

**SCHOOL CLIMATE AND SCHOOL SECTOR:  
UTILIZING A MIXED METHODS APPROACH TO EXAMINE  
BULLYING AND FEAR AMONG STUDENTS**

by

Katie A. Farina

A dissertation submitted to the Faculty of the University of Delaware in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Criminology

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## **ABSTRACT**

Bullying has received increased attention from academics, scholars, and the media over the past decade and a half. The effects of bullying can be devastating and long-lasting for victims and bullies alike. Recent prevention efforts and research has focused on the school environment as a whole. A second area that has recently grown in the school literature is the focus on fear. While fear of crime is not a new area of study, it is only recently that scholars have investigated this phenomenon within schools. As such, one area of interest that could affect both bullying and fear is the role of school climate. The purpose of this study was to understand how the school environment—through school climate—affects students’ experiences of bullying victimization and fear of being harmed. This research will contribute to the literature on both bullying and fear by examining the role of school sector through a mixed methods approach analyzing the School Crime Supplement and open-ended responses collected specifically for this project. Mixed methods are beneficial to this project as they provide a well-rounded understanding of students’ perceptions of school climate and its effects on bullying prevention and increased feelings of safety. Quantitative findings suggest that a positive school climate predicts less reporting of bullying incidents and decreased feelings of fear. Qualitative analyses add an additional layer to this research by highlighting several measures students believe schools can take to reduce both bullying and experiences of fear.

## **Chapter 1**

### **INTRODUCTION**

Over the past decade, there has been increased attention to the devastating effects of bullying. For example, in Massachusetts, a young girl named Phoebe Prince committed suicide after months of bullying. Her tormentors were indicted as adults on felony charges ranging from statutory rape to assault to stalking (Kennedy, 2010). In California, a 13 year old boy was shot in the back and face with a pellet gun while in class by peers who bullied him (Chang, 2013). In New Jersey, Tyler Clementi committed suicide after his roommate used social media sites to share a video of Clementi making out with another male (Foderaro, 2010). As a result, the public has become aware of the seriousness of bullying and demanded action. In response to Prince and Clementi's suicides, both Massachusetts and New Jersey have enacted anti-bullying legislation (Bill A3466, 2011; Bill S2323, 2011). Among their numerous stipulations, these bills require bullying prevention programs in schools as well as mandatory training of teachers to spot and respond to bullying incidents.

This acknowledgment of bullying as a "social problem" has led sociologists, criminologists, and education scholars (among others) to examine the process of bullying in schools. A recent component present in the school literature is how the school organization or school climate affects bullying. School climate is an important component of the school environment; it is considered to be the social atmosphere of the "learning environment." Students have different experiences, depending upon the protocols set up by the teachers and administrators (Moos, 1979). Schools that

possess a positive school climate may positively affect student-teacher relationships, student delinquency and victimization, teacher efficacy, and academic performance (Donaldson, 2008; Hord and Sommers, 2008; Payne, Gottfredson, and Gottfredson, 2003; Stewart, 2003).

Not only is the research examining the link between school climate and bullying in its infancy, but the relationship between school organization and school sectors has been virtually ignored. Most of the research investigating these issues utilize data from public schools or do not disaggregate by public and private schools. Few studies have looked at the relationship between school sector and school climate. Those that have looked at this subject provide a glimpse into the differences based on school sector. Literature suggests that parochial schools are a more close-knit community built upon a series of values (Coleman and Hoffer, 1987) and have a more positive school climate (Alt and Peter, 2002; Honingh and Oort, 2009). Also, given the market orientation of parochial schools, parents are typically more involved in the school institution itself (Corten and Dronkers, 2006) and teachers and staff make special efforts to educate and socialize minority students into the school's culture (Shouse, Schneider, and Plank, 1992). Since these two areas are largely underdeveloped, so too is the relationship between school climate, bullying, and school sectors.

As research continues to examine the school environment as a whole, scholars have also expanded their investigations to include student's feelings of safety within the school climate literature. In the past two decades, correlates of fear for students have been uncovered and often mimic those for adults in terms of gender, race, and previous victimization (Alvarez and Bachman, 1997; Chadee and Ditton, 2003; May and Dunaway, 2000; Schreck and Miller, 2003; Wallace and May, 2005). Research

has highlighted the relationship between school climate and fear as well—a more positive school climate results in less fear among students. However, the past twenty years have seen an increase in harsh disciplinary policies in schools that reflect the criminal justice system (Kupchik, 2010). In addition to creating a negative school climate, these policies may also have led to an increase in students' fear of crime at school (Bachman, Randolph, and Brown, 2011; Schreck and Miller, 2003; Welsh, 2001). However, we still know very little about the differential factors that predict fear and bullying behavior within public versus private school contexts.

This research aims to expand the current literature on bullying, fear, and school climate. This topic is incredibly prevalent given the increased attention that has been paid to the negative effects of bullying behaviors. Research suggests that bullies, victims, and bully-victims (a unique group of students who both bully others and are victimized by bullies), show increased risk for delinquency, substance abuse, academic problems, truancy, loneliness, suicidal ideation, depression, and risky sexual behaviors (Bradshaw, Waasdorp, Goldweber, and Johnson, 2013; Farrington and Ttofi, 2011; Glew, Fan, Katon, and Rivara, 2008; Kim, Catalano, Haggerty, and Abbott, 2011; Klomek, Sourander, and Gould, 2010; Litwiller and Brausch, 2013). Bullying also increases fear not only among victims, but also bystanders who view these acts on a regular basis (Glew et al., 2008). Expressing fear at school also results in negative consequences among students. These students are more likely to avoid school, suffer academically, and report lower levels of self-confidence (Khoury-Kassabri, 2011; Juvenon, Nishina, and Graham, 2000; Brown and Benedict, 2004). These short- and long-term consequences speak to the importance of being able to recognize the many facets of bullying behaviors and fear, and developing a plan to intervene and assist these students.



Following a rash of mass school shootings that occurred in the United States, starting with the tragedy at Columbine High School in Colorado that killed 15 (including the two shooters) in April of 1999, the media's attention on bullying behaviors increased. A common question when discussing these shootings is the possible role of bullying, including whether the shooters are bullies or victims themselves. As a result, it has been suggested that youth violence in schools, especially low levels of aggression in the form of bullying, is in fact a red flag and is an opportunity for teachers, staff, and parents to intervene (Spivak and Prothrow-Stith, 2001). In their study of 5,300 7<sup>th</sup>, 9<sup>th</sup>, and 11<sup>th</sup> graders who resided on the West Coast, Glew and her colleagues (2008) found that bully-victims were not only more likely to report fear at school, but were also most likely to endorse taking a gun to school.

Recognizing the consequences of bullying and the possibility for increased violence at school highlights the importance of early intervention. One possible avenue for decreasing bullying and fear in school is through school climate variables. Highlighting the relationship between school factors and students' behaviors can assist educators in designing programs to intervene in problem behaviors and decrease the chance of future aggression and negative behaviors. An intervention program put in place by a prominent bullying researcher, Dan Olweus, focused on reducing bullying, violence, and sexual harassment in schools by creating a more positive school climate. There were five components of the program that called upon all members of the school community to work together. These components, which are measures of school climate, included: classroom curriculum, staff training, policy development, parent education, and support services (Olweus, Limber, and Mihalic, 1999). Furthermore, Anderson (1998) suggests that fear, violence, and bullying at school are

maintained by a negative school climate and changes in this environment can increase feelings of safety.

Using a mixed methods research design, the purpose of this research is to help bridge the gap present in these three areas of the literature. Because bullying is a factor that has been shown to be related to both school climate and fear, the present research will examine them in tandem, first by predicting bullying and then including the presence of bullying as a predictor of students' fear. First, using a nationally representative sample of secondary education students, predictors of both bullying and fear of crime will be examined. Additionally, school sector (public versus private) models predicting bullying and fear will be examined to determine whether the factors related to each are the same or different for students within each school context. The second phase of this research will use open-ended questions that will solicit information from an availability sample of introductory classes at a northeastern public university. The primary purpose of this phase of the research is to conduct an exploratory analysis of students' perceptions of school factors that most affect bullying and feelings of safety. This use of qualitative methods allows for the use of students' own words to further understand the underlying mechanisms that affect perceptions of fear and bullying among recent high school graduates.

