0.967)	(0.002)	(0.007)	(0.142)
	0.614*	0.158	0.347**	0.091	0.016	0.019
	(0.020)	(0.195)	(0.001)	(0.295)	(0.563)	(0.427)
SWD Squared	-0.008	-0.003	-0.005+	-0.001	-0.000	-0.001
	(0.182)	(0.293)	(0.055)	(0.545)	(0.777)	(0.373)
White (%)	0.100 (0.268)	-0.034 (0.264)	0.003 (0.922)	-0.055** (0.004)	0.011+ (0.058)	0.008*** (0.000)
White Squared	-0.001*	-0.000	-0.000	0.000	-0.000	-0.000***
	(0.047)	(0.979)	(0.342)	(0.220)	(0.134)	(0.001)
N	2875	2875	2875	2875	2875	2875

Notes: P-values in parentheses. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. Average marginal effects are reported after a two-part model using probit in the first part and ordinary least squares regression in the second part. Each observation is weighted by student enrollment. Each model includes grade and county fixed effects. "SWD" is "Students with Disabilities." Each dependent variable is divided by student enrollment (in 100s). Perfect predictors are not dropped from the model.

Table A12: School Sector and Climate Problems

	Assigned to Alternative	Student Aggravated	Student Simple	Staff Aggravated	Staff Simple	Racial Harassment
Regular Charter	-0.219+	-0.070***	-0.028		-0.320***	0.030+
	(0.065)	(0.000)	(0.815)	(.)	(0.000)	(0.050)
Cyber Charter	-0.559***	-0.239***	-1.290***		-0.970***	-0.144***
	(0.000)	(0.000)	(0.000)	(.)	(0.000)	(0.000)
Enrollment (100s)	-0.002	0.001	0.015*		-0.002	0.000
	(0.632)	(0.395)	(0.015)	(.)	(0.668)	(0.675)
Enrollment Squared	-0.000	-0.000	-0.000		0.000	-0.000
	(0.986)	(0.887)	(0.128)	(.)	(0.195)	(0.566)
Low Income (%)	0.002	0.001	0.007**		0.003	0.001
	(0.229)	(0.265)	(0.007)	(.)	(0.127)	(0.240)
Low Income Squared	0.000	0.000	-0.000		0.000	-0.000
	(0.563)	(0.232)	(0.322)	(.)	(0.506)	(0.340)
English Language (%)	-0.002	-0.001	0.002		0.001	0.000
	(0.557)	(0.455)	(0.699)	(.)	(0.730)	(0.968)
English Language Squared	0.000	0.000	-0.000		-0.000	0.000
	(0.447)	(0.957)	(0.419)	(.)	(0.589)	(0.563)
Female (%)	-0.046*	-0.008	-0.072+		-0.058*	0.003
	(0.028)	(0.129)	(0.053)	(.)	(0.026)	(0.834)
Female Squared	0.000+	0.000	0.001+		0.000*	-0.000
	(0.084)	(0.112)	(0.098)	(.)	(0.046)	(0.856)
SWD (%)	0.047*	-0.002	-0.013		-0.048***	0.005
	(0.016)	(0.536)	(0.469)	(.)	(0.000)	(0.177)
SWD Squared	-0.001*	0.000	0.000		0.001***	-0.000
	(0.013)	(0.646)	(0.433)	(.)	(0.000)	(0.217)
White (%)	-0.002	-0.000	-0.006+		0.003	-0.000
	(0.383)	(0.643)	(0.087)	(.)	(0.192)	(0.861)
White Squared	0.000	0.000	0.000		-0.000+	0.000
	(0.312)	(0.638)	(0.315)	(.)	(0.083)	(0.356)
N	2875	2875	2875	2875	2875	2875

Notes: P-values in parentheses. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. Average marginal effects are reported after a two-part model using probit in the first part and ordinary least squares regression in the second part. Each observation is weighted by student enrollment. Each model includes grade and county fixed effects. "SWD" is "Students with Disabilities." Each dependent variable is divided by student enrollment (in 100s). Perfect predictors are not dropped from the model. Standard errors could not be calculated for column four because of concavity issues.

