



## Working Paper 2019-2

### **ARE CHOICE SCHOOLS SAFE SCHOOLS?**

A Cross-Sector Analysis of K–12 Safety Policies and  
School Climates in Indiana

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# Executive Summary

When we send students to school, we expect them to be safe, and parents routinely tell us in surveys that a safe environment is among their top reasons for choosing a school (Bedrick & Burke, 2018; Catt & Rhinesmith, 2017; Holmes Erickson, 2017; Kelly & Scafidi, 2013). We also know that while 82 percent of families currently enroll their children in a traditional public school, only 36 percent would do so if they could attend any schooling type they'd like. In fact, 40 percent would choose private schools if they could—four times current private school enrollment.

But are private schools safer than public schools? Do they use the same security procedures? Do they suspend or expel students at a higher rate? Do private schools that participate in school choice programs report the same safety issues as private schools that do not participate in school choice programs? How does charter school safety compare to traditional public school safety?

This report seeks to rigorously address these questions—and more—by collecting data from 618 school leaders across Indiana. We used their responses to empirically examine the relationship between private schooling and the presence of the following school safety-related practices:

- control access to school buildings during school hours (e.g., locked or monitored doors)
- control access to school grounds during school hours (e.g., locked or monitored gates)
- require students to pass through metal detectors each day
- perform one or more random metal detector checks on students
- close the campus for most or all students during lunch
- use one or more random dog sniffs to check for drugs
- perform one or more random sweeps for contraband (e.g., drugs or weapons)
- require students to wear uniforms.
- enforce a strict dress code.
- require clear book bags or ban book bags on school grounds
- require students to wear badges or picture IDs.

- use one or more security cameras to monitor the school
- maintain a daily presence of police or security personnel

We also analyze the relationship between private schooling and the following problems occurring at school:

- Student racial tensions
- Student bullying
- Student verbal abuse of teachers
- Widespread disorder in classrooms
- Student acts of disrespect for teachers
- Gang activities

After controlling for student and school factors such as school type, student enrollment, percent of students eligible for the federal free and reduced-price lunch, the percent of minority students and teachers, and urbanicity, we find robust evidence to suggest that private schools and charter schools experience fewer discipline problems while employing fewer disciplinary practices and expelling fewer students than traditional public schools. The private and charter school advantages generally remain even after controlling for differences in school-level discipline practices across sectors.

## **School Safety Practices and Discipline**

Table 1 below summarizes the main findings from our statistical models examining a relationship between school choice and school safety practices and discipline. The first column compares differences between private schools and traditional public schools (TPS) in reporting that they implement a given school safety practice.

**Table 1: Summary of Results on School Choice and School Safety Practices, School Discipline**

	Private vs. TPS	Charter vs. TPS
<i>School Safety Practices:</i>		
Access to School Buildings	0	0
Access to School Grounds	-	-
Pass Through Metal Detectors	0	0
Random Metal Detector Checks	-	0
Close Campus During Lunch	0	-
Random Dog Sniffs for Drugs	-	-
Random Sweeps for Contra-band	0	-
Uniforms Required	+	+
Strict Dress Code	+	+
Clear or Banned Book Bags	0	0
Badges or Picture IDs Required	0	0
Security Cameras	-	0
Security Personnel	-	0
<i>School Discipline:</i>		
Expulsions	0	0
Suspensions	0	0

*Notes:* How to read table: "+" and "-" indicates that a results is statistically significant at a confidence level of 90 percent or higher, and "0" indicates a result that is not statistically significant at this confidence level; a "+" in the first (second) column indicates that a private school (charter school) is more likely to engage in the respective school safety practice than district schools; a "-" in the first (second) column indicates that a private school (charter school) is less likely to engage in the respective school safety practice.

The main findings summarized in Table 1 are:

- On five out of seven statistically significant measures, private schools were less likely than traditional public schools to use various school security practices. Specifically, private schools were less likely than traditional public schools to control access to school grounds, perform random metal detector checks, use random dog sniffs for drugs, use security cameras, and have security personnel on campus (Table 5a and Table 5b in the full report).
- Four out of six statistically significant results indicate that charter schools are less likely to use various school security practices than public schools. Specifically, charter schools were less likely than traditional public schools to control access to school grounds, close

campus during lunch, use random dog sniffs for drugs, and perform random sweeps for contraband (Table 5a and Table 5b in the full report).

- Despite the claims that private and charter schools maintain safer environments because of additional freedom to expel and suspend disruptive students, suspension and expulsion rates are not statistically different from one another across sectors (Table 6 in the full report).

## School Problems

Table 2 below summarizes the main findings from our statistical models examining a relationship between school choice and school problems. The first column compares differences between private schools and traditional public schools in reporting that a given school problem “never happens.” The second column compares differences between public charter schools and traditional public schools in reporting that a given school problem “never happens.” The third column compares differences between private schools not participating in Indiana’s voucher and tax-credit scholarship programs and traditional public schools in reporting that a given school problem “never happens.” The fourth column compares differences between private schools participating in Indiana’s voucher and tax-credit scholarship programs and traditional public schools in reporting that a given school problem “never happens.”

The main findings summarized in Table 2 are:

- Eleven of 13 results indicate that private school leaders are statistically more likely than public school leaders to report “never” having problems at their schools; eight of these 11 private school advantages remain statistically significant even after adding controls for school safety practices. Specifically, private schools are less likely to have physical conflicts, robberies or thefts, vandalism, student possession of weapons, physical abuse of teachers, verbal abuse of teachers, widespread disorder in the classroom, and gang activities (Table 8a and Table 8b). Similarly, when all controls are used, three out of five statistically significant relationships indicate charter school safety advantages relative to traditional public schools. In particular, charter schools are less likely to experience

physical abuse of teachers, racial tensions, and gang activities (Table 8a and Table 8b in the full report).

- Private schools that elect not to participate in private school choice programs in Indiana tend to have larger safety advantages than participating private schools (Table 9a and Table 9b in the full report).

**Table 2: Summary of Results on School Choice and School Problems reported as "Never Happens"**

	Private vs. TPS	Charter vs. TPS	Non-choice private vs. TPS	Choice private schools vs. TPS
Physical Conflicts	+	0	+	+
Robbery or Theft	+	0	+	+
Vandalism	+	0	+	0
Use of Alcohol	0	0	0	0
Use of Illegal Drugs	0	0	0	0
Possession of Weapons	+	0	+	+
Physical Abuse of Teachers	+	+	+	+
Racial Tensions	0	+	+	0
Bullying	0	-	0	0
Verbal Abuse of Teachers	+	0	+	+
Widespread Disorder in Classroom	+	0	+	+
Disrespect for Teachers	0	-	0	+
Gang Activities	+	+	+	+

*Notes:* How to read table: a "+" or "-" indicates that a results is statistically significant at a confidence level of 90 percent or higher, and a "0" indicates a result that is not statistically significant at this confidence level; a "+" in the first (second) column indicates that a private school (charter school) is more likely to report that the respective school problem "never happens"; a "-" in the first (second) column indicates that a private school (charter school) is less likely to report that the respective school problem "never happens"; the third column summarizes results comparing private schools not participating in Indiana's voucher and tax-credit scholarship programs with traditional public schools; the fourth column summarizes results comparing private schools participating in Indiana's voucher and tax-credit scholarship programs with traditional public schools; "+", "0" and "-" are interpreted in a similar manner as those in the first two columns

# Introduction

Families, educators and local communities should be confident that children are safe when they go to school each day. From bullying to sexual assault to acts of deadly violence, recent events suggest that some schools may be struggling to keep children safe (Jetelina et al., 2019).