### ***Organization of Chapters***

This chapter provided a brief introduction to the current study. It placed the issues of bullying and fear into a larger social context. Additionally, it called attention to the need to investigate the relationships between bullying, fear, school climate, and school sector. Chapter two presents a literature review examining the theoretical significance of school climate and school sector. Chapter three reviews significant

pieces that have discussed the factors surrounding school climate, school sector, bullying, and fear. Chapter four outlines the methodology that will be used in this study to test the hypotheses drawn from the literature review. This chapter also summarizes the datasets utilized and the operationalization of key variables. Chapters five and six present the results from the quantitative analyses and highlight key relationships that were uncovered. Chapters seven and eight discuss the overarching themes identified using qualitative methods and chapter nine provides a conclusion to the study.

## Chapter 2

### **THEORETICAL FRAMEWORK: SCHOOL CLIMATE AND SCHOOL SECTOR**

#### *School Climate: Definition and Conceptualization*

Educational scholars have long identified the importance of school climate (Perry, 1908). However, it was not until the latter half of the 20<sup>th</sup> century that researchers began to recognize the complex nature of school climate and embark on scientific studies. In fact, there is not one agreed upon definition of school climate or one exhaustive list of all the elements that measure school climate (Cohen, McCabe, Michelli, and Pickeral, 2009; Zullig, Koopman, Patton, and Ubbes, 2010). School climate research was largely influenced by organizational theory, which defines the climate of an environment as "...a relatively enduring quality of the internal environment of an organization that (a) is experienced by its members, (b) influenced their behavior, and (c) can be described in terms of the values of a particular set of characteristics (or attributes) of the organization" (Tangiuri, 1968, p. 27). When applied to education, Tangiuri's (1968) definition implies that staff, teachers, students, and parents work together in a microcosm. As such, it is up to the members of the organization to define precisely what type of environment the school will possess. A basic definition of school climate considers it to be the social atmosphere of a setting or "learning environment" wherein students have different experiences, depending upon the protocols set up by teachers, parents, and administrators (Moos, 1979).

Since current school climate scholars encountered a multitude of definitions and terms in relation to school climate, a group of educational policy and practice leaders convened a meeting organized by the Center for Social and Emotional Educational and the National Center for Learning and Citizenship at the Educational Commission of the States in 2007 to reach a shared definition:

...[S]chool climate refers to the quality and character of school life. School climate is based on patterns of people's experiences of school life and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures. A sustainable, positive school climate...includes norms, values, and expectations that support people feeling socially, emotionally, and physically safe. People are engaged and respected. Students, families, and educators work together to develop, live, and contribute to a shared school vision. Educators model and nurture an attitude that emphasizes the benefits of, and satisfaction from, learning. Each person contributes to the operations of the school and the care of the physical environment. However, school climate is more than individual experience: It is a group phenomenon that is larger than any one person's experience. School climate, or the character of the school, refers to spheres of school life...(Cohen et al., 2009, p. 182).

This definition indicates that school climate encompasses a multitude of factors including but not limited to school size, student/teacher ratio, physical features of the school building, composition of students, teachers, and staff, class size, clarity of rules, fairness of discipline, instruction methods, effective teachers, and values and norms of participating members. Based upon a review of the existing school climate literature, Cohen and his colleagues (2009) determined that there are four major areas that shape school climate: safety, relationships, teaching and learning, and the external environment. Within each of these dimensions, there are subdimensions. In

comparison, Zullig and his colleagues (2010) also performed a review of the school climate literature and common measurement tools that are used in studies evaluating climate. They identified eight domains of school climate. Table 2.1 compares these two efforts at conceptualizing school climate. Ultimately, the table serves to highlight the varied and complex facets of school climate and illustrates the fact that it is possible to measure the concept in a variety of ways.

**Table 2.1: Dimensions and Domains of School Climate**

<b>Cohen et al., 2009 School Climate Dimensions</b>	<b>Zullig et al., 2010 School Climate Domains</b>
Safety	Positive Student-Teacher Relationships
a. Physical	School Connectedness
b. Social-Emotional	Academic Support
Teaching and Learning	Order and Discipline
a. Quality of Instruction	School Physical Environment
b. Social, Emotional, and Ethical Learning	School Social Environment
c. Professional Development	Perceived Exclusion/Privilege
d. Leadership	Academic Satisfaction
Relationships	
a. Respect for Diversity	
b. School Community and Collaboration	
c. Morale and “Connectedness”	
Environmental-Structural	

***Impact and Effect of School Climate***

As part of an ever-increasing body of research, scholars continue to measure different aspects of school climate and their effects on various behaviors and outcomes including: student achievement (Donaldson, 2008; Hord and Sommers, 2008), attachment to school (Blum, McNeely, and Rinehart, 2002; Stewart, 2003); student

delinquency and school disorder (Gottfredson and Gottfredson, 1985; Gottfredson et al., 2005; Stewart, 2003; Welsh, Greene, and Jenkins, 1999; Wynne and Joo, 2011). Welsh and his colleagues (1999) measured school climate through both student attachment to school, teachers, and peers as well as student perception of fairness and clarity of rules. The authors found that students more attached to their schools and who perceived rules to be fair were less likely to have been sent out of class for punishment, served time after school as punishment, suspended from school, or been in a fight to protect themselves. Similarly, Gottfredson et al., (2005) found that students who believed rules to be fair were less likely to be delinquent.

A recent development in the school climate literature is to examine the relationship between classroom management by teachers and students' perceptions of school climate (Koth, Bradshaw, and Leaf, 2008; Mitchell and Bradshaw, 2013; Mitchell, Bradshaw, and Leaf, 2010). Specifically, classroom management refers to disciplining students in order to maintain control while also promoting a positive environment where learning and good behavior are encouraged (Little and Akin-Little, 2008). In their study of 1,902 students nested within 93 classrooms, Mitchell and Bradshaw (2013) found that exclusionary disciplinary strategies and poor classroom management significantly predicted a negative perception of school climate. Students perceived a lack of order and discipline and a negative student-teacher relationship.

A positive school climate impacts teachers' experiences in the school as well. Such teachers report an increased commitment to colleagues, greater perceived support from management, and increased participation in decision-making (Honig and Oort, 2009). A positive school climate increases collaboration and cooperation amongst teachers, opening up a dialogue to share experiences and focus on student learning and engagement (Talbert and McLaughlin, 2002). Additionally, principals

who consistently work to enact a positive school climate characterized by supportive teacher relationships and learning opportunities increases both work performance and teacher morale and enhances student achievement (Donaldson, 2008; Hord and Sommers, 2008). Mitchell and her colleagues (2010) report that classroom measures of discipline and student misbehavior were more predictive of teachers' negative perception of school climate whereas school factors were more significantly predictive of students' perception of school climate.

### ***School Sector***

One aspect that has received little attention in this literature is the association between school climate and school sectors. Most of the extant research in this area has used data from public schools, or has used a variable controlling for "public school sector," or has not done either. Only a handful of studies have looked at the relationship between school sector and school climate. Those that have suffer from other methodological limitations such as small sample sizes and varied operationalizations of variables (Corten and Dronkers, 2006; Honingh and Oort, 2009; Lee et al., 1991; Lubienski, Lubienski and Crane, 2008; Shouse et al., 1992); however, these studies still illustrate the importance of examining bullying and fear within a specific school context. This is an important area of research as private schools make up over 25% of schools in the United States and enroll about 10% of all students. In 2011, 68% of private schools, enrolling about 80% of all private school students were religious-oriented. As such, it is important to examine not only research that uses a private school focus, but also those that focus on religious-oriented schools (Broughman and Swaim, 2013).