Table A13: School Sector and Climate Problems

	Other Harassment	Fighting	Minor Altercation	Rape	Involuntary Sexual	Statutory Sexual Assault
Regular Charter	-0.348*** (0.000)	-0.526*** (0.001)	-0.018 (0.935)	(.)	(.)	(.)
Cyber Charter	-0.947*** (0.000)	-1.690*** (0.000)	-7.358*** (0.001)	(.)	(.)	(.)
Enrollment (100s)	0.006 (0.273)	0.013 (0.271)	-0.032* (0.047)	(.)	(.)	(.)
Enrollment Squared	-0.000 (0.938)	0.000 (0.774)	0.001** (0.003)	(.)	(.)	(.)
Low Income (%)	0.003 (0.183)	0.012** (0.003)	0.003 (0.736)	(.)	(.)	(.)
Low Income Squared	-0.000 (0.534)	0.000 (0.739)	0.000 (0.355)	(.)	(.)	(.)
English Language (%)	0.008 (0.133)	-0.025* (0.021)	-0.026 (0.163)	(.)	(.)	(.)
English Language Squared	-0.000 (0.233)	0.001+ (0.058)	0.001+ (0.096)	(.)	(.)	(.)
Female (%)	-0.050* (0.011)	-0.101* (0.011)	-0.333 (0.460)	(.)	(.)	(.)
Female Squared	0.000* (0.029)	0.001* (0.038)	0.003 (0.467)	(.)	(.)	(.)
SWD (%)	0.017 (0.311)	0.008 (0.802)	0.003 (0.951)	(.)	(.)	(.)
SWD Squared	-0.001 (0.303)	-0.000 (0.947)	0.000 (0.902)	(.)	(.)	(.)
White (%)	-0.004+ (0.088)	-0.015** (0.003)	0.017 (0.164)	(.)	(.)	(.)
White Squared	0.000 (0.353)	0.000 (0.392)	-0.000 (0.107)	(.)	(.)	(.)
N	2875	2875	2875	2875	2875	2875

Notes: P-values in parentheses. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. Average marginal effects are reported after a two-part model using probit in the first part and ordinary least squares regression in the second part. Each observation is weighted by student enrollment. Each model includes grade and county fixed effects. "SWD" is "Students with Disabilities." Each dependent variable is divided by student enrollment (in 100s). Perfect predictors are not dropped from the model. Standard errors could not be calculated for columns four, five, or six because of concavity issues.

Table A14: School Sector and Climate Problems

	Sexual Assault	Aggravated Indecent Assault	Indecent Assault	Indecent Exposure	Open Lewdness	Obscene Materials and Acts
Regular Charter		-0.006		-0.030+	-0.038+	-0.033
	(.)	(0.351)	(.)	(0.099)	(0.079)	(0.169)
Cyber Charter		0.005		-0.087***	-0.075+	-0.006
	(.)	(0.355)	(.)	(0.000)	(0.061)	(0.907)
Enrollment (100s)		-0.001+		0.000	-0.001	0.002
,	(.)	(0.056)	(.)	(0.741)	(0.416)	(0.394)
Enrollment Squared		0.000+		0.000	0.000	-0.000
1	(.)	(0.099)	(.)	(0.337)	(0.281)	(0.660)
Low Income (%)		-0.000		-0.000	-0.000	0.002+
()	(.)	(0.332)	(.)	(0.934)	(0.837)	(0.060)
Low Income Squared		0.000		0.000	0.000	-0.000
1	(.)	(0.306)	(.)	(0.755)	(0.576)	(0.200)
English Language (%)		-0.000		0.000	0.001	-0.000
	(.)	(0.558)	(.)	(0.973)	(0.530)	(0.977)
English Language Squared		0.000		-0.000	-0.000	0.000
	(.)	(0.545)	(.)	(0.855)	(0.360)	(0.892)
Female (%)		0.000		-0.028	-0.009	-0.003
. ,	(.)	(0.604)	(.)	(0.254)	(0.290)	(0.599)
Female Squared		-0.000		0.000	0.000	0.000
•	(.)	(0.521)	(.)	(0.254)	(0.285)	(0.511)
SWD (%)		0.005		0.005	0.004	0.001
SWD Squared	(.)	(0.347) -0.000	(.)	(0.245) -0.000	(0.417) -0.000	(0.938) -0.000
5 11 D Squared	(.)	(0.346)	(.)	(0.231)	(0.612)	(0.855)
White (%)	(-)	-0.000	(-)	0.000	-0.000	-0.002*
()	(.)	(0.437)	(.)	(0.978)	(0.855)	(0.036)
White Squared	` /	-0.000	· /	-0.000	0.000	0.000*
<u>*</u>	(.)	(0.777)	(.)	(0.867)	(0.564)	(0.022)
N	2875	2875	2875	2875	2875	2875