In fact, the recently created Federal Commission on School Safety traveled across the U.S. this year to gain feedback from the public on how to make schools safer. Many people called for heightened security measures, such as arming teachers, mandating clear backpacks, and stationing more officers in public schools. Some schools have responded by increasing police officers, security guards, and other visible security measures, but there is little evidence to support the effectiveness and use of these expensive measures (Cuellar, 2018; Mowen & Freng, 2018). Moreover, this type of environment may not improve the mental stability of children within schools. Indeed, some critics argue that a restrictive setting could do more harm than good by stressing students out (Warnick & Kapa, 2019). In addition, having more armed adults on-site may not reduce the likelihood that students engage in activities such as bullying or fighting.

As the debate continues over what kind of safety practices should be implemented and at what cost, we turn our attention to the question of whether certain schooling types are safer or more secure than other types.

Private schools could improve school safety and culture through competitive pressures (Chubb & Moe, 1988; Chubb & Moe, 1990; Friedman, 1955; Friedman, 1997). Private schools must cater to the needs of individual families, so they have strong financial incentives to provide students with safe environments. Families care deeply about their children's safety and would not voluntarily send their children to schools they perceive as unsafe (Bedrick & Burke, 2018; Catt & Rhinesmith, 2017; Holmes Erickson, 2017; Kelly & Scafidi, 2013). Residential assignment makes it quite difficult for some families to get their children out of traditional public schools that parents may perceive as unsafe (Friedman, 1955). This may be especially true for low-income families in urban areas—whose children typically have the least safe schooling

environments—because choosing another traditional public school usually requires changing residences, whereas private schools do not have residential requirements (Friedman, 1997).

As parents value safety, unsafe private schools might face stronger incentives to improve their safety levels if they don't want to shut down in the long-run. There may be other reasons for a choice advantage with respect to safety. For example, choice critics often argue that school choice policies allow private schools and public charter schools to engage in “cream skimming” (e.g., Altonji, Huang, & Taber, 2010). Thus, private and charter schools may be safer because they benefit from selection effects. But competition is not the only explanation for why schools of choice could have a safety advantage.

As private and charter schools usually face less government regulation than district schools, private and charter school leaders have more freedom to control the discipline policies at their institutions (Shakeel & DeAngelis, 2017). The freedom to control discipline policies might lead to fewer disciplinary infractions, a safer environment, and better school culture. On the other hand, selection issues may help explain some of these advantages (e.g., Davies & Aurini, 2011; Haynes, Phillips, & Goldring, 2010; Jones et al., 2009).

In theory, it is also possible that additional freedom in setting discipline policies could lead to less safety—especially if school leaders do not have much experience making these types of decisions. Furthermore, traditional public schools might demonstrate safety advantages since they generally receive more financial resources per-pupil than charter schools and private schools (e.g. DeAngelis et al., 2018; Shakeel, Anderson, & Wolf, 2017; Wolf et al., 2017).

All of these points bring us to some critical questions, both for families and policymakers: What types of safety restrictions are different schooling types imposing on their students—and to what end? Do schools of choice have fewer safety problems than traditional public schools?

We collected data from 618 Indiana school leaders from differently schooling types to empirically examine the relationship between private schooling and the presence school safety related practices (such as metal detectors, random dog sniffs, and clear backpacks) and problems

occurring at school (such as fighting, bullying, and racial tensions). After controlling for factors such as school type, student enrollment, the number of students eligible for the national free and reduced-price lunch (FRL) program, the number of minority students and teachers, and urbanicity, we find robust evidence to suggest that private and charter schools experience fewer disciplinary problems while employing fewer restrictions on students, such as requiring students to enter school through metal detectors, having random dog sniffs, and expelling fewer students than traditional public schools.

## Review of Research

Four studies have examined the link between private school choice programs in the United States and student safety. Each of these studies find statistically significant positive effects on parent reports of student safety (Dynarski et al., 2018; Howell & Peterson, 2006; Witte et al., 2008; Wolf et al., 2010). Three of the four studies employ random-assignment methodology (Dynarski et al., 2018; Howell & Peterson, 2006; Wolf et al., 2010), as random lottery determined which students received access to the private school choice program. The first federal evaluation of the D.C. Opportunity Scholarship Program found that voucher parents rated their children’s schools about 6 percent higher than public school parents on a school safety scale after four years; however, the program had no effect on student reports of school safety (Wolf et al., 2010). The most recent federal evaluation of the D.C. program found that voucher parents were 20 percentage points more likely to report that their children were in “very safe” schools, while voucher students were 16 percentage points more likely to report that they were in “very safe” schools after two years (Dynarski et al., 2018). Similarly, Howell and Peterson (2006) found that parents of students winning the lottery to use a voucher program in D.C., New York, and Ohio reported fewer school safety problems than parents of children in public schools.

A quasi-experimental study—using a rigorous matching design—found that parents of children using the Milwaukee Parental Choice Program were more likely to “strongly agree” that their students were in safe schools (Witte et al., 2008). The most recent study on the topic used nationally representative data from the principal questionnaire of the 2011-12 round of the *Schools and Staffing Survey*. After controlling for school and student characteristics, such as the percent of minority students, the percent of minority teachers, school level, school size, enrollment, student-teacher ratio, and urbanicity, Shakeel and DeAngelis (2018) found that

private and charter schools were significantly less likely to experience school safety problems such as fighting, bullying, and racial tensions. Hamlin (2017) found evidence to suggest that neighborhood charter schools exhibited higher perceived school safety than neighborhood traditional public schools in Detroit. Differences in perceived school safety between charter schools and traditional public schools were positive but became statistically insignificant after adding controls for parental involvement and student commute distance. DeAngelis and Dills (2018) found that charter school laws and private schooling reduced student mental health issues.

Several other descriptive studies also indicate that private schools generally have a better school climate than traditional public schools (Fan, Williams, & Corkin, 2011; Farina, 2018; Gerlinger & Wo, 2016; Henkel & Slate, 2013; Lleras, 2008; Waasdorp et al., 2018; Zhang, Musu-Gillette, & Oudekerk, 2016). For instance, NCES data suggests that bullying occurs more frequently in public schools (Farina, 2018). In addition, a few rigorous studies have found that school choice reduces the chance that male students will commit crimes as adults, perhaps because of improved school climate and enhanced character education (DeAngelis & Wolf, 2016; DeAngelis & Wolf, 2019; Deming, 2011; Dills & Hernández-Julian, 2011; Dobbie & Fryer, 2015).

Some studies also examined school safety by comparing charters and district schools, though these studies did not use controls for student characteristics or school factors (Christensen, 2007). Parental influences and adolescents' perceptions of their parents' attitudes towards violence can influence youth fighting and incidences of school violence (Jones et al., 2010). Thus, self-selection into private schools or charter schools may influence safety-related issues at school (Buckley & Schneider, 2005).

We conduct a similar analysis to Shakeel and DeAngelis (2018) and focus on the state of Indiana. However, we improve upon Shakeel and DeAngelis (2018) in a few important ways: (1) we survey schools seven years later, in 2018, (2) include several additional control variables to generate more accurate estimates of the relationship between school choice and school safety, and (3) provide subgroup analyses for the schools that decide to participate in the state's two private school choice programs.

# Data

We constructed our survey based on the principal questionnaire used for the 2011-12 wave of the *Schools and Staffing Survey*.<sup>1</sup> In particular, our dependent variables of interest came from the *School Climate and Safety* section (number 5) of the survey. Our survey pulled questions 23a through 23m (13 questions) regarding school-level safety practices and questions 25a through 25m (13 questions) regarding school-level safety problems. Question 23 is binary and asks whether it is “the practice of this school to do the following” during the current school year for 13 different safety practices including requiring clear book bags, enforcing a strict dress code, and requiring students to pass through metal detectors each day. Question 25 asks “how often do the following types of problems occur at this school” during the school year for 13 different school safety problems including physical conflicts among students, student bullying, and gang activities. SASS includes five options ranging from “never happens” to “happens daily” for these 13 outcomes. In order to achieve more statistical power, we provided our respondents with eight options, also ranging from “never happens” to “happens daily.” We also asked questions about background of the respondents and their schools, teachers, and students.<sup>2</sup>

Hanover Research sent a link to an online survey via email to school site leaders of 1,913 traditional public schools, 520 private schools, and 57 charter schools in Indiana on Sept. 12, 2018. Hanover Research sent email reminders roughly every four days until the survey closed on Oct. 4, 2018. We received completed surveys from site leaders from 347 traditional public schools, 235 private schools, and 36 charter schools. The overall response rate across the three sectors was 25 percent. The response rate was 18 percent for traditional public schools, 45 percent for private schools, and 63 percent for charter schools. All of our analytic models weight each observation by the inverse of the probability of non-response because differential response rate across sectors could lead to biased estimates (Peytchev, 2013). This method has been shown to reduce the bias introduced by differential survey response rates (Tourangeau & Plewes, 2013; Wooldridge, 2007). Descriptive statistics can be found in Table 1 and Table 2 below.