An early line of research into school sectors, Coleman and Hoffer (1987) outlined two orientations that formed the basis for both public and private schooling in America. Public schooling views education as an instrument to improve one's social mobility. Schooling allows children to overcome the station of their parents and assimilate all children into a common American identity, stripping one of ethnic and social identities. These public schools form value communities whose members share values and expectations in regards to education, but there is no interaction or social network that exists outside of the school for parents, teachers, students, and staff. In contrast, private schools are viewed as an extension of the family. The school acts *in loco parentis*—it possesses the authority of the parents to carry out the parents' will. Schools serve as means to transmit the culture of the community from one generation to the next. Members of these functional communities form a structural system for social interaction. This system exists with a high level of network density and value consistency amongst its members. Functional communities are more beneficial for members because they offer social capital. According to the Coleman-Hoffer thesis (1987), Catholic schools (and other religious schools) are functional communities since school members share the same place of worship and interact with one another both within and outside of the school. Due to the contact outside of school, members are able to establish and maintain norms, which create a positive school climate and improve student achievement (Coleman and Hoffer, 1987).

Research has suggested that the unique environment offered by religious and private schools can serve as a positive choice made by parents for their children. Given that public school is the standard in most countries, parents who choose private education for their children are more likely to expect that certain values and expectations will be universal for teachers thus resulting in a better school climate

(Bukhari and Randall, 2009; Corten and Dronkers, 2006). Another perspective suggests that Catholic schools' unique ideological commitment to build a religious school may produce greater social equity among school members. Accordingly, this commitment may encourage teachers and staff to take additional steps to educate and socialize minority students into the school's culture, also contributing to a more positive school climate (Shouse et al., 1992). Private schools may also be able to provide better learning opportunities for their students with a more extensive curriculum and a lower teacher-student ratio (Lee et al., 1991). Some research suggested that disadvantaged children who attended Catholic schools performed higher on standardized tests of vocabulary, reading, and mathematics than their public school counterparts (Coleman, Hoffer, and Kilgore, 1982; Corten and Dronkers, 2006).

Reflecting on the early work of organizational theorists, perhaps the prevailing theoretical argument concerning organizational differences of school sectors was a result of external contexts, the environment. The institution of public schooling has developed a particular set of structures that shapes the organization of individual public schools (Benveniste, Carnoy and Rothstein, 2003). Public schools operate within a bureaucratic model, because teachers and principals are accountable to multiple constituencies and responsible for the varying needs and capabilities of a multitude of students. Public schools are organized according to a bureaucracy in part because of the government's control, but also due to expectations of outside groups (parents, businesses, etc) that demand accountability and legal protections (Talbert, 1988). As a result of these varied goals and groups that demand attention, the organization of a public school is complex and subject to conflict. Public schools are less willing to respond to parents and teachers and more likely to respond to the

political environment (Lee, Bryk, and Smith, 1991). In contrast, private schools receive their legitimacy as educational institutions from a different institutional environment (family, religious affiliations, etc) than public schools (the government) (Benveniste et al., 2003). This results in a different structure; private schools are often structured by market or religious hierarchies in such a way that these schools resemble a market orientation. This orientation encourages responses from both parents' and students' demands (Corten and Dronkers, 2006; Lee et al., 1991; McGhan, 1997; Shouse et al., 1992). Private schools typically draw on a traditional model of authority that is based on religious values. Religious schools especially are organized around a value system that is universally shared by its members. Parents choose to send their children to such schools, because they support and share these norms. For example, in their ethnography of a single Catholic elementary classroom in Quebec, Zylberberg and Shiose (1991) found that "Jesus" legitimized all of the teacher's rules and that children were to act as "Jesus" taught. Additionally, the authors found that the religious courses were given the most thought and attention by teachers. This single focus should result in a less complex and more coherent school system (Scott and Meyer, 1988).

Whereas public schools may suffer from a bureaucratic orientation, private schools may thrive in the absence of one. David Sikkink (2012) postulated that:

The strength of the school community and its academic mission may derive from the decentralized governance in most private school sectors, in which local school administrators have ultimate authority to guard and nurture a functional community, which has a strong collective identity and mission that infuses the school organization. What makes this possible is decision-making at the school level, especially in regard to hiring and firing personnel based on contribution to the school's mission. The structure of authority in

private schools has the advantage of limiting the (direct) stakeholders in the school to those who have the most interest in educational outcomes of students. Rather than beholden to the democratic elaborate, which inevitably increases the power of special interest groups and established bureaucracies, schools in the private sector are expected to be more responsible to parents and students. Along with the experience of a “communal organization,” this responsiveness is likely to lead to more satisfied schooling “customers.” (p. 21).

Recognizing that public and private schools operate under different organizational models suggests that climates may also differ.

In addition to the bureaucratic differences mentioned above, Butterworth and Weinstein (1996) discussed ecological factors that influence the climate of both private and public schools. Utilizing an ecological approach allowed for the discussion of how several different systems can interact and affect one another in the school environment. “Schools, in an ecological sense, are systems of multiple and overlapping subsystems of students, teachers, parents, and staff. The interaction of these subsystems is governed by ‘laws’—the goals and values providing the glue that binds the many pieces together...” (Butterworth and Weinstein, 1996, p. 71). The behavior and attitudes of principals, teachers, students, and parents represented unique incidents that affect the overall functioning of the school (Bronfenbrenner, 1979; Lee and Song, 2012).

In their qualitative case study examining motivational climate within schools, Butterworth and Weinstein (1996) uncovered four ecological factors that created a positive school climate in private schools. First is the creation and maintenance of different niches that both support and challenge the individual differences of students. The goal of this factor is to praise and value the individual talents of all members of the school system—teachers, parents, and students. Schools created these niches by

providing a variety of activities from school plays to student government for students to specialized occupations for teachers (i.e. play director, team teacher). The second factor was the expansion of energy resources. According to this ecological factor, each member of the school community—teachers, principals, staff, and students—represents sources of energy that allow the school itself to thrive. By tapping into these energy sources and motivating each one to participate in the niches created by the first factor resulted in a highly functional, intellectual, and welcoming school climate. The third factor observed was the interdependence of each level in the school system—teachers, parents, and students. This factor revealed itself through requesting input from students, parents, and teachers regarding school decisions. By participating in regular communication with all members of the school environment, principals were able to build a positive rapport among all participants. The final factor that resulted in a positive school climate was the management of energy resources. Principals and administrators were responsible for balancing parents' and teachers' obligations and responsibilities. By delegating the tasks of members within the system, no single member would feel overwhelmed and lack energy to contribute to the school system.

These four ecological factors produced a positive school climate. Each factor allowed principals, teachers, parents, and students to feel a sense of commitment and increased involvement in their school and its activities. These approaches resulted in a sense of community and feelings of obligation to the school itself. However, these four ecological factors were specific to private schools. The bureaucratic complexity of public schools makes it more difficult to institute and maintain these four ecological factors compared to their private school counterparts. As a result, private schools possessed unique attributes that allowed a positive school climate to flourish.

Specifically, Butterworth and Weinstein (1996) acknowledge four aspects of public schools that make it difficult to establish the four ecological factors discussed above: a) increased size makes staff meetings difficult to run, b) greater teacher-child ratios make close relationships and monitoring more difficult, c) greater heterogeneity of students, parents and staff increases the difficulty of reaching a consensus and forming the necessary niches to maintain a community, and d) increased external demands increase the expectations of the school community making it follow a communal school framework.

### ***School Sector and School Climate***

By its very nature, the climate of a school is determined and maintained by teachers, students, staff, and parents. Teachers and principals often set the tone for the school through their decision-making policies that influence the climate (Sikkink, 2012). Given their daily interactions with students, it is important to examine how teachers can affect the school climate. Teachers in private schools follow their principal's leadership style, which is focused on the creation of a school community (Madsen and Hipp, 1999). A large degree of Catholic school principals and administrators also report a great deal of teacher cooperation in terms of supporting and enforcing school rules (Sikkink, 2012). Additionally, this community-driven approach leads to a professional community among teachers whom feel a shared responsibility for student learning (Madsen, 1996). Teachers in private schools also differ from their public school counterparts in terms of collaboration, efficacy, commitment, and relationships with parents. Given the dynamic quality of school climate, teachers' attitudes and behaviors can affect students' perception of school climate and subsequently their actions.

