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The Hidden Cost of School Security

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ABSTRACT

A spate of school shootings in the U.S. has prompted policymakers to address the public's growing perception that our schools are unsafe. As education policymakers continue to press for additional security initiatives, it is important to understand the costs borne by school systems for these programs. Thus far, the scholarly literature is silent on this issue and the professional literature and mass media offer only anecdotal accounts. Using financial data from Texas and the National Center for Education Statistics' (NCES) School Survey on Crime and Safety, this study reveals how much districts spend on security, how they use those resources, and the extent to which spending differs across districts, thereby providing a comprehensive and more refined account of school security costs than is presently available.

INTRODUCTION

The No Child Left Behind Act of 2001 (NCLB) served to underscore two principal issues that vexed educational policymakers and practitioners at the close of the 20th century. The first was academic standards-based reform. Though many states had already implemented standardized testing systems during the previous decade, NCLB made certain that performance assessment and accountability would play a prominent role in all states (Guthrie and Schuermann 2010). A second component of the legislation sought to address concerns about school safety. The Act requires that schools report violent incidents, and those that exceed state-defined thresholds be labeled "persistently dangerous"—a designation that affords students the option to transfer to another school. NCLB

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also reauthorized the Safe and Drug-Free Schools and Communities Act (1994), which funds violence prevention programs, and the Gun-Free Schools Act (1994), which specifies sanctions for students who possess firearms on school grounds (Hutton and Bailey 2007).

The fact that NCLB brought such forceful policy to bear on school violence and safety is likely a consequence of multiple factors. The first, and perhaps most obvious, is that the century closed with a spate of highly publicized school shootings that were seemingly unprecedented in malice and scale (Midlarsky and Klain 2005; Cullen 2009). Mass media offered insight into the effect such events had on the participants (McCabe and Martin 2005), while pollsters and researchers probed stakeholders' perceptions of school violence and safety more broadly. A Gallup Poll taken soon after Columbine indicated that 55% of parents feared for their child's physical safety at school (Lyons 2002). Though concerns sharply rise immediately following such sensational school shootings, a recent Gallup poll indicated that about one-quarter of respondents fear for their child's safety even during latent periods (Caroll 2007).

Measures of students' perceptions of their personal safety also emerged in the 1990s. Since 1999, the NCES and Bureau of Justice Statistics (BJS) have reported the percentage of 12–18 year olds surveyed who indicated "being afraid of attack or harm at school" (NCES 2010). Other researchers have conducted more nuanced examinations of students' perceptions of school security at the elementary, middle, or secondary level, finding that students feel safe generally, though small percentages report victimization by bullying, theft or the destruction of personal property, as contrasted to physical violence (Haselswerdt and Lenhardt 2003; Carney, Shannon, and Murphy 2005).

Researchers have also investigated teachers' and administrators' perceptions of school violence. For example, Williams and Corvo (2005) found that pre-service teachers were more concerned about school violence than practicing teachers, and also were more likely to perceive that they would encounter a highly violent act such as a gun incident or rape at school (see also, White and Beal 1999; Markow and Cooper 2008; NCES 2010). McAdams and Foster (2008) surveyed a national sample of principals, finding that most feared for their own safety while at school and 10% reported being a victim of student violence.

Another factor that focused policymakers' attention on school violence in the late 1990s was an improved understanding of how victimization affects students and educators. One could, of course, point to the decades old "effective schools literature" for insight into the relationship between constructs of safety and student achievement (Purkey and Smith 1983). The newer work, however, brought more theoretically sophisticated lenses to bear on the issue. Cornell and Mayer (2010), for example, offered a multi-discipline review of studies that

found links between measures of students' real and perceived victimization, psychosocial well-being (e.g., depression and anxiety), and short and long-term academic performance (e.g., test scores and graduation) (see also, Ripski and Gregory 2009; Borum et al. 2010; Swearer et al. 2010). Researchers have also found associations between teachers' and administrators' concerns about personal safety and their engagement, attitude toward students, and job and career choices (Hastings and Bham 2003; McAdams and Foster 2008).

Like studies that use stakeholders' perceptions to draw conclusions about the prevalence of school violence, scholars question how well people understand the effects of victimization on students and staff (Juvonen 2001; Johnson et al. 2002; Schreck and Miller 2003; Skiba, Simmons et al. 2004; Cornell 2006; Astor, Guerra, and Van Acker 2010; Mayer and Furlong 2010). Nevertheless, for many policymakers and the public, perceptions remain the bellwether of the extent of school violence, and safety the *sine qua non* of successful schools (Cornell and Mayer 2010). Like NCLB, a review of state legislative activity over the past two decades demonstrates convincingly local policymakers' want to improve school safety (Education Commission of the States 1999, 2009). These initiatives have yielded a bevy of strategies that schools could employ to reduce violence, including classroom management training for teachers, behavioral support programs for students, and the use of security equipment and personnel (Thomas 2006; California School Boards Association 1999; Funck 1999; Osher et al. 2010).

Notwithstanding students' and staffs' concerns or the efficacy of safety efforts generally, it is surprising that education policymakers continue to press for additional security initiatives with little understanding of the costs borne by schools for extant programs and practices. Thus far, the scholarly literature is silent on the costs of school safety and the professional literature and mass media offer only anecdotal accounts of district-level expenditures for metal detectors, security guards, or other means to safeguard students, staff, and property. Well-meaning calls to enhance school safety and security, therefore, invite questions of equity and efficiency in the allocation of these resources. After all, resources devoted to mandated or elective safety efforts necessarily draw from other, perhaps more productive, educational activities—a more vexing phenomenon when one considers current budget shortfalls and the marked inter-district revenue disparities that exist between and within most states.

LITERATURE REVIEW

We have alluded to the paucity of work on the costs of school safety and security. Perhaps, the explanation for this absence is that identifying and measuring the

resources that districts or schools devote to these purposes is difficult. Although the NCES has promulgated guidelines so that state and local educators can account more clearly for such expenditures, state fiscal reporting policies and practices vary, and few states specify distinct budget codes for safety and security (NCES 2009). In addition, as this study reveals, generally accepted accounting standards require that districts expense security equipment in the year purchased, obscuring the actual annualized cost of these resources over their useful life.

Despite these difficulties, there are four, albeit limited, literatures that consider the costs of school safety and security. First, a series of reports have sought to document the prevalence of school safety and security measures. The NCES' School Survey on Crime and Safety, for example, queries public school principals about their use of various practices, such as security cameras and metal detectors, revealing a steady increase in the use of a number of security measures during the 2000s (NCES 2010). Professional associations and state agencies have conducted similar surveys (Hess 2002; Cooper and Beatty 2006; McCarter 2008). Though these efforts offer needed insight into the percentage of schools that employ various safety and security strategies, an indication that a school uses a given strategy, say, security guards or cameras, does not reveal its cost. Indeed, the number of guards and cameras used likely varies among schools because of enrollment, need, or fiscal capacity, and by extension—so too would total cost to support these measures.