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<sup>1</sup> SASS is a survey of a nationally representative sample. We replicated the survey and asked Hanover to administer it to schools in Indiana because there is insufficient statistical power to compare differences in responses across school sectors within individual states by using SASS data.

<sup>2</sup> A link to our survey instrument can be found at [LINK](#)

**Table 1: Descriptive Statistics of Dependent Variables**

<b>Variable</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Min</b>	<b>Max</b>	<b>N</b>
<i>School Safety Practices</i>					
Control Access (Buildings)	0.98	0.15	0	1	618
Control Access (Grounds)	0.59	0.49	0	1	616
Metal Detectors (Pass Through)	0.00	0.06	0	1	614
Metal Detectors (Random Checks)	0.03	0.18	0	1	601
Close Campus During Lunch	0.73	0.44	0	1	601
Random Dog Sniffs	0.25	0.43	0	1	606
Random Sweeps for Contraband	0.18	0.38	0	1	603
Uniforms Required	0.30	0.46	0	1	616
Strict Dress Code	0.54	0.50	0	1	614
Clear or Banned Book Bags	0.03	0.18	0	1	613
Badges or Picture IDs	0.10	0.30	0	1	615
Security Cameras	0.89	0.32	0	1	616
Security Personnel	0.39	0.49	0	1	614
<i>School Problems</i>					
Physical Conflicts	2.49	1.37	1	8	605
Robbery or Theft	1.96	1.34	1	8	603
Vandalism	1.92	1.16	1	8	605
Alcohol	1.69	1.76	1	8	605
Illegal Drugs	1.83	1.75	1	8	604
Possession of Weapons	1.38	0.97	1	8	604
Physical Abuse of Teachers	1.36	0.96	1	8	604
Racial Tensions	1.79	1.36	1	8	605
Bullying	2.93	1.55	1	8	605
Verbal Abuse of Teachers	2.23	1.62	1	8	604
Widespread Disorder	1.72	1.36	1	8	605
Disrespect of Teachers	3.51	1.87	1	8	605
Gang Activities	1.34	1.34	1	8	604
Suspensions	31.93	72.66	0	594	441
Expulsions	1.32	3.76	0	40	521

As shown in Table 1, 98 percent of schools in our sample control access to buildings during school hours; 59 percent control access to school grounds during school hours; almost no schools require students to pass through metal detectors daily; 3 percent perform random metal detector checks; 73 percent close campus during lunch; 25 percent perform random dog sniffs; 18 percent perform random sweeps for contraband (not including dog sniffs); 30 percent require uniforms; 54 percent require a strict dress code; 3 percent ban (or require clear) book bags; 10 percent require badges or picture IDs; 89 percent use security cameras; and 39 percent have police or private security personnel on-site.

Physical conflicts and bullying are the most prevalent problems in schools, while gang activities, physical abuse of teachers, and student weapon possession are the least prevalent problems in schools.

**Table 2: Descriptive Statistics of Independent Variables**

<b>Variable</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Min</b>	<b>Max</b>	<b>N</b>
<i>School Characteristics</i>					
Traditional Public	0.56	0.50	0	1	618
Public Charter	0.06	0.23	0	1	618
Private	0.38	0.49	0	1	618
Private (Choice Program)	0.32	0.47	0	1	618
Private (Non-Choice)	0.06	0.24	0	1	618
Student Enrollment	588.93	2,927.04	4	62,050	599
High School	0.18	0.38	0	1	618
Elementary School	0.41	0.49	0	1	618
Elementary/Middle School	0.13	0.33	0	1	618
Middle School	0.08	0.28	0	1	618
Middle/High School	0.06	0.24	0	1	618
K-12 School	0.07	0.26	0	1	618
City	0.29	0.45	0	1	618
Rural Area	0.30	0.46	0	1	618
Suburbs	0.20	0.40	0	1	618
Town	0.22	0.41	0	1	618
Full Time Teachers	27.89	19.72	1	200	592
Minority Teachers	2.90	8.86	0	170	548
<i>Student Characteristics</i>					
Minority Students	98.43	191.68	0	3000	519
FRL Students	177.18	171.32	0	1,682	502
ELL Students	23.74	54.48	0	600	530
<i>Respondent Characteristics</i>					
Principal Respondent	0.79	0.41	0	1	618
Female Respondent	0.49	0.50	0	1	618
Male Respondent	0.46	0.50	0	1	618
White Respondent	0.88	0.33	0	1	618

As shown in Table 2, public schools represent 56 percent of the sample, private schools represent 38 percent, and charters represent 6 percent. The vast majority of private schools in our sample participate in Indiana’s Choice Scholarship Program or School Scholarship Tax Credit program (84 percent), while 16 percent do not participate in any private school choice programs. The average school in our sample has 589 total students, 24 English Language Learner (ELL) students (4 percent of students enrolled in the school), 177 students qualifying for the federal free and reduced-price lunch program (FRL) (30 percent of students enrolled in the school), and 98 minority students (17 percent of students enrolled in the school).

Table 3 shows differences in school safety practices across sectors. Traditional public schools represent the base comparison group. The columns for public charter and private schools display statistical significance for t-tests that compare public charter and private schools with traditional public schools.

**Table 3: Summary Statistics by Sector (Safety Practices)**

<b>Measure</b>	<b>Traditional Public (%)</b>	<b>Public Charter (%)</b>	<b>Private (%)</b>
Control access to school buildings during school hours	98.56	91.67**	97.02
Control access to school grounds during school hours	63.29	47.22+	54.70*
Require students to pass through metal detectors each day	0.00	2.78**	0.00
Perform one or more random metal detector checks on students	5.11	5.71	0.00**
Close the campus for most or all students during lunch	78.64	45.71***	69.43*
Use one or more random dog sniffs to check for drugs	35.80	11.11**	12.07***
One or more random sweeps for contraband (not including dog sniffs)	21.66	11.11	13.48*
Require students to wear uniforms	6.92	67.57***	59.40***
Enforce a strict dress code	40.58	67.57**	72.65***
Require clear book bags or ban book bags on school grounds	3.48	16.67***	1.29
Require students to wear badges or picture IDs	8.07	21.62**	10.30
Security cameras	95.10	86.49*	79.06***
Security personnel	54.05	54.05	13.30***
<b>N</b>	<b>347</b>	<b>36</b>	<b>235</b>

*Notes:* +  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . Statistical significance was calculated using a t-test relative to the traditional public school sector.

Before including statistical controls for differences in respondents, students, or schools, Table 3 shows that private schools generally have fewer restrictive school safety practices than traditional public schools. Seven out of the nine statistically significant differences between private schools indicate that private schools have fewer restrictive disciplinary practices than traditional public schools. Compared to traditional public schools, private schools are less likely to do the following: control access to school grounds during school hours, perform random metal detector checks on students, close campus during lunch, use random dog sniffs for drugs, use random sweeps for contraband, use security cameras, and use police or private security personnel. The only exception is that private schools are more likely to enforce a strict dress code and more likely to require students to wear uniforms than traditional public schools.