A type of private school, Catholic high schools possess a variety of factors that affect their school's effectiveness including the staff's communal organization to advance shared goals, teachers' commitment to the academic, spiritual and social development of students, and an atmosphere of mutual respect in the school (Bryk, Lee, and Holland, 1993). Building off of these findings, a report for the National Center for Education Statistics analyzed these differences within school sectors. Private school teachers reported having greater control over their teaching styles, school policies, and disciplining students. Private school teachers were also more likely to be satisfied with their jobs, express shared goals, and have lower absentee rates resulting in a more positive school climate (Alt and Peter, 2002). In their qualitative study of two private and public schools, Madsen and Hipp (1999) revealed that private school teachers reported greater commitment to their schools due to greater opportunities for professional development and autonomy over their curricula. Furthermore, teachers in private schools revealed a more positive and collaborative working relationship with fellow teachers. In comparison, the lack of these positive relationships led public school teachers to feel awkward and uncomfortable voicing their own opinions in team meetings.

In their study on teachers' organizational behavior in public and private schools in the Netherlands, Honingh and Oort (2009) found that private schools had a more cohesive school climate. School climate was operationalized using measures of teachers' commitment to colleagues, perceived support from management, and teachers' participation in decision-making. Their findings showed that private school teachers were more supportive and positive about school climate and had a higher sense of identification within the school. Similarly, teachers in Catholic schools in the U.S. reported higher efficacy, control, and a sense of community. Schools with higher

levels of efficacy also reported lower levels of student disorder (Lee et al., 1991). Social climate factors favored Catholic schools and resulted in greater staff communal organization and teachers' satisfaction. Relatedly, Shouse et al., (1992) reported that Catholic school teachers consistently rated their students' academic efforts higher than public school teachers. Catholic school administrators report high levels of trust in their students. Furthermore, these same administrators define academic achievement as one of their main focuses and acknowledge that students place great importance on learning (Sikkink, 2012).

Parental involvement was especially influential when choosing to leave and/or enter a private school. Although the topic of school choice is controversial and beyond the scope of this study, school climate was found to be a significant factor for parents when deciding to enroll their children in a private school. Research examining school choice reveals that parents choose private schools over public schools for a variety of reasons including: higher standards of behavior, academic achievement, discipline, safety, school environment, class size, and quality of instruction (Bukhari and Randall, 2009; Hunter, 1991; Johnson, 1996). In a mixed-methods study conducted in Utah, Bukhari and Randall (2009) found that parents remove their children from public schools and place them into private schools for seven reasons: quality of curriculum, religious values, moral values, quality of instruction, class size, school climate, and disciplined environment. Parents chose to withdrawal their children from public schools due to lack of teacher involvement, large class sizes, and a disorderly and undisciplined environment—a negative school climate. Although Bukhari and Randall (2009) used a broad definition of school climate, often referring to it as the environment of the school, it suggests that children and their parents viewed private schools as offering a more positive school climate.



In a recent study focusing on a nationally representative sample of public, Catholic, Lutheran, conservative Christian and other private and charter schools, smaller school size, higher teacher morale, greater parental involvement, and less conflict were all indicators of positive school climate that were more likely found among private schools, with Catholic schools showing the highest levels of parental involvement (Lubienski et al., 2008). Others attribute the positive school climate to religious missions of most private schools. Undertones of compassion and religious morals permeate many of these private schools and such lessons may produce both a positive school climate and reduce student misbehavior, bullying, teen pregnancy, and alcohol/drug use (LeBlanc and Slaughter, 2012). Additionally, it is possible that private schools are only significant predictors for certain aspects of school climate. In their multilevel study utilizing the Educational Longitudinal Study of 2002, Fan and her colleagues (2011) defined three aspects of school climate: order, safety, and discipline; teacher-student relationship and; fairness and clarity of school rules. Only the latter two were significantly predicted by students' enrollment in private and/or Catholic schools. Order, safety, and discipline was operationalized using seven measures, including: other students often disrupt class, misbehaving students often get in the way of learning, and there are gangs in this school. Teacher-student relationship was operationalized using five variables that included: students get along well with teachers, teachers are interested in students, and students often feel put down by teachers (reversed) (Fan et al., 2011). In each of these facets of school climate, private school students reported greater feelings of order in their schools and a positive relationship with their teachers.

### ***School Sector and Socioeconomic Status***

When discussing school sector, it is important to consider the effects of wealth, income, and privilege. A majority of research examining the effects of private and public schools was published more than two decades ago. At the time, researchers noted a “Catholic school advantage,” such that students who attended Catholic schools reported greater level of academic achievement (Bryk et al., 1993; Coleman et al., 1982; Greeley, 1982). Recent studies, using stronger methodological techniques, have continued to uncover a “Catholic school advantage” although it differs by subject type and grade level (Carbonaro and Covay, 2010; Hallinan and Kubitschek, 2012). An important component of this literature focuses on the role of socioeconomic status and how wealth can influence such findings.

In 1987, Coleman and Hoffer suggested that private school students reported higher rates of college attendance due to the socioeconomic status of Catholic school students’ families as well as differences in orientations and expectations of college these parents held. In fact, in 1993 41% of families in church-related schools reported an income of over \$35,000 compared to only 27% of families of students in public schools (Myths and facts about private school choice, 1993). Catholic and other private schools operate under an independent model since they rely less, if at all, on tax payer funding. A result of this economic shift is evident in the structure of the school:

Independent schools are independent of regulations that require them to accept any students other than those they declare have satisfied their own standards, or to confine hiring teachers to the pool of those legitimated by state certification. The independent school is likely, overall, to be small, have low student-teacher ratios, and draw students from wealthier families. (Peskin, 2001, p. 11)

The effects of income and wealth can therefore affect the school climate and subsequent student outcomes. However, recent research presents a new facet when examining socioeconomic status and school sector, especially in light of changing Catholic schools. Increasingly over the past five decades, Catholic schools have dropped their admission requirements and enrolled non-Catholics, students with weak academic backgrounds, and children with mild special needs. Even though this change resulted in a more heterogeneous student body and brought in increased tuition revenue, Catholic schools have recently begun closing sites and merging schools where possible (Hallinan and Kubitschek, 2012).

In their study of public and Catholic schools in Chicago, Hallinan and Kubitschek (2012) examine the role of socioeconomic status, grade level, school sector on mathematics and reading achievement. The authors uncovered that when achievement differences were observed, the effect school sector was minimal. Rather, the level of school poverty was a stronger predictor of achievement in both sectors. In fact, the authors note that eighth graders in public schools perform greater in mathematics, at all levels of school poverty, compared to their Catholic school counterparts. However, it is of mention to note that Catholic schools are better equipped to reduce the negative effects of socioeconomic status on achievement. “Once disadvantaged students have been admitted to a Catholic school, they have more opportunities to learn reading than in public schools because their background does not create a barrier to taking advantage of learning opportunities” (Hallinan and Kubitschek, 2012, p. 18). Byrk and his colleagues (1993) concur that it is through students’ academic experiences, not necessarily economic status, that differential achievement between sectors can be explained. However, these findings must be

accompanied with the reminder that Catholic schools require tuition to attend and this could impact the demographic characteristics of enrolled students.

Furthermore, in relation to school climate, wealth and privilege can create a homogenous student body (Peskin, 2001) that could affect a school's organization and reproduction of values. Additionally, the relationship between socioeconomic status and school choice could affect students' achievements well past graduation, including college (McDonough, 1997) and careers (Cookson and Persell, 1985). McDonough (1997) noted how students who attended a private high school were more likely than their public school counterparts to not only enroll in college, but to attend a four-year university. In their study of elite boarding schools, Cookson and Persell (1985) report that nearly a quarter of their sample strove to achieve a high corporate position while another 15% aim to become lawyers. Both McDonough (1997) and Cookson and Persell (1985) suggest that private schools and elite boarding schools provide students with cultural capital. This cultural capital provides students with the parental expectation to perform well in school and attend a prestigious college and serves to mediate the relationship between family background and school outcomes (DiMaggio, 1982).

### ***Summary***

Chapter two presented the current theoretical arguments surrounding school climate and school sector. The exact definition and measurement of school climate has not been determined. However, many researchers have attempted to understand its various facets. Furthermore, this section revealed the existence of a relationship between the school climate and school sector. Certain aspects of private schools may lead to a positive school climate or be more able to maintain such an environment in a

way that public schools cannot. This research serves as the framework for the current study. Chapter three will further these theoretical arguments by presenting a literature review. This review will examine the epidemiology of bullying and fear and discuss how these two concepts relate back to school climate.