Second, there is a vast literature that examines the efficacy of various approaches to school safety and security, and a seemingly comparable number of handbooks describing how to implement these strategies (Adams 2000; Trump 2000; Knowles 2001; Davis et al. 2003; Wetterneck, Sass, and Davies 2004; Thomas 2006; Centers for Disease Control and Prevention 2007, 2008; Granberg-Rademacker, Bumgarner, and Johnson 2007). Most state education departments also publish guides that describe school safety and security strategies (Wilson 2009), as do several clearing houses and advocacy groups (Hamilton Fish Institute on School and Community Violence, National School Safety Center, and National Clearinghouse for Educational Facilities). What is useful about this work is that one often can glean some of the "ingredients" needed to implement a specific program or strategy, such as staff, equipment, and facility improvements (Sprague 2007; Schneider 2008). A few efforts even have assigned unit costs to various ingredients (Idaho State Department of Education n.d.; U.S. Department of Education 2002; Bartosh 2006; McCarter 2008). To impute defensibly from these works a full accounting of the resources that schools devote to safety and security is, however, another matter.

Third, education policymakers have sought to foster safe and secure schools through the provision of grants and aids. Since 1999, for example, the U.S.

Departments of Education, Health and Human Services, and Justice have provided $450 million to local education agencies through the Safe Schools/Healthy Students Initiative (U.S. Department of Education n.d.). There are also numerous examples of state-level categorical aid programs that drive resources to schools to promote safe and secure learning environments (New Jersey Department of Education 2007). Though one might be tempted to extrapolate from tallies of grant or aid expenditures the cost of school safety and security at the district or local level, one can not reasonably infer how schools ultimately put these revenues to use, or whether a given aid or grant required a local share.

Finally, no review of the cost of school safety and security would be complete without acknowledging the anecdotal accounts that appear intermittently in the mass media and professional literature. Typically, these pieces highlight the expenditures associated with a specific program or strategy, such as the use of security guards or cameras (Crosby 1999; Washington Times 2004; Batcheldor 2009; Calabro 2010; Rossi 2010; Washington 2010). The Detroit City School District, for example, recently announced plans to spend $41.7 million to upgrade their security equipment, and Chicago reported they would devote $60 million to school safety programs (Saulny 2010; Terry 2010). Others highlight the expenditures needed to remedy rather than prevent security issues, including the repair or replacement of school property following theft or vandalism, and even legal costs (Stover 1990; Washington Times 2004; Chandler 2009; Nelson 2009; Simon 2009; Hoffman 2010).

Overall, the literature reveals that little is known about the cost of school safety and security. The purpose of this article is to inform policymakers' and practitioners' understanding of the costs borne by schools to foster a secure learning environment. Specifically, this study uses data secured from the Texas Education Agency (TEA) and the NCES to answer three successive questions:

(1) What do districts spend on school security?

(2) How do districts put these resources to use—for example, security personnel or metal detectors?

(3) Does security spending differ among districts?

Answers to the first two questions extends the school finance knowledge base by disaggregating an increasing, yet little understood, component of district spending. The third question addresses whether these educational resources are distributed equitably and adequately among districts. Our intent here is to present a comprehensive and more refined account of school security costs than is presently available, as well as provoke further interest in this issue.

CONCEPTUAL ISSUES

Thus far, the terms school violence prevention, school safety, and school security have been used without reference to the conceptual differences that underlie them. In reviewing the literature, it is clear that there is little consistency in whether and how policymakers, scholars, and the mass media distinguish among these constructs. To the U.S. Departments of Justice and Education, "violent incidents" include "rape, sexual battery other than rape, physical attacks or fights with or without a weapon, threats of physical attack with or without a weapon, and robbery with or without a weapon" (NCES 2010, 156). Thomas (2006, 1) frames school violence more broadly as "*intentional* (emphasis added) actions that (a) disrupt the operation of the school's learning program; (b) cause physical harm or psychological distress for students, teachers, and other members of the staff; and/or (c) destroy property." Henry (2000, 18) expands conventional notions of school violence further by including "acts and processes of institutionalized racism or sexism, other discrimination, labeling and tracking, authoritarian discipline, militaristic approaches to school security, sexual harassment and predation." In addition, some have argued that school violence is a socially constructed term whose definition differs among ethnicities and classes, as well as gender (Benbenishty and Astor 2005; Williams 2005), further confounding efforts to establish a shared definition.

School safety is also a construct without universal meaning. Consider how differently states identify schools that are "persistently dangerous" and, by default, those that are "safe" to meet NCLB (Gastic and Gasiewski 2008). For example, some states recognize all assaults as a safety threat for purposes of NCLB, while others count only incidents that resulted in suspension or expulsion (Gastic and Gasiewski 2008; see also Elizabeth 2003). Moreover, the issue of school safety includes but is not limited to violence. Policymakers and others use the term regularly to dictate or describe schools' readiness to address matters of health (e.g., H1N1), terrorism, natural disasters, and fire.

This study focuses on school safety measures that seek to address violence, as defined by Thomas (2006)—that is, actions that disrupt the school…cause harm…or destroy property. Such measures are categorized as either *prevention activities* or *security*. Prevention activities include programs and strategies that seek to decrease the probability that students will engage in violent acts (Miller and Kraus 2008). A given intervention might address one or more known risk factors, for example, gang involvement, antisocial behavior, or ineffectual teaching or classroom management. These interventions might be applied school-wide, such as universal social skills teaching, to at-risk students (e.g., adult mentorship), or to high-risk students (e.g., behavior management plans)

(Sprague 2007). Security, also called "target hardening" (Astor, Guerra, and Van Acker 2010), are initiatives that independently or in concert make a school a less desirable target to commit an act of violence, theft, or vandalism. Security measures include the use of personnel, such as law enforcement or security guards, monitoring devices (surveillance cameras and metal detectors), and communication systems (confidential reporting system). In this study, only the costs associated with security measures are considered due to our inability to disaggregate prevention activity expenditures in the Texas dataset.

DATA AND METHODS

The Texas public school system serves as the focus of this study. Texas was selected because it is one of the few, if not the only, state that requires its districts to use a dedicated code to report security expenditures.[1] Further, Texas Education Code § 37.108 (b) requires districts to undertake a "Safety and Security Audit" at least once every three years, and to take steps to implement any recommendations that follow from this process.

The primary data source used is 2008–2009 Texas district financial data, the most recent year of actual (not budgeted) expenditure figures available from the Texas Education Agency's (TEA) Public Education Information Management System (PEIMS). The dataset covers all 1030 regular public school districts in Texas. Moreover, the dataset provides detailed district- and school-based expenditure information by major function codes, which represent the broad operational areas that districts use to categorize spending for related activities (e.g., instruction, school leadership, transportation, health services). Within each function code, expenditures are disaggregated further by object codes, which provide additional information regarding the general category of good or service purchased—for example, payroll costs for teachers and other professional personnel, contracted services, and land and building purchases and improvement. Texas districts incurred the expenditures reported in this study during the 2008–2009 accounting year (TEA 2010a).