Five out of the ten statistically significant differences indicate that charters are less likely to have restrictive safety practices than traditional public schools. Relative to traditional public schools, charter schools are less likely to: control access to school buildings, control access to school grounds, close campus for lunch, use random dog sniffs to check for drugs, and use security cameras. However, charter schools are more likely to do the following: require students to pass through metal detectors daily, require students to wear uniforms, enforce a strict dress code, ban (or require clear) book bags, and require students to wear badges or picture IDs.

**Table 4: Summary Statistics by Sector (School Problems)**

<b>Measure</b>	<b>Traditional Public</b>	<b>Public Charter</b>	<b>Private</b>
Physical conflicts among students	2.77	3.32*	1.95***
Robbery or theft	2.06	2.26	1.75**
Vandalism	2.00	2.38+	1.74**
Student use of alcohol	1.67	1.53	1.75
Student use of illegal drugs	1.74	2.53**	1.86
Student possession of weapons	1.47	1.97**	1.17***
Physical abuse of teachers	1.49	1.76	1.11***
Student racial tensions	1.77	2.20+	1.75
Student bullying	2.91	3.66**	2.84
Student verbal abuse of teachers	2.52	3.09+	1.66***
Widespread disorder in classrooms	1.76	3.23***	1.42***
Student acts of disrespect for teachers	3.82	4.97**	2.82***
Gang activities	1.43	1.51	1.18*
<b>N</b>	343	34	228

*Notes:* +  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . Statistical significance was calculated using a t-test. Sector averages from an 8-point Likert scale are displayed. Lower values mean fewer problems occur and higher values mean more problems occur. “1” means “Never Happens” and “8” means “Happens Daily.”

Table 4 shows differences in school safety problems across sectors. Lower values are more desirable, as they indicate that the safety problems are less likely to occur. As in Table 3, traditional public schools represent the comparison group. The columns for public charter and private schools display statistical significance for t-tests that compare public charter and private schools with traditional public schools.

All nine of the statistically significant differences between traditional public and private schools suggest private school safety advantages. Private schools are less likely to report physical conflicts among students, robbery or theft, vandalism, student possession of weapons,

physical abuse of teachers, student verbal abuse of teachers, widespread disorder in the classroom, student acts of disrespect toward teachers, and gang activities.

All nine of the statistically significant differences between traditional public and charter schools suggest traditional public school safety advantages. Charter schools are more likely to report physical conflicts among students, vandalism, student use of illegal drugs, student possession of weapons, racial tensions, bullying, verbal abuse of teachers, widespread disorder in classrooms, and disrespect for teachers. Table 3 and Table 4 do not account for differences in school, student, or respondent background characteristics. To determine which sectors have safety advantages, our main models in the results section use controls for several student and school-level background characteristics that would otherwise bias our estimates.

## Methods

We follow the methods employed by Shakeel and DeAngelis (2018). Because the dependent variables for school safety practices are binary, we use a probit model of the form:

$$Prob(SSP_i) = \alpha + \beta_1 Private_i + \beta_2 Charter_i + \beta_3 Controls_i + \mu_i$$

The binary dependent variable of interest, *School Safety Practices (SSP)*, takes on the value of one if the leader of school  $i$  reports that their school has a certain safety practice in place, and zero otherwise. This analysis includes 13 different school safety practices, including whether the school requires students to pass through metal detectors each day, has security personnel on site, uses random dog sniffs to check for drugs, requires students to wear clear backpacks, and uses security cameras on site. The binary independent variable of interest, *Private*, takes on the value of one in the given school observation is a private school and zero otherwise. The second binary independent variable of interest, *Charter*, takes on the value of one if the school is a public charter school and zero otherwise. Traditional public schools are the omitted comparison group.

We include controls for school type (K-12, high, elementary, middle, elementary/middle, middle/high, other), total student enrollment, number of minority students, number of students

eligible for the national free and reduced-price lunch program, number of English Language Learners, number of minority teachers, number of full-time teachers, and urbanicity (rural, city, town, suburb). We also control for characteristics of survey respondents including race, gender, position (principal, director, administrator, other leader, none of the above), and income.  $\mu$  represents the random error term. Because private schools may have a competitive advantage at shaping strong school culture, we expect that  $\beta_1$  will be negative, indicating that private schools are less likely to use these types of safety practices than traditional public schools. We expect that  $\beta_2$  will similarly be negative, indicating that these types of practices are less likely to occur in public charter schools than traditional public schools.

We use ordered probit regression for the analysis of school problems because the outcomes are categorical and ordered from one to eight. We focus on the first outcome category (“never happens”) in our interpretation of the results. We estimate the following model:

$$Prob(SchoolProblems_i) = \alpha + \beta_1 Private_i + \beta_2 Charter_i + \beta_3 Controls_i + \mu_i$$

The dependent variable of interest, *SchoolProblems*, takes on a whole-number value from one to eight, ordered from “happens daily” to “never happens.” We examine 13 different school problems including physical conflicts among students, student bullying, student racial tensions, student possession of weapons, student use of illegal drugs, student use of alcohol, student abuse of teachers, verbal abuse of teachers, student disrespect for teachers, vandalism, widespread disorder in the classroom, robbery or theft, and gang activities. Again, because private schools may have a competitive advantage at shaping strong school culture, we expect that  $\beta_1$  will be positive, indicating that the school problems are more likely to “never happen” in private schools than traditional public schools. We expect that  $\beta_2$  will similarly be positive, indicating that problems are more likely to “never happen” in charter schools than traditional public schools.

We also examine the relationship between private schooling and school problems after controlling for the differences in school safety practices (SSP) across sectors. This model answers the question of whether safety advantages exist even after accounting for any differences in school safety practices across sectors (e.g. dog sniffs). The ordered probit model:

$$Prob(\text{SchoolProblems}_i) = \alpha + \beta_1 \text{Private}_i + \beta_2 \text{Charter}_i + \beta_3 \text{Controls}_i + \text{SSP}_i + \mu_i$$

We expect that  $\beta_1$  and  $\beta_2$  will continue to be positive, indicating that the problems are more likely to “never” occur in private and charter schools than public schools, even after accounting for differences in restrictive practices that aim to reduce discipline problems. This preferred model also controls for differences in the number of suspensions and expulsions across schools.

## Results

### School Safety Practices and Discipline

Table 5a and Table 5b show results for school safety practices after controlling for differences in school, respondent, and student characteristics. Five out of seven statistically significant results for private schools are negative, indicating that restrictive policies are less likely to occur in private schools than traditional public schools. Relative to traditional public schools, private schools are 15 percentage points less likely to control access to school grounds, 9 percentage points less likely to use random metal detector checks, 18 percentage points less likely to use random dog sniffs for drugs, 15 percentage points less likely to use security cameras, and 30 percentage points less likely to use security personnel.

Four out of the six statistically significant results indicate that charter schools are less likely to use restrictive safety practices than traditional public schools. Relative to traditional public schools, charter schools are 47 percentage points less likely to control access to school grounds, 44 percentage points less likely to close campus during lunch, 23 percentage points less likely to use random dog sniffs, and 21 percentage points less likely to perform random sweeps for contraband. As found by Shakeel and DeAngelis (2018), private and charter schools are more likely to enforce strict dress codes and require students to wear uniforms than public schools.

**Table 5a: School Choice and School Safety Practices, Models With Basic Controls**

	Access to School Buildings	Access to School Grounds	Pass Through Metal Detectors	Random Metal Detector Checks	Close Campus During Lunch	Random Dog Sniffs for Drugs	Random Sweeps for Contra- band
<b>Private</b>	0.033 (0.431)	-0.148+ (0.072)	0.014 (0.314)	-0.087* (0.044)	-0.106 (0.164)	-0.177** (0.007)	-0.088 (0.133)
<b>Charter</b>	-0.003 (0.966)	-0.471*** (0.000)	0.004 (0.470)	-0.030 (0.680)	-0.437** (0.002)	-0.234** (0.003)	-0.208*** (0.000)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-Squared	0.1218	0.0965	0.0682	0.1457	0.1108	0.6708	0.3884
Correctly Classified (%)	97.69	63.85	99.77	97.87	76.51	93.56	84.82
N	433	426	429	422	413	419	415

*Notes:* P-values in parentheses. + p<0.10, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001. Average marginal effects from probit regression models are reported. All models weight observations by the inverse of the probability of response. LPM used for columns 1, 3, and 4 because of significant perfect predictions of failure and success. All models include controls for student, school, and respondent characteristics.