## Chapter 3

### LITERATURE REVIEW

#### *Definition and Frequency of Bullying*

Despite the recent barrage of media attention, bullying behaviors have most likely always existed in school (and other) settings. However, parents and teachers typically viewed such activities as part of the socialization process; a rite of passage (Feder, 2007). It was thought to be a normal part of childhood that would eventually fade with little to no lasting consequences. It has only been within the last two decades that bullying has been recognized by scholars and teachers alike as a common form of victimization in American schools and seen as a significant impediment to school safety (Levy, Cortesi, Gasser, Crowley, Beaton, Casey, and Nolan, 2012, Nansel, Overpeck, Haynie, Ruan, and Scheidt, 2001).

Dan Olweus (1993), perhaps the leading researcher on bullying, defined bullying as consisting of three primary components: intentionality, an imbalance of power, and repetition. In addition, a wide range of behaviors can be considered bullying, including: physical aggression, relational aggression, name-calling, spreading of rumors, systematic exclusion, and destruction of property (Levy et al., 2012; Olweus, 2001). Additionally, the U.S. Department of Education (1998) defines bullying as:

Intentional, repeated harmful acts, words or other behavior, such as name-calling, threatening and/or shunning committed by one or more children against another. The victim does not intentionally provoke these negative acts, and for such acts to be defined as bullying, an imbalance in real or perceived power must exist between the bully and the victim. Bullying may be physical, verbal, emotional or sexual in nature (p. 1).

The emphasis of bullying behaviors focuses on the following: the action is unprovoked, the bully is perceived to be stronger than the victim, the bully's behavior is aggressive or causes intentional harm, it is an action performed repeatedly over time, and it occurs within the context of an interpersonal relationship characterized by an imbalance of power, whether that be age, physical strength or social standing. Additionally, bullying can take place during face-to-face interactions, over the internet, on cell phones, or through written notes (Levy et al., 2012).

Bullying exists at every stage of education: elementary, middle, high school, and colleges and universities (Chapell, Hasselman, Kitchin, Lomon, MacIver, and Sarullo, 2006). The frequency of adolescents involved in bullying behaviors, as the perpetrator, victim or both, is estimated to be between 20 and 35 percent (Levy et al., 2012). Using a survey collected by the World Health Organization, Nansel et al. (2001) analyzed 15,686 sixth through tenth graders enrolled in public and private schools in the United States. The authors found that nearly 30% of their entire sample reported either moderate or frequent involvement in bullying, whether as a bully (13%), a victim of bullying (11%), or both (6%). Other national studies have found that 34-42% of 6-17 year olds report being frequently bullied in the past year (Ybarra, Boyd, Korchmaros and Oppenheim, 2012) whereas others uncovered that 19% of students identified as bullies and 17% as victims (Melton, Limber, Flerx, Cunningham, Osgood, Chambers, Henggler, and Nation, 1998). Additionally, the

School Survey on Crime and Safety uncovered that about 25% of public school principals reported that bullying occurred on a daily basis (Dinkes, Kemp, Baum, and Snyder, 2009).

Although most of this research is mixed, the frequency of bullying also varies by sex (Haynie et al., 2001; Levy et al., 2012; Nansel et al. 2001), race/ethnicity (Peguero, 2012; Peguero and Williams, 2011), and age (Chapell et al. 2006; CDC, 2011; Haynie et al., 2001; Levy et al., 2012; Nansel et al., 2001; Nation et al., 2008). Research is mixed in regards to the relationship between sex and bullying. Overall, studies tend to find that boys are more involved than girls in bullying behaviors (Levy et al., 2012; Peguero and Williams, 2011; Smith and Gross, 2006); however, some have argued that bullying has different meanings whether it is within or across genders (Hanish, Sallquist, DiDonato, Fabes, and Martin, 2012) and that females reported higher rates of bullying victimization (Unnever and Cornell, 2004). Others suggest that boys may engage in more physical aggression, while girls participate in relational aggression (Bjorkqvist, Lagerspetz, and Kaukiainen, 1992; Khoury-Kassabri, 2011; Russell, Kraus, and Ceccherini, 2010). However, Chesney-Lind and Irwin (2007) argue this is part of a “mean girl’s” phenomenon wherein the media is focusing on girls’ aggression, even though girls are no more violent or aggressive than before. Untangling the relationship between race, ethnicity, and bullying has proven to be difficult. Peguero and Williams (2011) found that Black/African American, Latino American, and Asian American students report less bullying than White students. However, the authors argued that socioeconomic status serves as a mediating risk factor in that minority students from economically disadvantaged backgrounds were more likely to be bullied. Overall, reports tend to suggest that bullying and age exists in a curvilinear relationship: bullying increases during childhood, peaks during early



adolescence, and then declines during the late adolescent years (Nansel et al., 2001). It has also been found that older students may bully younger students (Smith and Gross, 2006). Age may also be a differential predictor based upon the type of bullying reported as age has been found to significantly predict relational aggression and its increase with age, but not physical aggression (Russell et al., 2010).

### ***Consequences of Bullying Behaviors***

There are also a variety of both long- and short-term consequences related to bullying behaviors. Both bullies and victims were at risk for future negative outcomes. Research has shown that as bullies progress through puberty and adolescence, they were more at risk for severe problems such as delinquency, substance abuse, truancy, dropping out of school, loneliness, and loss of friends (Kaiser and Rasminsky, 2003; Roberts and Coursol, 1996). Scholars have identified several individual-level predictors of bullying (Peguero 2012). For example in their study that separated multiple groups of children (bullies, victims, bullies/victims, neither bullies/victims), Haynie, Nansel, Eitel, Crump, Saylor, Yu, and Simons-Morton (2001) uncovered marked similarities between bullies and victims. Both bullying and victimization were associated with participation in other problem behaviors such as drinking, smoking, theft, property damage, and breaking their parents' rules. Furthermore, those students who reported being both bullies and victims scored the lowest on the authors' psychosocial functioning scale. These participants represented a more high-risk group due to an increased rate of problem behaviors, depressive symptoms, poorer school functioning, lack of self-control and low social competence.

One study found that bullies were more than twice as likely to experience a disciplinary event (sent to the main office) in a school year (Carlson and Cornell, 2008). Furthermore, both victims and perpetrators were more depressed and more likely to experience academic problems (Bradshaw et al., 2013; Glew et al., 2008; Hoover and Oliver, 1996; Seals and Young, 2003; Unnever and Cornell, 2003b). Bullying correlates with substance use, violent behavior (Farrington and Ttofi, 2011; Kim et al., 2011), unsafe sexual behaviors (Litwiller and Brausch, 2013), and suicidal behaviors (Klomek et al., 2010; Litwiller and Brausch, 2013). Recently, the American Medical Association (AMA) published a report recognizing the possible psychiatric and psychological consequences of bullying. According to the report, bullies have a past riddled with physical and emotional abuse, which may be expressing itself in adjustment issues or conduct disorders. Also, victims were more likely to develop anxiety and depressive disorders and possess feelings of rejection and loneliness (AMA, 2002; Bond, Carlin, Thomas, Rubin and Patton, 2001; Craig, 1998; Hawker and Boulton, 2000; Unnever and Cornell, 2003b). In a longitudinal study of 503 boys in Pittsburgh, bullying victimization at the age of 10 significantly predicted depression in later adolescence (Farrington, Loeber, Stallings, and Ttofi, 2011). Newman, Holden, and Delville (2005) reported a link between isolation as a result of bullying in high school and increased levels of stress during college.