The TEA reserves function code 52 for expenditures associated with security and monitoring services, which Texas defines as "activities to keep student and staff surroundings safe, whether in transit to or from school, on a campus or participating in school-sponsored events at another location" (TEA 2010a, 324). According to the TEA, examples of function 52 expenditures include security guards, hall monitors for security purposes, security vehicles, and supplies and equipment associated with the safekeeping of students and staff, such as metal

1. The authors wish to thank Mary Mckeown-Moak for her assistance in identifying this component of the Texas data system.

detectors and security cameras. Further, the TEA makes clear that function 52 *does not* include expenditures for security systems that are part of a smoke detector system (i.e., fire safety), truant officers, social workers, and school bus aides for special education.

The main interest in this study concerns expenditures for security as captured by function 52, although spending in other functional areas is considered as well to provide a sense of the magnitude of resources devoted to security compared to other educational activities. Because some security expenditures are unallocated or undistributed—meaning they are not attributable to a specific school and, hence, are not reflected in school-based numbers—expenditures are aggregate to the district level to obtain total spending figures.

In addition to absolute levels of security spending across Texas districts, district security expenditures on a per pupil basis and as a percentage of both total expenditures and operating expenditures are examined. District enrollment information, as well as student demographic and wealth information, came from Texas' Academic Excellence Indicator System (AEIS) (TEA n.d.). Operating expenditures and total expenditures were calculated by summing across function codes in accordance with the definitions provided in TEA (2010b). Then, the accuracy of these calculations was verified by using financial audit reports from the same year for a random sample of districts (TEA Division of School Financial Audits n.d.).

Because studies indicate that school security incidents and concerns vary across locales (NCES 2010), security expenditures by district type are also considered. Locale information was obtained from the NCES' 2008 Common Core of Data (CCD) file. The CCD's eight census-based locale categories were aggregated into four locale types for this study: (1) urban, (2) suburban (referred to by NCES as urban fringe), (3) town, and (4) rural.

Security expenditures broken down by object code using the Texas data provide only a very general sense of the types of goods and services purchased by districts in the state to secure their schools. To gain a better understanding of the actual security efforts and measures employed by schools, a second data source was utilized—namely NCES' 2007–08 School Survey on Crime and Safety (SSOCS) restricted-use data. The SSOCS, which is conducted in the spring of even years, is a cross-sectional survey of a nationally representative stratified sample of U.S. public schools that serves as a primary source of national data on crime and safety in schools. The survey asks principals to provide information about their schools on a variety of topics, including the number and types of violent incidents, the frequency of occurrence and types of disciplinary problems, the types of disciplinary actions taken, and the types of programs and practices used to promote the safety and security of students and staff (NCES 2007). The focus

is herein on principals' responses to their schools' use of security measures.

The SSOCS analyses are restricted to public schools, including magnet schools, since only regular public school districts are included in the district-level Texas analyses. Because the SSOCS sample of Texas schools is small and over-represents urban and suburban schools in the state,[2] the results for schools nationwide, which are representative of the population of regular public schools in the U.S. when weighted, are also reported.[3] While the school-level results from this SSOCS dataset do not provide a complete picture of districts' efforts to safeguard students, staff, and property, they do shed some light on what Texas schools and districts have been doing to promote school security.

Analysis of variance (ANOVA), including Bonferroni post-hoc tests, and Chi-square tests are used where appropriate to assess the statistical significance of differences across locale type. To address our third research question regarding differences in security spending among districts, bivariate correlations between security spending and characteristics of Texas districts are examined. District characteristics include locale type, total enrollment, district wealth (as measured by wealth per ADA), percent minority students, and percent low-income students as determined by eligibility for the federal free and reduced-price lunch program. Then, cross-sectional Ordinary Least Squares (OLS) regression models were used to examine security spending, as a percentage of operating expenditures as a function of the district characteristics. Of particular interest is the relationship between security spending and district wealth and its implications with regard to equity in the allocation of these resources.

FINDINGS

Spending on Security

Across all Texas districts, an average of $312,030 was spent on security in 2008–09 (Table 1). This average, though, conceals significant variation in security expenditures among districts both within and across locale type. Among urban

2. Comparing the sample of Texas schools from the SSOCS data to the population of Texas schools from CCD data for the same year, we found that a somewhat greater percentage of SSOCS sampled schools were located in urban (37.4% vs. 35.2%) and suburban (26.0% vs. 19.3%) areas than in town (10.5% vs. 15.9%) and rural (26.0% vs. 29.6%) areas. $\chi 2 = 10.41$, $p = .015$. In addition, the SSOCS sampled schools were significantly larger on average (M=944.8 SD=740.3 vs. M=585.0 SD=501.5, $t = 10.31$, $p < .001$) and served a slightly greater average percentage of low-income students (M=52.5 SD=27.6 vs. M=48.7 SD=27.4, $t=2.02$, $p \leq .05$) than schools overall in Texas. The average percentages of minority and non-minority students in the schools, however, were not significantly different.

3. Sample weights provided in the SSOCS dataset were used to construct weighted responses for U.S. schools in order to obtain nationally representative responses at that level. The SSOCS sampling frame was not designed to provide representative responses for schools at the state level, so the results for Texas schools are unweighted and reflective of only those schools included in the sample. In compliance with NCES' regulations for reporting unweighted data, the N's for Texas have been rounded to the nearest 10.

districts, for example, total security expenditures averaged $2.57 million but ranged from $0 to over $21 million. Rural districts registered the lowest average spending at just under $33,000, in part due to the relatively high percentage of rural districts—41% compared to 12%, 4%, and 1.5% among town, suburban, and urban districts, respectively—that reported having no security-related expenditures that year.

Even after accounting for differences in district size, which is positively related to total expenditures on security ($r = 0.42$, $p \leq .001$), significant differences across and within district locale type remained. Overall, Texas districts devoted an average of $28.49 per pupil on security measures, again with urban districts reporting the highest average spending per pupil and rural districts the lowest.

In Table 1, security expenditures are also reported as a percentage of both total expenditures and operating expenditures in order to place the amount of

Table 1. District security spending in Texas, overall and by locale type

	All Districts	Locale Type			
		(a) Urban	(b) Suburban	(c) Town	(d) Rural
		Total Expenditures on Security ($)			
Mean†	312,030 (1,228,980)	2,571,982 (3,757,371)[bcd]	601,133 (1,015,768)[acd]	109,441 (260,249)[ab]	33,050 (124,037)[ab]
Min.	0	0	0	0	0
Median	9,578	1,151,670	174,759	28,988	1,418
Max.	21,129,747	21,129,747	5,132,426	2,386,223	1,947,538
		Expenditures on Security Per Pupil ($/pupil)			
Mean†	28.49 (37.94)	73.81 (43.64)[bcd]	51.36 (42.91)[acd]	32.81 (35.03)[abd]	15.64 (27.97)[abc]
Min.	0.00	0.00	0.00	0.00	0.00
Median	12.59	68.92	40.71	22.93	3.25
Max.	341.41	183.60	341.41	169.73	236.51
		Expenditures on Security as a Percentage of Total Expenditures (%)			
Mean†	0.23 (0.32)	0.65 (0.40)[bcd]	0.43 (0.35)[acd]	0.27 (0.31)[abd]	0.12 (0.23)[abc]
Min.	0.00	0.00	0.00	0.00	0.00
Median	0.08	0.61	0.35	0.16	0.03
Max.	1.85	1.65	1.85	1.57	1.65
		Expenditures on Security as a Percentage of Operating Expenditures (%)			
Mean†	0.31 (0.41)	0.83 (0.46)[bcd]	0.59 (0.46)[acd]	0.34 (0.36)[abd]	0.16 (0.29)[abc]
Min.	0.00	0.00	0.00	0.00	0.00
Median	0.13	0.81	0.47	0.23	0.03
Max.	3.28	1.92	3.28	1.91	2.23
N	1030	67	185	159	619

NOTE: Standard deviations are given in parentheses.