**Table 5b: School Choice and School Safety Practices, Models With Basic Controls**

	Uniforms Required	Strict Dress Code	Clear or Banned Book Bags	Badges or Picture IDs Required	Security Cameras	Security Personnel
<b>Private</b>	0.543*** (0.000)	0.382*** (0.000)	0.019 (0.317)	0.040 (0.399)	-0.149* (0.016)	-0.302*** (0.000)
<b>Charter</b>	0.269* (0.023)	0.277* (0.046)	0.129 (0.141)	0.064 (0.470)	-0.189 (0.125)	0.055 (0.690)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
R-Squared	0.5505	0.2577	0.1959	0.1942	0.2047	0.3343
Correctly Classified (%)	85.55	76.76	97.67	91.53	89.70	81.32
N	429	426	430	413	427	423

*Notes:* P-values in parentheses. + p<0.10, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001. Average marginal effects from probit regression models are reported. All models weight observations by the inverse of the probability of response. LPM used for column 3 because of significant perfect predictions of failure and success. All models include controls for student, school, and respondent characteristics.

Table 6 shows differences in suspensions and expulsions across the three sectors. When only controlling for total enrollment, we find that on average private schools expel about one fewer child than traditional public schools, and private schools on average suspend about 43 fewer children than traditional public schools. However, these differences become statistically indistinguishable from zero once controls for school, student, and respondent characteristics are added. None of the models show differences in student suspensions and expulsions between charter schools and traditional public schools. Some school choice critics claim that schools of choice are only safer than traditional public schools because they have the freedom to expel or suspend children with the greatest behavioral issues (e.g., Welner, 2013; Zimmer & Guarino, 2013), but we could not detect in our data any differences across the three school sectors in Indiana. In fact, the only significant results in Table 6 suggest that private schools may actually be more inclusive than public schools by having lower propensities to expel or suspend students.

**Table 6: School Choice and School Discipline**

	<b>Expulsions</b>	<b>Suspensions</b>	<b>Expulsions</b>	<b>Suspensions</b>
<b>Private</b>	-0.821* (0.016)	-42.708*** (0.000)	-0.046 (0.948)	-9.165 (0.303)
<b>Charter</b>	-0.388 (0.496)	46.48 (0.121)	-0.120 (0.906)	50.883 (0.170)
Controls	No	No	Yes	Yes
R-Squared	0.0073	0.0663	0.3725	0.4118
N	507	427	384	337

*Notes:* P-values in parentheses. +  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . Average marginal effects from ordinary least squares regression are reported. All models weight observations by the inverse of the probability of response. Models in columns 1 and 2 control for total enrollment. Models in columns 3 and 4 include controls for student, school, and respondent characteristics.

## School Safety Problems

Traditional public schools are more likely to use restrictive school safety practices than private schools, but that could be for good reason. Traditional public schools may achieve more

safety than choice schools by using such policies. This brings us to our main research question: Which school sectors have fewer safety problems? Table 7a and Table 7b show results for school safety problems after controlling for differences in school, respondent, and student characteristics.

**Table 7a: School Choice and School Problems (Never Happens), Models With Basic Controls**

	<b>Physical Conflicts</b>	<b>Robbery or Theft</b>	<b>Vandalism</b>	<b>Use of Alcohol</b>	<b>Use of Illegal Drugs</b>	<b>Possession of Weapons</b>	<b>Physical Abuse of Teachers</b>
<b>Private</b>	0.177** (0.003)	0.237** (0.002)	0.203** (0.008)	0.104+ (0.094)	-0.013 (0.848)	0.231*** (0.000)	0.319*** (0.000)
<b>Charter</b>	-0.046+ (0.057)	0.114 (0.354)	0.094 (0.532)	0.105 (0.228)	0.046 (0.646)	-0.081 (0.647)	0.275*** (0.000)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-Squared	0.0948	0.1233	0.0891	0.2711	0.2514	0.1781	0.1892
N	433	431	433	433	433	433	432

*Notes:* P-values in parentheses. + p<0.10, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001. Average marginal effects are reported for the last outcome category of “never happens.” All models weight observations by the inverse of the probability of response. All models include controls for student, school, and respondent characteristics.

**Table 7b: School Choice and School Problems (Never Happens), Models With Basic Controls**

	<b>Racial Tensions</b>	<b>Bullying</b>	<b>Verbal Abuse of Teachers</b>	<b>Widespread Disorder in Classroom</b>	<b>Disrespect for Teachers</b>	<b>Gang Activities</b>
<b>Private</b>	0.174* (0.031)	0.010 (0.727)	0.467*** (0.000)	0.278*** (0.000)	0.127** (0.003)	0.139*** (0.000)
<b>Charter</b>	0.105 (0.402)	-0.047** (0.006)	0.130 (0.267)	-0.149 (0.206)	-0.015 (0.227)	0.148*** (0.000)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
R-Squared	0.0751	0.0512	0.0981	0.1050	0.0726	0.2387
N	433	433	432	433	433	432

*Notes:* P-values in parentheses. + p<0.10, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001. Average marginal effects are reported for the last outcome category of “never happens.” All models weight observations by the inverse of the probability of response. All models include controls for student, school, and respondent characteristics.

For school safety issues, 11 of 13 statistically significant results indicate that private school leaders are more likely than traditional public school leaders to report “never” having problems. Relative to public school leaders, private school leaders are 18 percentage points more likely to report never having physical conflicts among students than public school leaders, 24 percentage points more likely to report never having robbery or theft, 20 percentage points more likely to report never having vandalism, 10 percentage points more likely to report never having students use alcohol, 23 percentage points more likely to report never having students possess weapons, 32 percentage points more likely to report never having students physically abuse teachers, 17 percentage points more likely to report never having student racial tensions, 47 percentage points more likely to report never having students verbally abuse teachers, 28 percentage points more likely to report never having widespread disorder in the classroom, 13 percentage points more likely to report never having students disrespect teachers, and 14 percentage points more likely to report never having gang activities. No result suggests that traditional public schools are safer than private schools by the measures surveyed.

Only four statistically significant differences emerge between public charter schools and traditional public schools. Two of them indicate a charter school safety advantage while two of them indicate a traditional public school safety advantage; however, the two charter school safety advantages are much larger in magnitude than the traditional public school advantages. Specifically, relative to traditional public school leaders, charter school leaders are 28 percentage points more likely to report never having students abuse teachers and 15 percentage points more likely to report never having gang activities. Charter school leaders are 5 percentage points less likely to report never having students physically fighting and 5 percentage points less likely to report never having student bullying.

As expected, statistically significant control variables indicate that middle schools and high schools are more likely to experience school safety problems than elementary schools. Safety problems are more likely to occur in schools with higher proportions of students that qualify for FRL. Schools located in rural areas tend to have fewer safety problems than schools located in the inner city. While total enrollment is generally unrelated to school problems, bigger schools tend to have fewer bullying problems.

It is possible that private schools are safer because they have more freedom to discipline the kids that are creating the most problems at school. Another possible explanation may be that private schools are better resourced and therefore have more strict disciplinary practices at their disposal. Our next set of models account for potential school safety advantages by controlling for differences in the types of safety practices used across sectors. Table 8a and Table 8b report results after controlling for differences in school-level safety policies and differences in suspensions and expulsions.