Research indicated that chronic bullies appeared to maintain such aggressive behavior into adulthood (Farrington and Ttofi, 2011; Farrington et al., 2011; Oliver, Hoover, and Hazler, 1994; Piquero, Connell, Piquero, Farrington, and Jennings, 2013) and abuse drugs and alcohol (Farrington and Ttofi, 2011; Kim et al, 2011), which negatively influenced their ability to develop and maintain positive relationships. In his study on long-term consequences of bullying, Olweus (1993) uncovered that 60%

of children characterized as bullies in grades six through nine had at least one criminal conviction by the age of 24. Farrington and Ttofi (2011) utilized the Cambridge Study in Delinquent Development to investigate bullying and the life course among 411 males. This large scale longitudinal study revealed that self-reported bullying at the age of 14 predicted violent convictions (i.e. assault, robbery, offensive weapon crimes, threats to harm) between the ages of 15 and 20; low job status at 18; drug use at 32; and an unsuccessful life at 48. An unsuccessful life was measured by relationship problems, anxiety/depression, accommodation problems, employment problems, involvement in fights, drug/alcohol problems, self-reporting offending, and recent convictions. Most notably, these relationships remained significant when of childhood risk factors (such as hyperactivity, family income, criminal convictions of parents, and disrupted family) were used as controls (Farrington and Ttofi, 2011; Kim et al., 2011). However, it should be mentioned that some relationships (such as violent convictions between the ages of 15 and 20) became weaker and fell out of significance as the participants aged (Farrington and Ttofi, 2011). However, another study on the relationship between self-reported bullying behaviors and male offending trajectories found that bullying and antisocial behavior were not distinct behaviors, but rather part of a continuum of aggression (Piquero et al., 2013). While Piquero and his colleagues (2013) did find a significant relationship between self-reported bullying and certain adult offending trajectories, the relationship became insignificant once controls accounting for childhood risk factors were inputted.

The definition, frequency, and possible consequences of bullying behaviors are crucial for enacting intervention policies in schools. Currently, 46 states have passed anti-bullying legislation and the Department of Education has put forth a comprehensive bullying prevention plan (U.S. Department of Education, 2011). The

Department of Education suggested each school be aware of bullying in the environment and work to prevent victimization. Their suggestions echo Olweus' original prevention plan. His plan, and thus the Department of Education's recommendations, was focused on: helping students and parents become aware of the problem, having teachers work with students to develop class rules against bullying, and the presence of cooperative learning activities including individualized interventions, reduce social isolation and increase adult supervision (Olweus, 1993, 2001; Olweus et al., 1999; U.S. Department of Education, 2011). Importantly, these suggestions more or less call for an increase in a positive school climate.

### ***School Climate and Bullying***

The relationship between school climate and bullying behaviors is important to examine due to the already established literature between school climate and student delinquency (Gottfredson et al., 2005; Payne, 2012). Students who perceive a positive school climate report lower levels of truancy, victimization, violence, and misbehavior. The role of schools and the creation of a positive climate should not be diminished:

Schools also need to pay attention to how they enforce rules and how adults and children interact within schools. By creating a climate in which students learn positive behaviors and problem-solving skills, in which they have meaningful interactions with adults, and in which they feel fairly treated, schools can reduce student misbehaviors (Kupchik, 2010, p. 17).

As a form of aggression, bullying may therefore be impacted by the school environment. Since it can be argued that bullying exists on a continuum of aggression

throughout the lifecourse and can predict violent offending and convictions as an adult (Farrington and Ttofi, 2011), it is important to recognize how early factors, such as school climate, affect children and adolescents.

Due to limitations of cross-sectional data, a causal relationship between school climate and bullying cannot be stated. However, research has highlighted a significant relationship between the two concepts. Students who reported bullying others were more likely to maintain a poor perception of school climate (Kasen, Berenson, Cohen and Johnson, 2004; Nansel et al., 2001), while those schools with less bullying were characterized by positive disciplinary actions, strong parental involvement, and high academic standards (Kasen et al., 2004). Furthermore, in a meta-analysis of 153 studies focusing on bullying, school climate was revealed as a significant predictor for both bullying victimization and bullying perpetration (Cook, Williams, Guerra, Kim, and Sadek, 2010). Defined as "...the degree of respect and fair treatment of students by teachers and school administrators as well as a child's sense of belonging to school," (Cook et al., 2010, p. 67) school climate was one of the strongest predictors among bullying victims. However, it was not significant among students who were classified as both bullies and victims.

Mixed methods studies examining the relationship between school climate and bullying report mixed results. For instance, using survey data from 2,678 elementary, middle, and high school students along with 14 focus groups consisting of 115 youth total, Guerra, Williams, and Sadek (2011) revealed the complex nature of school climate and bullying. Survey data revealed that a negative school climate was a significant predictor of both bullying perpetration and victimization. However, the focus groups revealed that school climate was not viewed as an important predictor of either bullying or victimization. Although, the authors do caution that normative

views of bullying could affect students' perception of their school climates (Guerra et al., 2011). Additional aspects of school climate—connectedness to one's school and supportive teachers—have also been found to reduce bullying and allow students a safe environment where they feel they can report victimization incidents (Eliot, Cornell, Gregory, and Fan, 2010; Hong and Espelage, 2012). This latter point is particularly salient, because by notifying a teacher or adult at school reduces the chances of re-victimization (Eliot et al., 2010).

The existing research on aggression, delinquency, and school climate calls for an expansion of the school climate research to examine the relationship between bullying and school climate, both at the individual and structural level. Ma's (2002) research was one of the first to use middle schools as a unit of analysis in reference to bullying behaviors. The author found that middle schools with less bullying were characterized by positive disciplinary actions, strong parental involvement, and high academic standards. Similarly, a study of middle school boys found that those boys who had positive perceptions of school climate exhibited less aggressive and delinquent behaviors (Kuperminc, Leadbeater, Emmons, and Blatt, 1997). In contrast, Yoneyama and Naito (2003) found that certain school climates were more likely to produce bullies. These included schools that were authoritarian, hierarchical and focused on power-dominant relationships between students and teachers. Examining the relationship of yearly disciplinary infractions, Carlson and Cornell (2008) observed that persistent bullies (those nominated by their peers as bullies for over two years) were more than twice as likely as a control group of non-bullies and those bullies who desisted from bullying, to be sent to the main office for a disciplinary event.

In expanding this literature, scholars have begun to look at the school environment from an ecological standpoint (Hong and Espelage, 2012; Lee and Song, 2012; Richard, Schneider, and Mallet, 2012; Swearer and Espelage, 2004). By utilizing a ‘whole school’ approach, scholars were able to examine how specific school-level climate variables affected individual rates of bullying, both within and between schools. Breaking down the different types of bullying, the authors found that the presence of school security measures, the quality of student-teacher relationships, and the percentage of academically-on-track students significantly affected physical bullying. However, for verbal/relational bullying, school security, the quality of student-teacher relationships and mean academic achievement were significant predictors (Richard et al., 2012). Overall, there was less bullying of all types in schools that were perceived safer by students, had higher achieving students, and possessed positive student-teacher relationships. Using an ecological model, Lee and Song (2012) found that students who reported a positive school climate were less likely to be the victim of bullying behaviors. Additionally, the authors found that parental involvement had an indirect influence on bullying behaviors through school climate. Parental involvement with teachers, peers, and the school influenced a positive school climate, which thus decreased bullying experiences among students. Related to these findings is research by Williams and Guerra (2011) who examined the role of collective efficacy in shaping bullying and found that schools with high levels of collective efficacy—measured as cohesion and trust, and teacher informal social control (whether students believe teachers will intervene to stop bullying)—had lower rates of bullying compared to schools with less collective efficacy.

It is also crucial to recognize the importance of teachers’ and students’ attitudes towards bullying behaviors, what could be referred to as a culture of bullying.

Such a culture exists when "...the aggression of bullies is inextricably linked to the passivity of victims in a context where adults are generally unaware of the extent of the problem, and other children are unsure about whether or how to get involved." (Charach, Pepler, and Ziegler, 1995, p. 17). More often than not, other school children reinforce the bullying of others, or simply do not stop the harassment (Jeffrey, Miller, and Linn, 2001). Bullying is not typically confined to one bully and one victim as there are often multiple bullies and victims during a single incident, and moreover, the victimization often occurs in front of one's peers (Salmivalli, 2010). A bullying culture is characterized by a shared set of beliefs that support and/or encourage bullying behavior (Charach et al., 1995; Unnever and Cornell, 2003a). Student perceptions of a school environment that condones bullying behaviors were pervasive throughout middle and high schools (Goldweber, Waasdorp, and Bradshaw, 2013; Unnever and Cornell, 2004). In fact, in one study of 2,472 middle school students, 64% claimed that students "almost never" or "once in a while" tried to prevent bullying. Additionally, victims were less likely to report bullying if they perceived a school climate that was accepting of such negative bullying behaviors (Unnever and Cornell, 2004) and were less likely to participate in the school community as a whole (Morrison, 2006). When schools work to alter students' perceptions of bullying and increase trust in their schools, students report lower rates of bullying and higher rates of reporting bullying incidents to adults (Perkins, Craig, and Perkins, 2011).