† Analysis of variance (ANOVA) tests for differences in means across locale type are all significant at $p \leq .001$. Bonferroni multiple comparisons were used to examine differences across all pairs of locale type classifications. If the mean value for one column has a superscript for another column, those two means are different at the $p \leq .05$ familywise error rate.

resources districts allocated to security in the context of their overall spending. On average, 0.23% of total expenditures and 0.31% of operating expenditures were spent on security efforts by Texas districts. ANOVA results revealed that urban districts allocated significantly more (0.65% of total and 0.83% of operating expenditures) than districts in other locale types, whereas rural districts allocated significantly less (0.12% of total and 0.16% of operating expenditures). Even greater variation in relative spending on security, however, was found within locale type, with the highest spending districts in each locale devoting at least 1.6% of total expenditures and 1.9% of operating expenditures to security measures.

By themselves, the figures in Table 1 seem rather modest, especially in relation to districts' overall spending. However, when compared to the average amount of resources that Texas districts devoted to other educational activities, a different perspective emerges. Table 2 displays in order from highest to lowest average expenditures by function code as a percentage of operating expenditures. At 0.31%, average spending on security and monitoring services by Texas districts in 2008–09 was nearly three times higher than their spending on social work services (0.11%)—which involve activities related to the diagnosis and treatment of students' social needs, including the employment of truant/attendance officers and social workers (TEA 2010a). Moreover, expenditures on security averaged about one-third of districts' expenditures on instruction-related curriculum and staff development and instructional leadership. Within locale type, urban districts devoted nearly as much to security efforts (0.83%) as to health services for students (0.97%). Thus, in relation to expenditures on other educational activities, security spending by Texas districts was not inconsequential and may have diverted resources from one or more of these other important areas.

USE OF SECURITY RESOURCES

Among the 752 Texas districts that reported expenditures for security and monitoring services during 2008–09, about two-thirds of the resources, on average, was spent on personnel-related expenses, including professional services and miscellaneous contracted services rendered by non-district personnel, as well as services provided by district-employed support personnel (Table 3). Interestingly, the use of district-employed support personnel versus outsourced personnel services differed across locale type with urban districts relying significantly more on district-employed support personnel than suburban, town, and rural districts. By comparison, rural districts were more likely to use outsourced personnel. Although the Texas data do not provide information on how these personnel were actually utilized, the analysis of the SSOCS data indicates that

Table 2. Mean expenditures by function as a percentage of operating expenditures for Texas districts, overall and by locale type

Function	All Districts	Locale Type			
		(a) Urban	(b) Suburban	(c) Town	(d) Rural
Instruction***	55.65 (4.54)	57.40 (3.90) [d]	56.34 (3.67) [d]	56.10 (3.23)	55.13 (5.01) [ab]
Maintenance and Operations	11.88 (4.22)	11.14 (4.54)	11.56 (3.75)	11.48 (2.19)	12.16 (4.67)
Food Services	5.38 (1.23)	5.29 (0.80)	5.39 (0.95)	5.52 (1.12)	5.35 (1.36)
General Administration***	5.29 (2.57)	2.84 (1.13) [cd]	3.55 (1.18) [cd]	4.25 (1.58) [abd]	6.34 (2.62) [abc]
School Leadership**	5.28 (1.26)	5.34 (0.73)	5.44 (0.80) [c]	4.99 (1.02) [bd]	5.30 (1.45) [c]
Extracurricular Activities***	4.15 (1.74)	2.70 (1.18) [bcd]	3.54 (1.20) [acd]	4.39 (1.39) [ab]	4.43 (1.89) [ab]
Transportation***	3.60 (2.07)	2.61 (1.20) [cd]	3.26 (1.38) [d]	3.51 (2.24) [a]	3.84 (2.21) [ab]
Guidance and Counseling***	2.55 (1.67)	3.55 (0.72) [d]	3.32 (1.11) [d]	3.03 (1.50) [d]	2.09 (1.76) [abc]
Instr. Resources & Media Services	1.53 (0.74)	1.58 (0.42)	1.58 (0.52)	1.54 (0.64)	1.51 (0.84)
Data Processing Services	1.47 (1.13)	1.52 (0.89)	1.49 (0.94)	1.34 (1.04)	1.49 (1.22)
Curriculum/Staff Development***	1.00 (0.94)	2.04 (1.05) [bcd]	1.39 (0.86) [acd]	1.08 (0.81) [abd]	0.75 (0.87) [abc]
Instructional Leadership***	0.93 (1.02)	1.73 (0.79) [bd]	1.34 (0.78) [ad]	1.44 (1.01) [d]	0.58 (0.95) [abc]
Health Services***	0.80 (0.56)	0.97 (0.26) [d]	0.94 (0.24) [d]	0.80 (0.28)	0.74 (0.68) [ab]
Security and Monitoring Services***	0.31 (0.41)	0.83 (0.46) [bcd]	0.59 (0.46) [acd]	0.34 (0.36) [abd]	0.16 (0.29) [abc]
Social Work Services***	0.11 (0.28)	0.36 (0.30) [bcd]	0.22 (0.45) [ad]	0.16 (0.26) [ad]	0.04 (0.16) [abc]
Chapter 41 Costs	0.06 (0.92)	0.05 (0.40)	0.01 (0.06)	0.03 (0.22)	0.08 (1.18)
Payments to Juvenile Justice Alternative Education Programs***	0.02 (0.08)	0.06 (0.10) [cd]	0.04 (0.10) [cd]	0.01 (0.07) [ab]	0.02 (0.08) [ab]
N	1030	67	185	159	619

Note: Standard deviations are given in parentheses. Analysis of variance (ANOVA) tests for differences in means across locale type are indicated by ***$p \leq .001$, **$p \leq 0.01$, *$p \leq 0.05$. Bonferroni multiple comparisons were used to examine differences across all pairs of locale type classifications. If the mean value for one column has a superscript for another column, those two means are different at the $p \leq .05$ familywise error rate.

access monitors and security personnel are commonly used by Texas and U.S. schools to promote security (more on this to follow). Expenditures for teachers and other professional personnel comprised a much smaller fraction of overall security spending (4.4%), which is not unexpected given the limited role certificated staff typically play in school security.