Notes: P-values in parentheses. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. Average marginal effects are reported after a two-part model using probit in the first part and ordinary least squares regression in the second part. Each observation is weighted by student enrollment. Each model includes grade and county fixed effects. "SWD" is "Students with Disabilities." Each dependent variable is divided by student enrollment (in 100s). Perfect predictors are not dropped from the model. Standard errors could not be calculated for columns one or three because of concavity issues.

Table A15: School Sector and Climate Problems

	Sexual Harassment	Stalking	Kidnapping	Unlawful Restraint	Threat Official or Student	Reckless Endanger
Regular Charter	0.067**				-0.288***	-0.147+
-	(0.001)	(.)	(.)	(.)	(0.000)	(0.078)
Cyber Charter	-0.313***				-0.784**	0.166
	(0.000)	(.)	(.)	(.)	(0.005)	(0.485)
Enrollment (100s)	-0.001				-0.004	0.002
	(0.549)	(.)	(.)	(.)	(0.443)	(0.654)
Enrollment Squared	0.000				0.000	-0.000
•	(0.122)	(.)	(.)	(.)	(0.134)	(0.775)
Low Income (%)	-0.000				0.004	0.008*
	(0.716)	(.)	(.)	(.)	(0.160)	(0.018)
Low Income Squared	0.000				0.000	-0.000
-	(0.217)	(.)	(.)	(.)	(0.226)	(0.214)
English Language (%)	-0.002				-0.005	-0.002
	(0.223)	(.)	(.)	(.)	(0.588)	(0.531)
English Language Squared	0.000				0.000	-0.000
	(0.178)	(.)	(.)	(.)	(0.398)	(0.596)
Female (%)	-0.009				-0.073***	-0.041**
,	(0.531)	(.)	(.)	(.)	(0.001)	(0.002)
Female Squared	0.000				0.001**	0.000**
•	(0.627)	(.)	(.)	(.)	(0.001)	(0.003)
SWD (%)	0.004				0.019	-0.034
	(0.171)	(.)	(.)	(.)	(0.344)	(0.191)
SWD Squared	-0.000				-0.000	0.001
	(0.327)	(.)	(.)	(.)	(0.448)	(0.386)
White (%)	0.000				0.005	-0.002
	(0.813)	(.)	(.)	(.)	(0.163)	(0.382)
White Squared	-0.000				-0.000+	0.000
	(0.449)	(.)	(.)	(.)	(0.052)	(0.339)
N	2875	2875	2875	2875	2875	2875

Notes: P-values in parentheses. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. Average marginal effects are reported after a two-part model using probit in the first part and ordinary least squares regression in the second part. Each observation is weighted by student enrollment. Each model includes grade and county fixed effects. "SWD" is "Students with Disabilities." Each dependent variable is divided by student enrollment (in 100s). Perfect predictors are not dropped from the model. Standard errors could not be calculated for columns two, three, or four because of concavity issues.