Adults and teachers in the school also affect bullying through their actions, whether they monitor children's behavior and stop the bullying or ignore the victimization (Oh and Hazler, 2009). Teachers may serve to foster bullying by either failing to promote respectful actions or by not disciplining such behavior (Espelage and Swearer, 2003; Goldweber et al., 2013). In their study of bullying culture,



Unnever and Cornell (2003a) report that 36% of their sample claimed that teachers “almost never” or “once in a while” tried to prevent bullying. Even more telling, the analysis revealed that only 31% of students believed that their teachers have done “much” or “a good deal” to counteract bullying behaviors throughout the school year. When bullying prevention programs work to restructure and create a positive school climate, intervention by bystanders (both teachers and students) is more likely to occur (Polanin, Espelage, and Pigott, 2012). Presumably, a culture of bullying would be reinforced and supported by a lack of order, discipline, and safety in a school in addition to negative student-teacher relationships, both of which are characteristics of school climate.

### ***School Safety and Fear***

Fear of crime has been a prevalent topic in criminological research since Garofalo’s (1979) study using the National Crime Survey (NCS). Garofalo (1979) initially uncovered that previous prior victimizations increased perceptions of fear and since then, numerous correlates of fear of crime have been uncovered, sometimes with conflicting results (Hale, 1996). These included vulnerability to criminal victimization, prior victimizations, the social environment, neighborhood constructs, gender, age, and race (Chadee and Ditton, 2003; Hale, 1996; Schafer, Huebner, and Bynum, 2006; Sutton and Farrall, 2005). However, the majority of research has focused on risk factors and correlates for fear of crime among adults, and only within the past two decades has research attention focused on adolescents’ fear.

The extant research indicates that the strongest and most consistent indicator of student’s fear of crime is previous victimization (Alvarez and Bachman, 1997; Schreck and Miller, 2003; Wallace and May, 2005). Initial attention into this new

arena focused on individual level correlates. For instance, in one of the earliest studies to utilize the School Crime Supplement (a survey that is part of the National Crime Victimization), Alvarez and Bachman (1997) examined students' perceived fear of crime both at school and traveling to and from school. The likelihood of being afraid at school was increased most by experiencing either a theft or violent victimization. In predicting fear of crime at school, the only significant demographic variables were younger students and students from low income families. However, black and Hispanic students were more fearful than other races when traveling to and from school, as were females (Alvarez and Bachman, 1997). May and Dunaway (2000) observed that the effects of victimization and subsequent fear of crime was strongest for females. Students who possessed delinquent friends were also more likely to be afraid of crime (Welsh, 2001). One of the most sophisticated studies examining fear among students utilized longitudinal data from nearly 4,000 public school students in the state of Kentucky in order to determine a causal relationship. Strong support was found for the effects of weapon carrying on subsequent fear, risk, victimization, and offending. Additionally, both gun carrying and non-gun weapon carrying increased fear of school crime, perceived risk, and victimization (Wilcox, May, and Roberts 2006).

While it is important to understand the relationship between fear and individual correlates, scholarly research has expanded to examine the macro-level influence of the school environment itself. School security measures—the very ones put in place to protect students—have been found to actually increase a student's fear (Bachman, Randolph, and Brown, 2011; Schreck and Miller, 2003). Crime prevention practices such as police presence in schools, locker checks, and the banning of backpacks and book bags have not been found to reduce students' levels of fear of crime (Schreck

and Miller, 2003; Tillyer, Fisher, and Wilcox, 2011). In fact, Tillyer et al., (2011) found that metal detectors were the sole security measure found to reduce students' fear of crime. Additionally, in their analysis of fear of crime and race, Bachman, Randolph and Brown (2011) found that while the presence of metal detectors in schools increased levels of fear for both black and white students, the presence of security guards only increased fear levels for white students. White students were also more afraid if they attended school in an urban area, while black students were more fearful in suburban and rural schools. These findings are particularly telling in light of recent literature examining the increasing use of criminal justice style policies in schools (see Kupchik, 2010).

### ***School Safety and School Climate***

Violence at schools results in an atmosphere of fear amongst students and teachers that can be damaging to a school's educational mission (Anderson, 1998). However, "school violence is not only overt actions, such as shootings and physical fights, but is also subtly expressed in a school climate that can engender fear at any moment" (Hernandez and Seem, 2004, p. 256). This covert form of "violence" that results in fear is the result of bullying, harassment, ridicule, and the lack of teacher intervention. Such an environment is maintained by the school climate and a positive change in school climate can result in increased perceptions of safety in the school (Anderson, 1998). Fear of being harmed at school can have detrimental effects on students causing them to avoid school (Khoury-Kassabri, 2011), suffer academically (Juvenon et al., 2000), and report low self-confidence (Brown and Benedict, 2004). This research suggests that a decrease in school climate leads to an increase in school

disorder, which then increases fear among students. Few studies recognize the need to examine school climate and school safety variables.

School safety surveys tend not to include items assessing the contribution of day-to-day climate variables to school safety perceptions. Conversely, many school climate surveys do not include items measuring the potential contribution of school violence to perceptions of school climate. In contrast, most current theoretical models of the prediction and prevention of youth violence inherently recognize the importance of day-to-day interactions that define school climate in shaping both the perception and reality of school violence or school safety (Skiba, Simmons, Peterson, McKelvey, Forde, and Gallini 2004, p. 153). Due to this relative lack of research, it is important to examine the literature that does exist.

Similar to the relationship between school climate and bullying, a positive school climate has also been shown to increase students' perceptions and feelings of safety (Astor, Benbenishty, Zeira, and Vinokur, 2002; Bachman, Gunter, and Bakken, 2011; Welsh, 2001). For example, Welsh (2001) found that measures of respect for students, fairness of rules, and clarity of rules were significantly decreased fear among students. Astor et al., (2002) found cross-cultural support for the relationship between school climate and fear in both Israel and the U.S. The authors found that measures of teacher support, student participation, clarity of rules, and overall school maintenance was each related to fear of crime. However, others have found that clarity and fairness of rules was not a significant predictor for fear of school violence among a sample of 2,787 15 year olds in the United States (Akiba, 2010). Although Akiba (2010) did not define her measures as school climate, she did uncover correlates between student's fear of school violence and climate variables. For instance, students who perceived their classrooms to be orderly, felt strongly connected to their school, or reported

strong bonds with their teachers reported a significantly lower level of fear. In arguing the importance of school bonds, Stewart (2003) claimed that students who perceive school rules as fair and clear will be more likely to accept said rules and abide by them, thus creating a safe environment. Specifically, schools that ignore misconduct, schools where teachers and administrators are not aware of the rules and where students do not believe in the rules—all measures of school climate—contributes to an unsafe school environment (Gottfredson, 1989). Teachers who perceive a negative school climate wherein they question leadership abilities of administrators or show concern for relationships among and between teachers and students increases fear of school violence (Finley, 2003).

Hernandez and Seem (2004) provide a model of a safe school that identifies three components that decrease feelings of fear. Each of the components is a measure of school climate. They include: context, psychosocial variables, and school behaviors. Context refers to the school atmosphere, specifically a common set of norms and values as well as relationships between and among students, teachers, and staff. Psychosocial variables refers to communication, cooperation, and input from teachers and students when dealing with school affairs. Additionally, psychosocial variables includes a throughout and clear code of conduct, school bonding, feelings of connectedness, and academic expectations of success. Finally, school behaviors are the actions by students, teachers, and staff and whether such actions are threatening or supportive (Hernandez and Seem, 2004). Each of these components represents a measure of school climate. Each aspect can lead to a reduction in fear and increase in feelings of safety by creating a more positive school climate.