The 2.7% of expenditures allocated to furniture, equipment, and software likely captures costs associated with the purchase and maintenance of monitoring (e.g., surveillance cameras) and communication (e.g., two-way radios) devices, which schools use commonly to foster security. While seemingly low, it is important to remember that—as required by accounting standards—the expenditures in this study reflect expenses incurred during the 2008–09 accounting period. As a result, this study is unable to account for the annualized expenses (i.e., depreciation) of capital assets, like security equipment, used in 2008–09, but purchased in an earlier accounting year. Alternatively, Table 3 includes the full

cost of items purchased in 2008–09 whose useful life extends beyond the current period (e.g., security fences)—again confounding our effort to determine an annualized cost of security equipment. That being said, if security equipment purchasing patterns were relatively stable among districts statewide during

Table 3. Mean expenditures by object code as a percentage of security expenditures for Texas districts reporting security spending, overall and by locale type

Object Code	All Districts	Locale Type			
		(a) Urban	(b) Suburban	(c) Town	(d) Rural
Professional Services***	31.43 (39.44)	16.21 (29.57) [d]	26.20 (34.36) [d]	28.79 (36.86)	37.66 (42.97) [ab]
Support Personnel ***	21.25 (28.44)	44.13 (26.66) [bcd]	30.98 (28.51) [ad]	23.86 (29.97) [ad]	11.44 (23.62) [abc]
Miscellaneous Contracted Services	16.72 (31.21)	12.00 (21.60)	16.98 (20.05)	14.72 (30.44)	18.20 (34.25)
General Supplies***	9.34 (20.94)	5.60 (13.39)	5.73 (10.41) [d]	7.70 (17.33)	12.37 (26.06) [b]
Contracted Repair and Maintenance	5.21 (18.69)	1.63 (3.25)	2.60 (10.52)	5.93 (18.63)	6.85 (22.79)
Employee Allowances and Benefits***	4.56 (6.17)	9.50 (6.07) [bcd]	6.69 (6.27) [ad]	5.00 (6.55) [ad]	2.48 (5.01) [abc]
Teachers/Other Professional Personnel	4.42 (13.87)	6.52 (11.99)	5.58 (13.44)	4.51 (15.25)	3.45 (13.80)
Furniture, Equipment, and Software	2.73 (13.40)	0.63 (3.01)	2.62 (11.32)	3.24 (15.43)	2.97 (14.60)
Miscellaneous Operating Costs	1.17 (8.70)	0.35 (1.06)	0.52 (2.96)	1.11 (8.60)	1.64 (11.03)
Rentals	0.56 (5.62)	0.18 (0.61)	0.22 (1.32)	0.77 (6.33)	0.70 (6.96)
Maintenance Supplies and Materials	0.50 (4.43)	0.69 (1.04)	0.41 (0.93)	0.95 (8.48)	0.33 (3.49)
Vehicles **	0.41 (2.17)	1.07 (2.28) [d]	0.70 (2.76)	0.25 (1.54)	0.21 (1.99) [a]
Capital Assets Other	0.41 (4.71)	0.42 (2.30)	0.30 (1.57)	1.19 (9.71)	0.16 (2.70)
Travel and Stipends **	0.41 (2.01)	0.27 (0.40)	0.28 (0.53) [c]	1.00 (3.93) [bd]	0.26 (1.46) [d]
Education Service Centers	0.30 (3.84)	0.09 (0.46)	0.05 (0.39)	0.20 (1.54)	0.49 (5.39)
Land and Building Purchase and Improvement	0.23 (4.04)	0.91 (5.73)	0.02 (0.19)	0.00 (0.00)	0.29 (5.23)
Utilities	0.15 (1.98)	0.03 (0.10)	0.06 (0.38)	0.02 (0.19)	0.26 (2.81)
Tuition and Transfer Payments	0.12 (3.24)	0.00 (0.005)	0.00 (0.00)	0.00 (0.02)	0.24 (4.63)
Insurance and Bonding	0.11 (1.13)	0.12 (0.52)	0.09 (0.40)	0.27 (2.33)	0.06 (0.64)
Legal Services	0.09 (2.50)	0.00 (0.00)	0.00 (0.00)	0.49 (5.80)	0.00 (0.00)
Capital Lease Principal and Interest*	0.00 (0.04)	0.02 (0.13) [bcd]	0.00 (0.00) [a]	0.00 (0.00) [a]	0.00 (0.00) [a]
Library, Media, and Reading Materials	0.00 (0.02)	0.01 (0.02)	0.00 (0.02)	0.00 (0.03)	0.00 (0.003)
Food Service	0.00 (0.01)	0.00 (0.005)	0.00 (0.00)	0.00 (0.00)	0.00 (0.009)
N	752	66	178	140	368

Note: Standard deviations are in parentheses. Analysis of variance (ANOVA) tests for differences in means across locale type are indicated by ***p ≤ .001, **p≤0.01, *p≤0.05. Bonferroni multiple comparisons were used to examine differences across all pairs of locale type classifications. If the mean value for one column has a superscript for another column, those two means are different at the p ≤ .05 familywise error rate.

the past decade, the net budgetary effect of this accounting practice would be immaterial to these analyses.

The object-level breakdown provides a general sense of Texas districts' use of security resources. To gain a better understanding of actual security measures and practices used by schools, relevant items from NCES' SSOCS data were analyzed. Recall that the SSOCS results for Texas over-represent urban and suburban schools in the state due to the sampling design of the survey. The results for U.S. schools, in contrast, are representative and provide an added view of schools' security practices.

Perhaps the most visible personnel-related security expenditure by districts is the use of security personnel in schools. In Table 4, Texas and U.S. schools' use of security personnel as measured by the mean number of full-time and part-time security personnel per 100 students are reported. Respondents to the SSOCS were asked to distinguish among their use of three types of security personnel: (1) security guards, (2) school resource officers (SROs), and (3) sworn law enforcement officers. SROs are specially trained, active-duty law enforcement officers who are assigned by their employing police agencies to work in schools. In addition to providing law enforcement and police services, SROs provide law-related counseling and education for students and faculty/staff in the schools (Center for the Prevention of School Violence n.d.). Sworn law enforcement officers are like SROs in that they are career officers employed by local police agencies, but they are not specially trained or assigned long-term to schools like SROs. Security guards, in contrast, are not employed law enforcement officers, but rather are paid by districts to provide security and monitoring services in schools. While districts bear the cost for security guards, the true budgetary effect of SROs and law enforcement officers is less clear because districts sometimes share the expenditure with their local police department, municipality, or county government (Kennedy 2003; Kim and Haag 2009).