**Table 8a: School Choice and School Problems (Never Happens), Models With Basic Controls**

	<b>Physical Conflicts</b>	<b>Robbery or Theft</b>	<b>Vandalism</b>	<b>Use of Alcohol</b>	<b>Use of Illegal Drugs</b>	<b>Possession of Weapons</b>	<b>Physical Abuse of Teachers</b>
<b>Private</b>	0.178* (0.012)	0.231* (0.027)	0.173+ (0.098)	-0.036 (0.675)	-0.118 (0.164)	0.228* (0.016)	0.417*** (0.000)
<b>Charter</b>	0.016 (0.812)	0.112 (0.446)	0.310 (0.111)	-0.002 (0.986)	-0.158 (0.232)	-0.079 (0.702)	0.402*** (0.000)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SSP	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-Squared	0.1310	0.2172	0.1926	0.4513	0.3807	0.2823	0.2831
N	295	293	295	295	295	295	294

*Notes:* P-values in parentheses. + p<0.10, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001. Average marginal effects are reported for the last outcome category of “never happens.” All models weight observations by the inverse of the probability of response. All models include controls for student, school, and respondent characteristics. All models also control for school safety practices, suspensions, and expulsions. Respondent race control variable dropped from columns 5 and 6 because of convergence issues.

**Table 8b: School Choice and School Problems (Never Happens), Models With Basic Controls**

	<b>Racial Tensions</b>	<b>Bullying</b>	<b>Verbal Abuse of Teachers</b>	<b>Widespread Disorder in Classroom</b>	<b>Disrespect for Teachers</b>	<b>Gang Activities</b>
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<b>Private</b>	0.166 (0.142)	-0.010 (0.741)	0.486*** (0.000)	0.265** (0.003)	0.052 (0.132)	0.217*** (0.000)
<b>Charter</b>	0.303* (0.021)	-0.052* (0.032)	0.238 (0.107)	0.074 (0.604)	-0.030* (0.043)	0.189*** (0.000)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
SSP	Yes	Yes	Yes	Yes	Yes	Yes
R-Squared	0.1437	0.0751	0.1703	0.2061	0.1337	0.3876
N	295	295	294	295	295	294

*Notes:* P-values in parentheses. +  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . Average marginal effects are reported for the last outcome category of “never happens.” All models weight observations by the inverse of the probability of response. All models include controls for student, school, and respondent characteristics. All models also control for school safety practices, suspensions, and expulsions. Respondent race control variable dropped from columns 1, 3, and 6 because of convergence issues.

Eight out of thirteen outcomes remain statistically significant and in favor of private schools. The coefficients also remain large, suggesting that differences in disciplinary policies are not leading to private sector advantages. Three out of five statistically significant results indicate charter school advantages. Each of these benefits exceed 18 percentage points in size, while each of the two traditional public school advantages are less than 6 percentage points in size, suggesting an overall charter school advantage relative to traditional public schools.

There are a few possible explanations why advantages remain after controlling for differences in school disciplinary practices across sectors. For example, private schools may be more efficient at employing these types of disciplinary practices. Private schools may also have a systemic advantage at creating a strong school culture—after all, students may be less likely to act out if they are in schools that they chose explicitly. Private schools may have a competitive advantage creating a safe and interesting learning environment because families tend to choose their schools based on safety, culture, and mission (Holmes Erickson, 2017).

## Subgroup Analyses

We next conduct subgroup analyses based on (1) whether private schools participate in private school choice programs, (2) whether private schools are located in Indianapolis—the largest city in Indiana—and (3) school level (elementary, high, or other). Each of these subgroup analyses uses our most robust model with all controls.

## **Private School Choice Program School Participants**

Five studies find that the lower-quality private schools in D.C., Florida, Indiana, Louisiana, Ohio, Milwaukee, and Chile—as measured by enrollment trends, customer reviews, and tuition levels—tend to be more likely to participate in voucher programs (Abdulkadiroğlu, Pathak, & Walters, 2018; DeAngelis, Burke, & Wolf, 2018; DeAngelis & Hoarty, 2018; Sánchez, 2018; Sude, DeAngelis, & Wolf, 2018). Our data allow us to examine a related question using a new metric—school safety. We examine if there are differences in school safety between private schools that participate in Indiana’s private school choice programs and private schools that do not participate.

Table 9a and Table 9b estimate our models using a new set of comparison groups. It distinguishes between private schools that elected to participate in either of Indiana’s private school choice programs and compares each of these groups to traditional public schools (“choice” private schools) and private schools that do not participate in these programs (“non-choice” private schools). As shown in the tables, nine out of the 13 measures are statistically significant and favorable for non-choice private schools relative to traditional public schools, while only eight are statistically significant and favorable for private schools (relative to traditional public schools) that participate in choice programs in Indiana. In addition, all six statistically significant heterogeneous effects indicate that safety advantages are larger for non-choice private schools than choice private schools.

**Table 9a: School Choice and School Problems (Never Happens), Models With Full Set Of Controls**

	<b>Physical Conflicts</b>	<b>Robbery or Theft</b>	<b>Vandalism</b>	<b>Use of Alcohol</b>	<b>Use of Illegal Drugs</b>	<b>Possession of Weapons</b>	<b>Physical Abuse of Teachers</b>
<b>Non-Choice</b>	0.190* (0.002)	0.656*** (0.000)	0.709** (0.002)	0.166 (0.137)	-0.102 (0.395)	1.428*** (0.000)	1.059*** (0.000)
<b>Choice</b>	0.174* (0.014)	0.194* (0.033)	0.146 (0.124)	-0.046 (0.571)	-0.115 (0.152)	0.283+ (0.085)	0.853*** (0.000)
<b>Difference</b>	-0.054 (0.296)	-0.462*** (0.000)	-0.563** (0.008)	-0.212* (0.017)	-0.014 (0.883)	-1.428*** (0.000)	-0.206 (0.148)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SSP	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-Squared	0.1314	0.2279	0.2058	0.4558	0.3808	0.2848	0.2850
N	295	293	295	295	295	295	294

Notes: P-values in parentheses. +  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . Average marginal effects are reported for the last outcome category of “never happens.” All models weight observations by the inverse of the probability of response. All models include controls for student, school, and respondent characteristics. All models also control for charter, school safety practices, suspensions, and expulsions. Respondent race control variable dropped from columns 5 and 6 because of convergence issues.

**Table 9b: School Choice and School Problems (Never Happens), Models With Full Set Of Controls**

	<b>Racial Tensions</b>	<b>Bullying</b>	<b>Verbal Abuse of Teachers</b>	<b>Widespread Disorder in Classroom</b>	<b>Disrespect for Teachers</b>	<b>Gang Activities</b>
<b>Non-Choice</b>	0.488*** (0.023)	0.067 (0.242)	0.524*** (0.000)	0.329+ (0.067)	0.043 (0.300)	0.960*** (0.000)
<b>Choice</b>	0.162 (0.184)	-0.014 (0.660)	0.429*** (0.000)	0.310** (0.005)	0.044+ (0.083)	0.477*** (0.000)
<b>Difference</b>	-0.326+ (0.069)	-0.081 (0.122)	-0.095 (0.407)	-0.019 (0.898)	0.001 (0.983)	-0.483*** (0.000)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
SSP	Yes	Yes	Yes	Yes	Yes	Yes
R-Squared	0.1549	0.0770	0.1708	0.1931	0.1337	0.3905
N	295	295	294	295	295	294

Notes: P-values in parentheses. +  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . Average marginal effects are reported for the last outcome category of “never happens.” All models weight observations by the inverse of the probability of response. All models include controls for student, school, and respondent characteristics. All models also control for school safety practices, suspensions, and expulsions. Respondent race control variable dropped from columns 1, 3, 4, and 6 because of convergence issues.