Table A16: School Sector and Climate Problems

	Robbery	Theft	Bullying	Suicide Attempt	Rioting	Bomb Threat
Regular Charter		-0.013	0.047	•		0.004
	(.)	(0.670)	(0.419)	(.)	(.)	(0.595)
Cyber Charter		-0.619***	-0.776***			-0.050***
	(.)	(0.000)	(0.000)	(.)	(.)	(0.000)
Enrollment (100s)		0.005*	0.006			-0.000
	(.)	(0.027)	(0.175)	(.)	(.)	(0.715)
Enrollment Squared		-0.000	-0.000			0.000
	(.)	(0.685)	(0.487)	(.)	(.)	(0.963)
Low Income (%)		0.002+	0.003+			0.001*
	(.)	(0.071)	(0.053)	(.)	(.)	(0.034)
Low Income Squared		0.000	-0.000			-0.000+
•	(.)	(0.825)	(0.348)	(.)	(.)	(0.074)
English Language (%)		-0.002	0.004			-0.000
	(.)	(0.362)	(0.353)	(.)	(.)	(0.978)
English Language Squared		-0.000	-0.000			-0.000
	(.)	(0.503)	(0.615)	(.)	(.)	(0.857)
Female (%)		-0.005	-0.019			-0.006
, ,	(.)	(0.559)	(0.490)	(.)	(.)	(0.569)
Female Squared		0.000	0.000			0.000
•	(.)	(0.703)	(0.516)	(.)	(.)	(0.625)
SWD (%)		0.003	-0.012			0.002
	(.)	(0.699)	(0.564)	(.)	(.)	(0.674)
SWD Squared		-0.000	0.000			-0.000
•	(.)	(0.725)	(0.418)	(.)	(.)	(0.542)
White (%)		0.000	-0.001			-0.001+
	(.)	(0.967)	(0.393)	(.)	(.)	(0.081)
White Squared		-0.000	0.000	• •		0.000+
<u> </u>	(.)	(0.762)	(0.375)	(.)	(.)	(0.078)
N	2875	2875	2875	2875	2875	2875

Notes: P-values in parentheses. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. Average marginal effects are reported after a two-part model using probit in the first part and ordinary least squares regression in the second part. Each observation is weighted by student enrollment. Each model includes grade and county fixed effects. "SWD" is "Students with Disabilities." Each dependent variable is divided by student enrollment (in 100s). Perfect predictors are not dropped from the model. Standard errors could not be calculated for columns one, four, or five because of concavity issues.

Table A17: School Sector and Climate Problems

	Terror Threats	Failure to Disperse	Disorderly Conduct	Handgun	Rifle or Shotgun	Other Firearm
egular Charter	0.057**	0.047	-0.270	-0.000	5110 15 thi	-0.017
ogului Churtei	(0.001)	(0.419)	(0.210)	(0.505)	(.)	(0.262)
yber Charter	-0.301***	-0.776***	-0.504	-0.007**		-0.017
	(0.000)	(0.000)	(0.460)	(0.005)	(.)	(0.791)
Enrollment (100s)	0.002	0.006	0.027+	-0.000		0.000
	(0.128)	(0.175)	(0.090)	(0.427)	(.)	(0.731)
nrollment Squared	-0.000	-0.000	-0.000	0.000		-0.000
	(0.929)	(0.487)	(0.230)	(0.265)	(.)	(0.734)
ow Income (%)	-0.000	0.003+	0.003	-0.000+		-0.001
	(0.501)	(0.053)	(0.600)	(0.100)	(.)	(0.471)
ow Income Squared	0.000	-0.000	0.000	0.000+		0.000
-	(0.123)	(0.348)	(0.654)	(0.065)	(.)	(0.458)
nglish Language (%)	-0.004*	0.004	0.002	0.000		0.000
	(0.024)	(0.353)	(0.817)	(0.160)	(.)	(0.850)
nglish Language Squared	0.000	-0.000	-0.000	-0.000		-0.000
	(0.391)	(0.615)	(0.287)	(0.432)	(.)	(0.727)
emale (%)	-0.017	-0.019	-0.013	0.001		-0.002
	(0.247)	(0.490)	(0.692)	(0.216)	(.)	(0.139)
emale Squared	0.000	0.000	0.000	-0.000		0.000
•	(0.280)	(0.516)	(0.793)	(0.151)	(.)	(0.136)
WD (%)	0.017**	-0.012	0.004	0.001		-0.002
	(0.003)	(0.564)	(0.838)	(0.487)	(.)	(0.320)
WD Squared	-0.000**	0.000	0.000	-0.000		0.000
	(0.006)	(0.418)	(0.837)	(0.603)	(.)	(0.440)
7hite (%)	0.001	-0.001	-0.017+	-0.000		0.001
	(0.146)	(0.393)	(0.096)	(0.984)	(.)	(0.199)
hite Squared	-0.000*	0.000	0.000	-0.000		-0.000
			,			(0.191)
•	(0.042) 2875	(0.375) 2875	(0.234) 2875	(0.659) 2875	(.) 2875	

Notes: P-values in parentheses. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. Average marginal effects are reported after a two-part model using probit in the first part and ordinary least squares regression in the second part. Each observation is weighted by student enrollment. Each model includes grade and county fixed effects. "SWD" is "Students with Disabilities." Each dependent variable is divided by student enrollment (in 100s). Perfect predictors are not dropped from the model. Standard errors could not be calculated for column five because of concavity issues.