As shown in Table 4, Texas schools overall employed an average of one full-time security person for every 700 students, and U.S. schools overall employed one full-time security person for every 1,000 students. In addition, Texas and U.S. schools employed roughly one part-time security person for every 1,100 students. On average, Texas schools utilized slightly more full-time law enforcement personnel than schools nationwide—perhaps due to the over-representation of larger, more urban schools in Texas. At the national level, urban schools utilized significantly more full- and part-time security personnel than suburban, town, and rural schools, averaging about one full-time person for every 550 students compared to one for every 1,200 to 1,400 students in the other locales.

In addition to employing security personnel, Texas and U.S. schools reported utilizing a wide variety of other practices to provide a secure learning environment (Table 5). Some of these other practices also entailed personnel resources, such as checking in visitors and monitoring doors, which as of 2007–08 were in place in the vast majority of sampled Texas and U.S. schools. Other personnel-related security activities, such as performing random sweeps for weapons and other contraband and the random or regular use of metal detectors, were reported to be much less commonly used. Although it was revealed in Table 3 that only 2.7% of security expenditures by Texas districts in 2008–09 was allocated to furniture, equipment, and software, Table 5 shows that some types of security equipment, including security cameras and two-way radios, were used by more than half

Table 4. Magnitude of schools' use of security personnel in U.S. and Texas schools, overall and by locale type

Texas Schools	All Schools	(a) Urban	(b) Suburban	(c) Town	(d) Rural
Full-time Security Personnel					
Security guards*	0.05 (.10)	0.09 (.10)^{cd}	0.05 (.12)	0.00 (.00)^{a}	0.03 (.08)^{a}
School resource officers†	0.07 (.19)	0.06 (.07)	0.06 (.12)	0.15 (.30)	0.08 (.27)
Sworn law enforcement officers†	0.02 (.05)	0.02 (.05)	0.02 (.05)	0.00 (.00)	0.02 (.06)
Total	0.14 (.23)	0.17 (.14)	0.13 (.22)	0.15 (.30)	0.13 (.29)
Part-time Security Personnel					
Security guards	0.02 (.08)	0.02 (.05)	0.02 (.07)	0.00 (.00)	0.03 (.13)
School resource officers*	0.05 (.13)	0.02 (.06)^{c}	0.04 (.09)	0.12 (.31)^{a}	0.04 (.13)
Sworn law enforcement officers	0.02 (.09)	0.02 (.08)	0.02 (.07)	0.00 (.00)	0.03 (.11)
Total	0.09 (.20)	0.06 (.12)	0.08 (.15)	0.12 (.31)	0.10 (.27)
N	220	80	60	20	60
U.S. Schools	All Schools	(a) Urban	(b) Suburban	(c) Town	(d) Rural
Full-time Security Personnel					
Security guards	0.05 (.19)	0.11 (.31)^{bcd}	0.04 (.13)^{acd}	0.02 (.07)^{abd}	0.03 (.12)^{abc}
School resource officers†	0.04 (.20)	0.06 (.25)^{bd}	0.03 (.20)^{ac}	0.05 (.24)^{bd}	0.03 (.13)^{ac}
Sworn law enforcement officers†	0.008 (.09)	0.02 (.17)^{bcd}	0.01 (.04)^{ad}	0.01 (.06)^{a}	0.01 (.06)^{ab}
Total	0.10 (.31)	0.18 (.46)^{bcd}	0.08 (.25)^{ad}	0.08 (.28)^{a}	0.07 (.20)^{ab}
Part-time Security Personnel					
Security guards	0.02 (.13)	0.03 (.21)^{bcd}	0.03 (.10)^{acd}	0.01 (.06)^{ab}	0.02 (.08)^{ab}
School resource officers	0.05 (.16)	0.07 (.22)^{bd}	0.04 (.12)^{acd}	0.06 (.14)^{bd}	0.05 (.14)^{abc}
Sworn law enforcement officers	0.02 (.11)	0.04 (.15)^{bcd}	0.02 (.09)^{ac}	0.01 (.08)^{ab}	0.02 (.10)^{a}
Total	0.09 (.25)	0.13 (.38)^{bcd}	0.09 (.19)^{ad}	0.08 (.19)^{a}	0.08 (.21)^{ab}
N	78729	19653	26714	7561	24801

Note: Means per 100 students enrolled are reported. Standard deviations are given in parentheses. The U.S. numbers are weighted to produce estimates that are nationally representative. The Texas numbers are unweighted and are not representative of all Texas schools. The N's for Texas are rounded to the nearest 10 in compliance with NCES' regulations for reporting unweighted data.

† Indicates statistically significant differences ($p \leq .05$) in means between all Texas schools and all U.S. schools.

* Indicates significant ANOVA results at the $p \leq .05$ level for Texas schools. Analysis of variance (ANOVA) tests for differences in means across locale type within U.S. schools are all significant at $p \leq .05$. Bonferroni multiple comparisons are used to examine differences across all pairs of locale type classifications for Texas schools and U.S. schools. If the mean value for one column has a superscript for another column, those two means are different at the $p \leq .05$ familywise error rate.

of the schools both in the Texas sample and in the U.S. around that time. As previously mentioned, accounting rules obscure the actual annualized costs of security equipment in the Texas financial data, which would help to explain the seeming discrepancy between equipment expenditures and use in Texas.

Table 5. Percentage of schools using identified security practices in Texas and U.S. schools, overall and by locale type

Texas schools	All	Urban	Suburban	Town	Rural
Require visitor check-in	100	100	100	100	100
Lock or monitor doors	88.6	90.2	91.2	78.3	87.7
Close campus during lunch†	82.6	80.5	82.5	82.6	86.0
Enforce strict dress code†	77.2	81.7	66.7	82.6	78.9
Require staff to wear ID badges†*	72.6	79.3	84.2	65.2	54.4
Use security cameras†	68.5	64.6	75.4	65.2	68.4
Provide two-way radios to staff†*	67.2	76.8	70.2	60.9	54.4
Use of security personnel†*	65.3	84.1	66.7	47.8	43.9
Provide in-class telephones†*	56.2	65.9	66.7	21.7	45.6
Lock or monitor gates*	48.9	59.8	57.9	26.1	33.3
Provide anonymous threat reporting system†	42.9	51.2	47.4	30.4	31.6
Require student uniforms†*	24.7	43.9	15.8	17.4	8.8
Require students to wear ID badges†	23.7	32.9	21.1	17.4	15.8
Perform random sweeps for weapons/contraband†	20.1	25.6	17.5	17.4	15.8
Require clear book bags or prohibit use of book bags†	16.4	20.9	17.5	21.7	7.0
Use random metal detector checks†*	11.9	17.1	14.0	–	–
Use metal detectors at entry†	4.1	8.5	–	0.0	0.0
N	220	80	60	20	60
U.S. schools	All	Urban	Suburban	Town	Rural
Require visitor check-in	98.8	99.1	99.9	99.6	97.2
Lock or monitor doors	89.6	92.5	92.7	90.4	83.7
Close campus during lunch†	65.4	66.5	63.2	71.4	65.2
Enforce strict dress code†	54.4	64.2	50.6	51.9	51.4
Require staff to wear ID badges†	59.0	62.6	72.2	62.7	40.9
Use security cameras†	55.2	52.4	58.8	58.4	52.7
Provide two-way radios to staff†	73.5	77.1	77.9	70.4	66.9
Use of security personnel†	46.1	57.8	47.7	46.4	34.9
Provide in-class telephones†	72.1	70.9	79.1	66.3	67.4
Lock or monitor gates*	42.3	54.9	46.7	36.4	29.5
Provide anonymous threat reporting system†	31.2	37.5	31.4	32.4	25.7
Require student uniforms†	15.3	35.1	11.8	6.2	6.2
Require students to wear ID badges†	7.4	13.1	7.2	6.0	3.6
Perform random sweeps for weapons/contraband†	10.7	11.5	6.7	10.6	14.6
Require clear book bags or prohibit use of book bags†	5.6	6.2	4.1	8.1	5.9
Use random metal detector checks†	5.0	10.8	2.0	3.9	4.0
Use metal detectors at entry†	1.1	3.5	0.3	0.4	0.4
N	78,729	19,653	26,714	7,561	24,801