**Table 10: School Choice and School Discipline**

	<b>Expulsions</b>	<b>Suspensions</b>	<b>Expulsions</b>	<b>Suspensions</b>
<b>Non-Choice</b>	-1.481*** (0.000)	-46.578*** (0.000)	-1.278 (0.412)	6.334 (0.683)
<b>Choice</b>	-0.718* (0.050)	-42.023*** (0.000)	0.058 (0.933)	-10.343 (0.250)
Difference	0.764** (0.008)	4.555+ (0.077)	1.335 (0.310)	-16.678 (0.244)
Controls	No	No	Yes	Yes
R-Squared	0.0082	0.0664	0.3741	0.4125
N	507	427	384	337

*Notes:* P-values in parentheses. +  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . Average marginal effects from ordinary least squares regression are reported. All models weight observations by the inverse of the probability of response. Models in columns 1 and 2 control for total enrollment. Models in columns 3 and 4 also include controls for student, school, and respondent characteristics.

Table 10 reports estimated differences in reported expulsion and suspension rates between traditional public schools and choice or non-choice private schools. The first two columns control for total school enrollment while the last two columns also include controls for charter school and school, respondent, and student characteristics. When enrollment is the only control used, non-choice schools suspend and expel fewer students than choice private schools; however, these differences are not statistically different from zero in the models using all control variables.

Full subgroup results based on whether the private school is located in Indianapolis and based on school level can be found in the tables in Appendix 4 and Appendix 5. These results generally suggest that private school safety advantages hold inside and outside of Indianapolis and across school levels. Private elementary schools tend to have the strongest safety advantages.

## Conclusion

We collected data from 618 school leaders in Indiana to empirically examine the relationships between schools of choice on the presence of school safety related practices and problems occurring at school. Controlling for student, school, and respondent factors, results from our most robust models suggest that private schools and public charter schools are less likely to use school safety practices that restrict students than traditional public schools. Private

school leaders are also more likely than traditional public school leaders to report “never” having problems such as physical conflicts among students, theft, vandalism, students possessing weapons, student physically abusing teachers, racial tensions, students verbally abusing teachers, widespread disorder in classrooms, disrespect for teachers by students, and gang activities. Charter school leaders are more likely to report “never” having problems such as physical abuse of teachers, racial tensions, and gang activities—but less likely to report “never” having problems such as student disrespect of teachers and bullying—than traditional public school leaders. Private schools that elect not to participate in school choice programs tend to exhibit larger safety benefits than private schools that do not participate. We cannot conclude that there are differences in expulsion and suspension rates in schools across sectors.

Parents choose schools for a number of different reasons. Based on parent surveys, a safe environment is among the top reasons (Bedrick & Burke, 2018; Catt & Rhinesmith, 2017; Holmes Erickson, 2017; Kelly & Scafidi, 2013). School safety plays an important role in creating positive school environments, and our results suggest that school sector may also play an important role. Further research is needed to better understand short-run and long-run consequences of school problems and how school safety and school sector might affect students’ academic and life trajectories.

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# Appendix 1

## Survey Project and Profile

<b>Title:</b>	Are Choice Schools Safe Schools?
<b>Survey Funder:</b>	EdChoice
<b>Survey Data Collection and Quality Control:</b>	Hanover Research
<b>Interview Dates:</b>	September 12 to October 4, 2018
<b>Sample Frames:</b>	Traditional public, public charter, and private school staff and administrators in Indiana
<b>Sampling Method:</b>	Non-probability-based, opt-in participation
<b>Language(s):</b>	English
<b>Interview Method:</b>	Online emailed survey
<b>Interview Length:</b>	9 minutes (average)
<b>Sample Size and Margin of Error:</b>	Total N = 618; MOE = $\pm 3.4$ percentage points
<b>Response Rate:</b>	21.8%
<b>Weighting:</b>	No
<b>Oversampling:</b>	No
<b>Project Contact:</b>	Corey A. DeAngelis, <a href="mailto:corey.deangelis@gmail.com">corey.deangelis@gmail.com</a>

The authors are responsible for overall survey design; question wording and ordering; this report's analysis, charts, and writing; and any unintentional errors or misrepresentations.

EdChoice is the survey's sponsor and sole funder at the time of publication.

## Appendix 2

### School Safety Practices Overall Results without Controls

Table A1(a): School Choice and School Safety Practices, Models With No Controls

	Access to School Buildings	Access to School Grounds	Pass Through Metal Detectors	Random Metal Detector Checks	Close Campus During Lunch	Random Dog Sniffs for Drugs	Random Sweeps for Contra- band
<b>Private</b>	-0.015 (0.230)	-0.086* (0.039)	0.004 (0.318)	-0.047*** (0.000)	-0.092* (0.015)	-0.237*** (0.000)	-0.082** (0.010)
<b>Charter</b>	-0.069 (0.139)	-0.161+ (0.065)	0.028 (0.312)	0.006 (0.882)	-0.329*** (0.000)	-0.247*** (0.000)	-0.106+ (0.064)
Controls	No	No	No	No	No	No	No
R-Squared	0.0256	0.0052	0.0125	0.0403	0.0157	0.0448	0.0135
Correctly Classified (%)	97.57	59.42	100.00	96.67	73.71	74.75	82.09
N	618	616	614	601	601	606	603

Notes: P-values in parentheses. + p<0.10, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001. Average marginal effects from linear probability models are reported. All models weight observations by the inverse of the probability of response. LPM used for column 3 because Traditional Public School perfectly predicted failure.

**Table A1(b): School Choice and School Safety Practices, Models With No Controls**

	<b>Uniforms Required</b>	<b>Strict Dress Code</b>	<b>Clear or Banned Book Bags</b>	<b>Badges or Picture IDs Required</b>	<b>Security Cameras</b>	<b>Security Personnel</b>
<b>Private</b>	0.525*** (0.000)	0.320*** (0.000)	-0.022+ (0.075)	0.022 (0.372)	-0.160*** (0.000)	-0.409*** (0.000)
<b>Charter</b>	0.597*** (0.000)	0.260** (0.002)	0.132* (0.036)	0.141* (0.046)	-0.090 (0.127)	-0.014 (0.871)
Controls	No	No	No	No	No	No
R-Squared	0.2873	0.0522	0.0351	0.0080	0.0795	0.0895
Correctly Classified (%)	78.73	64.82	96.57	90.24	88.47	66.45
N	616	614	613	615	616	614

*Notes:* P-values in parentheses. +  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . Average marginal effects from linear probability models are reported. All models weight observations by the inverse of the probability of response.

# Appendix 3

## School Problems Overall Results without Controls

**Table A2(a): School Choice and School Problems (Never Happens) , Models With No Controls**

	<b>Physical Conflicts</b>	<b>Robbery or Theft</b>	<b>Vandalism</b>	<b>Use of Alcohol</b>	<b>Use of Illegal Drugs</b>	<b>Possession of Weapons</b>	<b>Physical Abuse of Teachers</b>
<b>Private</b>	0.245*** (0.000)	0.211*** (0.000)	0.186*** (0.000)	0.039 (0.298)	0.051 (0.211)	0.285*** (0.000)	0.235*** (0.000)
<b>Charter</b>	-0.025 (0.381)	0.032 (0.717)	-0.012 (0.893)	0.100 (0.175)	-0.114 (0.234)	-0.113 (0.275)	-0.029 (0.759)
Controls	No	No	No	No	No	No	No
R-Squared	0.0403	0.0165	0.0195	0.0014	0.0017	0.0527	0.0364
N	605	603	605	605	604	604	604

Notes: P-values in parentheses. + p<0.10, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001. Average marginal effects are reported for the last outcome category of “never happens.” All models weight observations by the inverse of the probability of response.