Table A18: School Sector and Climate Problems

	Knife	Cutting	Explosive	Pellet Gun	Other	Burglary
0. 1. 01.	Possession	Instrument		0.01244	Weapon	
Regular Charter	-0.021	-0.024**	()	0.013**	-0.030**	
	(0.223)	(0.006)	(.)	(0.003)	(0.009)	(.)
Cyber Charter	-0.437***	-0.029		-0.047***	-0.333*	
	(0.000)	(0.392)	(.)	(0.000)	(0.028)	(.)
Enrollment (100s)	0.002	0.000		-0.000	-0.000	
,	(0.129)	(0.569)	(.)	(0.943)	(0.867)	(.)
Enrollment Squared	0.000	0.000		0.000	0.000	
	(0.871)	(0.276)	(.)	(0.792)	(0.194)	(.)
Low Income (%)	0.002***	0.000		0.000*	0.002***	
	(0.000)	(0.509)	(.)	(0.050)	(0.001)	(.)
Low Income Squared	-0.000*	0.000		-0.000	-0.000*	
	(0.030)	(0.866)	(.)	(0.251)	(0.027)	(.)
English Language (%)	0.002	0.001		0.000	-0.001	
	(0.183)	(0.179)	(.)	(0.928)	(0.276)	(.)
English Language Squared	-0.000	-0.000		0.000	0.000	
	(0.237)	(0.302)	(.)	(0.822)	(0.918)	(.)
Female (%)	-0.015***	-0.003		-0.007*	-0.009	
	(0.001)	(0.122)	(.)	(0.031)	(0.441)	(.)
Female Squared	0.000**	0.000+		0.000+	0.000	
	(0.004)	(0.082)	(.)	(0.092)	(0.505)	(.)
SWD (%)	0.007	-0.000		0.002	0.002	
` '	(0.202)	(0.965)	(.)	(0.313)	(0.296)	(.)
SWD Squared	-0.000	0.000		-0.000	-0.000	•
	(0.269)	(0.194)	(.)	(0.343)	(0.464)	(.)
White (%)	-0.001	-0.000		0.000	-0.001+	
` '	(0.227)	(0.864)	(.)	(0.249)	(0.080)	(.)
White Squared	0.000	-0.000		-0.000	0.000	
	(0.138)	(0.916)	(.)	(0.354)	(0.152)	(.)
N	2875	2875	2875	2875	2875	2875

Notes: P-values in parentheses. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. Average marginal effects are reported after a two-part model using probit in the first part and ordinary least squares regression in the second part. Each observation is weighted by student enrollment. Each model includes grade and county fixed effects. "SWD" is "Students with Disabilities." Each dependent variable is divided by student enrollment (in 100s). Perfect predictors are not dropped from the model. Standard errors could not be calculated for columns three or six because of concavity issues.