Note: The U.S. numbers are weighted to produce estimates that are nationally representative. The Texas numbers are unweighted and are not representative of all Texas schools. The N's for Texas are rounded to the nearest 10 in compliance with NCES' regulations for reporting unweighted data.

– NCES reporting standards not met due to small sample size.

† Differences between all Texas schools and all U.S. schools are statistically significant at p≤.05 level. All of the differences across locale type for U.S. schools are statistically significant at the p≤.05 level.

* Denotes differences across locale type for Texas schools that are statistically significant at the p≤.05 level.

DIFFERENCES IN SECURITY SPENDING AMONG DISTRICTS

Resources devoted to mandated or elective security efforts necessarily draw from other—perhaps more productive—educational activities. Thus, differences in security spending across districts should raise equity concerns if poorer districts need to spend more on security, thereby leaving fewer resources for other services. Table 6 shows simple bivariate correlations between security spending as a percentage of operating expenditures and other characteristics of Texas districts. As revealed in the previous Tables, there is a significant correlation between security spending and both district locale type and district size. Security spending is negatively correlated with wealth per ADA (measure of district wealth), which shows that more wealthy districts in Texas tended to spend a smaller percentage of their operating budgets on security than poorer districts. The correlation between wealth and security spending, however, is fairly weak ($r = -0.152$, $p \leq .001$), indicating that about 2% of the variation in security spending can be accounted for by differences in district wealth. Somewhat stronger, positive correlations were found between security spending and the characteristics of students in the districts (% minority students, % low-income students).

Given that these district characteristics also are significantly correlated with each other, simple OLS regression models were estimated to examine the unique association of each of these characteristics with security spending (Table 7).

Table 6. Bivariate correlations for Texas districts

	Security spending	Operating exp.	Urban	Suburban	Town	Rural	Wealth per ADA	Student Enroll-ment	% Low-income	% Minority
Security spending	1.00									
Operating exp.	0.416***	1.00								
Urban	0.334***	0.502***	1.00							
Suburban	0.317***	0.167***	-0.123***	1.00						
Town	0.033	-0.071*	-0.113***	-0.200***	1.00					
Rural	-0.441***	-0.331***	-0.324***	-0.574***	-0.524***	1.00				
Wealth per ADA	-0.152***	-0.058	-0.050	-0.095**	-0.022	0.116***	1.00			
Student Enrollment	0.422***	0.996***	0.499***	0.184***	-0.075*	-0.340***	-0.065*	1.00		
% Low-income	0.259***	0.069*	0.114***	-0.046	0.140***	-0.124***	-0.163***	0.053	1.00	
% Minority	0.446***	0.288***	0.268***	0.146***	0.190***	-0.390***	-0.058	0.285***	0.684***	1.00

N=1030 districts. ***$p \leq .001$, **$p \leq 0.01$, *$p \leq 0.05$

Table 7. Factors associated with security spending as a percentage of operating expenditures in Texas districts (OLS regression)

	Model I	Model II	Model III
Constant	0.482	0.501	0.197
Locale Type[a]			
Suburban	-0.046	-0.048	0.010
Town	-0.183**	-0.182**	-0.160**
Rural	-0.338***	-0.332***	-0.236***
Enrollment (per 100 students)	.002***	.002***	0.002***
Enrollment (per 100 students)^2	-9.2E-7***	-9.0E-7***	-8.6E-7***
Wealth per ADA		-4.1E-8**	-3.3E-8**
% Low-income students			0.002**
% Minority students			0.003***
Adjusted R^2	.332	.338	.397
N	1025	1025	1025

[a] Urban is reference category. ***p ≤ .001, **p≤0.01, *p≤0.05

Differences in locale type and size account for roughly one-third of the variation in security spending across Texas districts (Model I). Controlling for district size (i.e., enrollment), a smaller percentage of operating expenditures is allocated to security in town and rural districts compared to urban districts. Controlling for differences in locale, larger districts devote a greater percentage of their operating budgets to security than smaller districts. The squared enrollment term, though, indicates that spending increases with district size but at a decreasing rate. This makes intuitive sense as one can imagine that economies of scale can be achieved with some security practices, such as the use of security personnel and surveillance cameras.

Controlling for locale type and size, district wealth has a significant negative association with security spending, although the impact is fairly small. Specifically, a $1 million increase in wealth per ADA is associated with a 0.041 decrease in the percentage of operating expenditures allocated to security (Model II). Adding student characteristics to the model (Model III), the results show significantly higher security spending in districts with greater percentages of minority and low-income students, even after controlling for differences in locale and district wealth. For every 10 percentage point increase in the proportion of low-income and minority students in a district, security spending as a percentage of operating expenditures increases by .02 and .03 percentage points, respectively.

The figures reported in Table 7 raise questions about equity in the distribution of resources, specifically notions of fiscal neutrality. Fiscally neutrality exists when factors internal or external to the school system are not associated with an equity object (Baker, Green, and Richards 2008). Interestingly, violations of fiscal neutrality are typically identified as significant correlations between district

wealth measures (e.g., property value) and desirable schooling inputs (e.g., instructional spending per pupil). The analysis reveals that poorer districts and districts serving larger populations of disadvantaged students tend to allocate a greater proportion of their resources to security efforts. It may be warranted that poorer districts spend more than their wealthier counterparts on a non-instructional resource like school security—nonetheless, the phenomenon violates fiscal neutrality in a disquieting way.

Questions of equity invite questions of adequacy—that is, do districts have an adequate level of resources to carry out their charge? The SSOCS data provided some insight into this issue. In that survey, principals were asked to indicate the extent to which inadequate funds limited their schools' efforts to prevent crime. As shown in Table 8, principals in nearly half of the schools in the Texas sample and in almost two-thirds of U.S. schools reported being limited in a major or minor way by inadequate funds. Moreover, urban schools at the national level were more likely than schools in other locale types to view funding as a major limitation. This suggests that a substantial percentage of schools, including schools that already tend to spend disproportionately more on security, would spend even more if funds permitted. Taken together, the equity and adequacy analyses, albeit limited, suggest that policymakers need to consider the resources district spend—or feel they need to spend—to secure their schools, and how variations in these spending patterns implicate spending for other educational needs.