**Table A2(b): School Choice and School Problems (Never Happens) , Models With No Controls**

	<b>Racial Tensions</b>	<b>Bullying</b>	<b>Verbal Abuse of Teachers</b>	<b>Widespread Disorder in Classroom</b>	<b>Disrespect for Teachers</b>	<b>Gang Activities</b>
<b>Private</b>	0.070+ (0.089)	0.019 (0.163)	0.370*** (0.000)	0.148*** (0.000)	0.096*** (0.000)	0.086*** (0.000)
<b>Charter</b>	-0.101 (0.233)	-0.035* (0.023)	-0.072 (0.185)	-0.346*** (0.000)	-0.031*** (0.000)	-0.049 (0.420)
Controls	No	No	No	No	No	No
R-Squared	0.0024	0.0020	0.0397	0.0163	0.0194	0.0154
N	605	605	604	605	605	604

Notes: P-values in parentheses. + p<0.10, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001. Average marginal effects are reported for the last outcome category of “never happens.” All models weight observations by the inverse of the probability of response.

# Appendix 4

## Subgroup Results: Indianapolis

**Table A3(a): School Choice and School Problems (Never Happens), By Location in Indianapolis**

	Physical Conflicts	Robbery or Theft	Vandalism	Use of Alcohol	Use of Illegal Drugs	Possession of Weapons	Physical Abuse of Teachers
<b>Indianapolis Private</b>	0.253** (0.003)	0.322* (0.032)	0.020 (0.898)	0.327 (0.545)	-0.072 (0.519)	-0.199 (0.290)	0.918*** (0.000)
<b>Other Private</b>	0.124** (0.008)	0.194* (0.043)	0.190* (0.049)	0.339 (0.434)	-0.121 (0.136)	0.304+ (0.095)	0.866*** (0.000)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SSP	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-Squared	0.1393	0.2202	0.1946	0.3916	0.3813	0.2830	0.2934
N	295	293	295	295	295	295	294

*Notes:* P-values in parentheses. +  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . Average marginal effects are reported for the last outcome category of “never happens.” All models weight observations by the inverse of the probability of response. All models include controls for school, respondent, and student characteristics. All models also control for charter, school safety practices, suspensions, expulsions, and whether the school is located in Indianapolis. Respondent race control variable dropped from columns 5 and 6 because of convergence issues. All respondent controls dropped from column 4 because of convergence issues.

**Table A3(b): School Choice and School Problems (Never Happens), By Location in Indianapolis**

	<b>Racial Tensions</b>	<b>Bullying</b>	<b>Verbal Abuse of Teachers</b>	<b>Widespread Disorder in Classroom</b>	<b>Disrespect for Teachers</b>	<b>Gang Activities</b>
<b>Indianapolis Private</b>	0.122 (0.562)	0.061 (0.306)	0.702*** (0.000)	0.262 (0.110)	0.078+ (0.086)	0.846*** (0.000)
<b>Other Private</b>	0.211+ (0.085)	-0.022 (0.502)	0.407*** (0.000)	0.307** (0.008)	0.040 (0.122)	0.460*** (0.000)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
SSP	Yes	Yes	Yes	Yes	Yes	Yes
R-Squared	0.1528	0.0772	0.1901	0.2071	0.1420	0.3953
N	295	295	294	295	295	294

*Notes:* P-values in parentheses. +  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . Average marginal effects are reported for the last outcome category of “never happens.” All models weight observations by the inverse of the probability of response. All models include controls for school, respondent, and student characteristics. All models also control for charter, school safety practices, suspensions, expulsions, and whether the school is located in Indianapolis. Respondent race control variable dropped from column 6 because of convergence issues.

**Table A4: School Choice and School Discipline, By Location in Indianapolis**

	<b>Expulsions</b>	<b>Suspensions</b>	<b>Expulsions</b>	<b>Suspensions</b>
<b>Indianapolis Private</b>	-0.435 (0.483)	-92.451*** (0.000)	1.087 (0.325)	-30.324 (0.319)
<b>Other Private</b>	-0.861* (0.023)	-38.968*** (0.000)	-0.018 (0.979)	-4.777 (0.580)
Controls	No	No	Yes	Yes
R-Squared	0.0076	0.0942	0.3444	0.3974
N	507	427	384	337

*Notes:* P-values in parentheses. +  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . Average marginal effects from ordinary least squares regression are reported. All models weight observations by the inverse of the probability of response. Models in columns 1 and 2 control for total enrollment. Models in columns 3 and 4 include all control for charter and school, respondent, and student characteristics. All models control for whether the school is located in Indianapolis.

# Appendix 5

## Subgroup Results: School Level

Table A5(a): School Choice and School Problems (Never Happens), Results By School Level

	Physical Conflicts	Robbery or Theft	Vandalism	Use of Alcohol	Use of Illegal Drugs	Possession of Weapons	Physical Abuse of Teachers
<b>High School Private</b>	0.094 (0.326)	0.262 (0.102)	0.032 (0.855)	-0.195 (0.111)	-0.199 (0.106)	0.317 (0.232)	0.551* (0.025)
<b>Elementary Private</b>	0.132** (0.009)	0.193+ (0.063)	0.216* (0.037)	1.572*** (0.000)	0.007 (0.959)	0.362 (0.109)	0.843*** (0.000)
<b>Other Private</b>	0.177* (0.025)	0.234+ (0.098)	0.085 (0.668)	-0.009 (0.939)	-0.166 (0.148)	0.071 (0.731)	1.016*** (0.000)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SSP	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-Squared	0.1317	0.2174	0.1941	0.4627	0.3838	0.2851	0.2880
N	295	293	295	295	295	295	294

Notes: P-values in parentheses. + p<0.10, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001. Average marginal effects are reported for the last outcome category of “never happens.” All models weight observations by the inverse of the probability of response. All models include controls for school, respondent, and student characteristics. All models also control for charter, school safety practices, suspensions, and expulsions. Respondent race control variable dropped from columns 4, 5, and 6 because of convergence issues.

**Table A5(b): School Choice and School Problems (Never Happens), Results By School Level**

	<b>Racial Tensions</b>	<b>Bullying</b>	<b>Verbal Abuse of Teachers</b>	<b>Widespread Disorder in Classroom</b>	<b>Disrespect for Teachers</b>	<b>Gang Activities</b>
<b>High School Private</b>	0.020 (0.936)	0.041 (0.511)	0.225 (0.111)	0.399* (0.041)	0.034 (0.458)	0.529*** (0.000)
<b>Elementary Private</b>	0.129 (0.312)	-0.040 (0.248)	0.458*** (0.000)	0.178+ (0.099)	0.039 (0.165)	0.709*** (0.000)
<b>Other Private</b>	0.383* (0.015)	0.053 (0.351)	0.530*** (0.000)	0.585*** (0.000)	0.063 (0.177)	0.431*** (0.000)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
SSP	Yes	Yes	Yes	Yes	Yes	Yes
R-Squared	0.1477	0.0779	0.1731	0.2130	0.1340	0.3888
N	295	295	294	295	295	294

*Notes:* P-values in parentheses. + p<0.10, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001. Average marginal effects are reported for the last outcome category of “never happens.” All models weight observations by the inverse of the probability of response. All models include controls for school, respondent, and student characteristics. All models also control for charter, school safety practices, suspensions, and expulsions. Respondent race control variable dropped from columns 1, 3, and 6 because of convergence issues.

**Table A6: School Choice and School Discipline, Results By School Level**

	<b>Expulsions</b>	<b>Suspensions</b>	<b>Expulsions</b>	<b>Suspensions</b>
<b>High School Private</b>	-4.066*** (0.001)	-86.051*** (0.001)	-3.679* (0.038)	-64.645** (0.004)
<b>Elementary Private</b>	-0.090 (0.555)	-34.978*** (0.000)	0.821 (0.121)	9.665 (0.330)
<b>Other Private</b>	0.611 (0.725)	-73.745*** (0.000)	0.385 (0.700)	-19.054 (0.332)
Controls	No	No	Yes	Yes
R-Squared	0.2298	0.2596	0.3501	0.4057
N	507	427	384	337

*Notes:* P-values in parentheses. + p<0.10, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001. Average marginal effects from ordinary least squares regression are reported. All models weight observations by the inverse of the probability of response. Models in columns 1 and 2 control for total enrollment. Models in columns 3 and 4 include all control for charter and school, respondent, and student characteristics. All models control for school level.

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