Table A19: School Sector and Climate Problems

	Arson	Vandalism	Criminal Trespass	Possess Controlled Substance	Distribute Controlled Substance	Alcohol
Regular Charter		-0.080*		-0.061+	0.008	0.036
	(.)	(0.014)	(.)	(0.088)	(0.243)	(0.131)
Cyber Charter		-0.596***		-0.638***	-0.076***	-0.217***
J.	(.)	(0.000)	(.)	(0.000)	(0.000)	(0.000)
Enrollment (100s)		-0.000		0.014***	0.001*	0.002+
` ,	(.)	(0.960)	(.)	(0.000)	(0.018)	(0.052)
Enrollment Squared		0.000		-0.000	-0.000	-0.000
~ ¶ww.vw	(.)	(0.366)	(.)	(0.186)	(0.428)	(0.611)
Low Income (%)		0.002		0.004**	0.000	0.001*
(, ,,	(.)	(0.123)	(.)	(0.003)	(0.148)	(0.032)
Low Income Squared		0.000		-0.000+	-0.000	-0.000+
1	(.)	(0.492)	(.)	(0.055)	(0.367)	(0.089)
English Language (%)		-0.005		-0.004	-0.000	-0.003
	(.)	(0.154)	(.)	(0.192)	(0.608)	(0.344)
English Language Squared		0.000		0.000	0.000	0.000
	(.)	(0.387)	(.)	(0.925)	(0.876)	(0.314)
Female (%)		-0.039		-0.041***	-0.003	0.013
, ,	(.)	(0.290)	(.)	(0.000)	(0.259)	(0.534)
Female Squared		0.000		0.000***	0.000	-0.000
CIMID (0/)	(.)	(0.287)	(.)	(0.000)	(0.342)	(0.552)
SWD (%)		0.003 (0.754)		0.008 (0.241)	0.004 (0.119)	0.002 (0.779)
SWD Squared	(.)	-0.000	(.)	-0.000	-0.000+	-0.000
	* /	(0.499)		(0.632)	(0.068)	(0.914)
White (%)	(.)	0.002	(.)	-0.004*	0.000	0.001
		(0.411)		(0.013)	(0.509)	(0.441)
White Squared	(.)	-0.000	(.)	0.000+	-0.000	-0.000
N	2875	(0.229) 2875	2875	(0.058) 2875	(0.557) 2875	(0.795) 2875

Notes: P-values in parentheses. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. Average marginal effects are reported after a two-part model using probit in the first part and ordinary least squares regression in the second part. Each observation is weighted by student enrollment. Each model includes grade and county fixed effects. "SWD" is "Students with Disabilities." Each dependent variable is divided by student enrollment (in 100s). Perfect predictors are not dropped from the model. Standard errors could not be calculated for columns one or three because of concavity issues.

Table A20: School Sector and Climate Problems

	Tobacco or	Cyber	Academic	School Code
- 1 GI	Vaping	Harassment	Dishonesty	of Conduct
Regular Charter	-0.166+	0.017*	0.182	4.989*
	(0.065)	(0.043)	(0.207)	(0.016)
Cyber Charter	-0.801***	-0.111	-0.410*	-11.257+
	(0.000)	(0.140)	(0.016)	(0.069)
Enrollment (100s)	0.060***	-0.001	0.022	0.257**
,	(0.000)	(0.386)	(0.164)	(0.004)
Enrollment Squared	-0.001***	0.000	-0.000	-0.002
11	(0.000)	(0.102)	(0.232)	(0.145)
Low Income (%)	0.017***	0.001	-0.006	0.017
20.7. 11001110 (70)	(0.000)	(0.210)	(0.535)	(0.764)
Low Income Squared	-0.000**	-0.000	0.000	0.001
	(0.001)	(0.183)	(0.576)	(0.118)
English Language (%)	-0.019*	-0.003+	-0.005	-0.079
8	(0.013)	(0.090)	(0.834)	(0.404)
English Language Squared	0.001**	0.000*	0.001	0.000
	(0.005)	(0.034)	(0.486)	(0.925)
Female (%)	-0.019	-0.007+	0.049	0.117
	(0.441)	(0.065)	(0.706)	(0.752)
Female Squared	0.000	0.000*	-0.001	-0.002
	(0.366)	(0.045)	(0.632)	(0.644)
SWD (%)	0.031+	0.001	-0.002	0.621*
	(0.061)	(0.886)	(0.968)	(0.019)
SWD Squared	-0.000	0.000	-0.000	-0.008
- 1	(0.216)	(0.952)	(0.906)	(0.192)
White (%)	-0.004	0.001	-0.006	0.077
· /	(0.275)	(0.153)	(0.267)	(0.385)
White Squared	0.000***	-0.000	0.000	-0.001+
1	(0.000)	(0.190)	(0.375)	(0.092)
R-Squared	0.3990	0.0441	0.0891	0.2394
N	2875	2875	2875	2875

Notes: P-values in parentheses. + p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001. Average marginal effects are reported after a two-part model using probit in the first part and ordinary least squares regression in the second part. Each observation is weighted by student enrollment. Each model includes grade and county fixed effects. "SWD" is "Students with Disabilities." Each dependent variable is divided by student enrollment (in 100s). Perfect predictors are not dropped from the model.