Table 8. Extent to which inadequate funds limit schools' efforts to prevent crime (percentage of schools overall and by locale type for Texas and U.S.)

Texas Schools	All	Urban	Suburban	Town	Rural
Limit in major way	15.1	14.6	17.5	0.0	15.1
Limit in minor way	33.8	36.6	31.6	34.8	33.8
Does not limit	51.1	48.8	50.9	65.2	51.1
N	220	80	60	20	60
U.S. Schools	All	Urban	Suburban	Town	Rural
Limit in major way	23.6	31.2	18.6	19.7	24.3
Limit in minor way	39.8	35.2	40.8	46.6	40.2
Does not limit	36.6	33.6	40.6	33.6	35.6
N	78,728	19,653	26,714	7,561	24,800

Note: The U.S. numbers are weighted to produce estimates that are nationally representative. The Texas numbers are unweighted and are not representative of all Texas schools. The N's for Texas are rounded to the nearest 10 in compliance with NCES' regulations for reporting unweighted data. Differences by locale type are significant for U.S. schools (χ^2=1203.96, p≤.001), but not for Texas schools (χ^2=5.77, p=.449).

DISCUSSION

The purpose here was to draw policymakers' attention to the costs districts incur to provide secure learning environments. When viewed simply, the analyses revealed that Texas districts spend, on average, 0.31% of operating costs on security, with urban districts devoting the greatest share to these activities (0.81%) and rural districts the least (0.16%). One might be tempted to dismiss these seemingly negligible figures out of hand. Indeed, efforts to disaggregate larger expenditure categories, say, instruction or administration, have and still promise to foster educational productivity and equity reforms. Notwithstanding the utility of such work, policymakers need to consider the implications of our findings. Most noteworthy, security expenditures are greatest in urban school systems with high concentrations of student poverty. While this finding underscores conventional wisdom (and empirical data) that urban communities have higher rates of violence and property crime, it does not follow that these districts should allocate a disproportionately higher share of their educational resources to prevent these activities. This phenomenon prompts one to revisit the notion of "municipal overburden," which served as the basis for several cases in the first wave of school finance litigation. Though this study makes no causal claims on how security spending affects budget allocations in other functional areas (e.g., instruction), a dollar spent in one area cannot be spent in another, perhaps more productive, way.

Policymakers also need to recognize that this analysis focused, by necessity, on only one component of the total expenditures that Texas districts incurred to decrease school violence, security and monitoring services. Districts may employ additional cost-bearing activities to provide safe learning environments—including the development and implementation of school-wide positive behavior support systems, small-group strategies for selected at-risk students, and targeted interventions for high-risk students (Sprague 2007). Although these initiatives strive to decrease school violence, accounting conventions dictate that districts account for resources spent on these activities in other functional areas, such as instruction or guidance and counseling. For example, the Texas Education Code requires that districts place students who commit sexual assault against another student in a disciplinary alternative education program (DAEP) or a juvenile justice education program (JAEP). Districts account for JAEP expenditures using a reserved function code (see Table 2). Alternatively, districts record expenditures for DAEP, which also serve students deemed to "threaten the safety of other students or teachers…" or who "engage in conduct punishable as a felony" or "sells, gives, or delivers" drugs (TEC §37), in multiple functions. An analysis of those accounts found that in 2008–09 urban districts

spent, on average, 0.54% of their operating budgets on DAEP programming—double the statewide average (0.27%). Districts also record spending for certificated administrators whose duties in full or in part involve school safety in the building to leadership or general administration functions. Districts' use of these categories is not disputed, nor is the need to follow generally accepted accounting principles. The point is simply that any effort to take stock of district spending on school security likely understates the full budgetary effect of these activities.

Additionally, there is strong evidence that the public's desire for improving student safety is intensifying as conceptions of school violence expand to include bullying. In 2010, a Massachusetts teenager allegedly committed suicide because classmates bullied her. The incident, referred to as "this generation's Columbine" (Khadaroo 2010), marks a period of state and federal legislative and judicial activity that holds school personnel accountable for preventing and addressing bullying (Hoffman 2010; Paulson 2010). For instance, in 2010, a U.S District Court ordered a Michigan school district to pay $800,000 to a student for "failing to protect him from years of bullying" (Walsh-Sarnecki 2010). Although the unit cost of security monitoring devices (e.g., surveillance cameras) might decrease as have other educational technologies (e.g., computers), the personnel costs attributable to anti-bullying initiatives may instead rise as districts strive to mitigate this problem through training, as will their legal costs when they fail to do so. Earlier this year, a New York district agreed to pay a student $50,000 because they did not "stop taunts about his sexual orientation" (Lavoie 2010), and provide professional development to their staff on harassment (Walsh 2010).

One means for state policymakers to contemplate better the budgetary effects of school violence is to implement financial reporting systems that enable districts to account for the full range of expenditures that follow from security measures and violence prevention programming. To be clear, the detail afforded by Texas' fiscal reporting system is an anomaly. Since 2003, the NCES has recommended that districts account separately for security-related expenditures—as distinguished from safety related expenditures (NCES 2003, 2009). Our review of state fiscal reporting systems, however, revealed that most have not done so, including California, New York, Florida, and Illinois—the nation's most populous states.

While our work in Texas advances policymakers' understanding of school security costs, there are numerous ways for researchers to extend this analysis. For instance, the Texas data did not enable us to examine the degree to which Texas districts utilized federal, state, or local revenues to underwrite the cost of these activities. Having such an understanding would enable policymakers to consider alternative ways to fund school security (e.g., general or categorical

aid), and examine further equity in the distribution of these resources across the state. Another logical extension of this study is to trace the costs of school security to the instructional, student support services, and administrative functions. As noted, this study could not account for the costs that districts incurred to provide school-wide, small-group, or individual violence prevention instructional programming, though our own and others' analyses of the NCES data make clear that many schools undertake these activities (NCES 2007)—nor could this study account for the time that counselors and administrators devote to school security (e.g., hall monitoring).

Another important extension of this work involves examining the relationship between school or district-level security costs and indicators of perceived student safety or student incident reports. As demonstrated here, however, researchers need recognize that reported expenditures capture only one element of the total cost of school security and the reliability and validity of student perceptions of violence are subject to dispute (Furlong, Morrison, Cornell, and Skiba 2004; Postal 2010). One also could probe the cost-effectiveness of a specific prevention strategy. This literature review revealed scores of studies that examined the efficacy of various strategies to reduce school violence, though remarkably few efforts attended to their cost.

What links these research programs together is that each depends on the availability of more refined data. This article's intent is to draw the attention of policymakers to the cost of school violence prevention, and foster calls to modify state fiscal reporting systems so that they may better understand how the allocation of these resources implicates equity and productivity.

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