The relationship between bullying, school climate, and fear is relatively undeveloped in the literature. However, the studies that have been conducted suggest

that boys who exhibit aggressive and bullying behaviors in school perceive a more negative school climate and feel unsafe in such an environment (Putallaz and Bierman, 2004). In their study examining bullying and school climate—defined as feelings of safety and belonging—Goldweber and her colleagues (2013) surveyed 10,254 middle school students and 2,509 high school students. Investigating levels of bullying in the classroom, the authors determined if students were enrolled in a high involvement or low involvement bullying classroom, the latter reflecting low levels of bullying victimization. Students in the high involvement bullying classroom, whether involved in the bullying or merely bystanders, were significantly more likely to report feeling less safe in the school and reporting lower levels of connectedness and belonging to the school.

It must also be stated that an atmosphere of fear can in fact influence school disorder and student misbehavior (Anderson, 1999; Plank, Bradshaw, and Young, 2009). Students who attend schools that are rife with anxiety and fear may act more aggressively towards other students in a show of self-protection (Anderson, 1999). Plank and his colleagues (2009) observed a feedback loop between school disorder and fear wherein student violence and disruptive behaviors may lead to a fear climate, which then results in students feeling threatened and lashing out, which in turn increases school disorder. It should also be considered that school climate may differentially impact students' fear of crime and students' perception of school violence (Astor, Benbenishty, Vinokur, and Zeira, 2006). Research suggests that fear of crime and perception of violence are two separate constructs and school climate—measured as relationships with teachers, fairness of rules, and maintenance of school grounds—significantly predicts perceived seriousness of school violence as a problem, but not students actual fear of crime (Astor et al., 2006). In their path analysis, fear of

school violence is better predicted by previous physical and verbal victimization by students and/or teachers.

Other measures of school culture have also proven to be important. For example, even after controlling for measures of victimization and other factors, students were more likely to be fearful in schools with higher levels of expulsions and suspensions (Bachman, Gunter, and Bakken, 2011). Sacco and Nakhaie (2007) extended their environmental study beyond the classroom and focused on the relationships between students, their teachers, and parents and its affect on perceived fear. The authors found that social capital—effective parenting, effective peer relationships and effective teacher relationships (the last two measures of school climate)—enhanced students’ perceptions of safety. Scholars identified the presence of gangs, attacks on teachers, and easy availability of drugs and alcohol in the school also increased student perception of fear (Alvarez and Bachman, 1997).

In one study investigating the underlying components of physical safety and security at school, the authors found four factors that influenced students’ perceptions of safety (Skiba et al., 2004). School connection and climate referred to students’ feelings of connectedness, relationships and bonds with teachers, and a clear understanding of the school rules. Incivility and disruption also affected students’ perceptions of fear. This factor refers to minor acts of delinquency and deviance such as name-calling, cheating on tests, and physical fights. Personal safety referred to a students’ feelings of safety throughout the school building as well as the presence (or lack thereof) of weapons. The final factor measured major acts of delinquency at school such as the use and sale of drugs and alcohol, truancy, and thefts. Perhaps most telling in this literature is the finding that school climate and connectedness were more

predictive of students' perceptions of school safety than were items measuring actual school violence (Skiba et al., 2004).

### ***Research Questions and Hypotheses***

This literature review has outlined the current theory and research that has examined the relationships between school climate, bullying, and fear. From this review, three research questions have emerged:

1. What is the relationship between physical and verbal bullying victimization and school climate?
2. What is the relationship between students' experiences of fear and school climate?
3. Do students recognize school climate factors that could reduce bullying and fear?

Based upon these research questions and the current literature, this study sets out to test six hypotheses:

1. Students in schools with negative climates will report higher levels of bullying compared to those in schools with more positive climates.
2. Students in private schools will report lower levels of bullying.
3. Students in schools with negative climates will perceive higher levels of fear at school compared to those in schools with more positive climates.
4. Students in schools with negative climates will perceive higher levels of fear while traveling to/from school compared to those in schools with more positive climates.
5. Students in private schools will perceive lower levels of fear compared to students in public schools.
6. Students who have experienced bullying will have greater levels of fear, net of school climate variables, compared to those students who have not been bullied.



## *Summary*

This chapter reviewed the literature on a variety of topics and has illuminated very few consistencies within the literature predicting bullying and fear among secondary students. We know that being the victim of theft and violence, which is not mutually exclusive of bullying, all serve to increase levels of fear for students. We also know that students who are fortunate enough to attend schools where the rules are fairly enforced and there is a climate of social cohesion are less likely to experience bullying and to be fearful. What is less clear is the extent to which private versus public schools are more likely to engender a positive climate, thereby decreasing both the levels of bullying and perhaps perceptions of fear. Using a mixed methods research design, this study will examine the effects of school climate on bullying and fear among students. The quantitative component will use the School Crime Supplement (SCS) of the National Crime Victimization Survey (NCVS) to predict levels of bullying and perceptions of fear for the total sample, as well as sector-specific models for both private and public schools. The second phase of this research will utilize open-ended questions soliciting information from an availability sample of introductory classes at a northeastern public university. The primary purpose of this phase of the research is to understand the underlying mechanisms and school factors that affect students' experiences of fear and bullying. Chapter four will explore the mixed-methods utilized, discuss the quantitative sample, outline the operationalization of various quantitative measures, and present how the hypotheses of this research study will be tested.

## **Chapter 4**

### **METHODOLOGY**

Two sources of data will be used to explore the research questions set forth in this study: a quantitative component consisting of the 2011 School Crime Supplement (SCS) of the National Crime Victimization Survey (NCVS) and a qualitative component that utilizes open-ended questions with an availability sample of first year college students. This mixed methods approach will serve to enhance the validity of the results. Additionally, the use of mixed methods will offset the limitations of any one particular approach. Taken together, the results from the quantitative and qualitative components of this study will provide a more well-rounded narrative regarding school sector and school climate.

#### ***Quantitative Data***

##### ***Sample***

This study utilized data from the SCS from 2011. The data was retrieved from the Inter-University Consortium for Political and Social Research (ICPSR). The NCVS is a major survey undertaken yearly by the Census Bureau for the Bureau of Justice Statistics (BJS). Occasionally, the NCVS collects additional information regarding a specific issue. The SCS is such a survey. The purpose of the SCS is to obtain information regarding school-related victimizations, student perception of crime and safety, student activity, and the school environment. It is currently

administered every two years using both face-to-face interviews and web based surveys.

The SCS is only given to household members aged 12 to 18 following the completed NCVS interview. These individuals have to be in primary or secondary education programs and attending school at least six months prior to the interview. Following the completion of the NCVS interview by the head of the household, a student between the ages of 12 to 18, living in that household, is then given the SCS. This dataset is well suited for analyses because it is a relatively large sample of 12 to 18 year olds, who are the majority of school-age children. Also, because the sample is randomly selected, these data will be generalizable at the national level. In total, 6,546 participants were selected to complete the SCS interview. After eliminating respondents who did not meet the sample criteria of the SCS, the sample size is  $n = 5,851$ . Eliminated participants are notated in the SCS as being “out of universe.” According to the SCS codebook, responses that were noted as out of universe indicate that either a response is not anticipated for that question, most likely due to logical skip patterns in the survey, or that a question was not asked due to the skip pattern. Further analyses determined that the majority of these respondents had either not attended school in the past year, were home schooled in the past year, or had spent the entire past year being home schooled. Responding positively to any of these questions would lead to the skip pattern. As previously mentioned, the SCS only gathers data on those students who attended school in the past six months.

Demographically, the sample consists of 50.4% male ( $n = 2,949$ ), 58.4% non-Hispanic white ( $n = 3,417$ ), and 22.4% Hispanic of any race ( $n = 1,310$ ). The respondents’ ages range from 12-18 with a mean age of 15 years old. Most of the sample attended public school (92.1%,  $n = 5,390$ ). Of those who attended private

schools, 73.0% (n = 332) of those schools are affiliated with a religion. See Table 4.1 for sample descriptives. Additionally, Table 4.2 shows an overview of the descriptive statistics for each variable, including the valid n, mean, mode, range, and standard deviation<sup>1</sup>.

**Table 4.1: Sample Characteristics of the School Crime Supplement, 2011**

<b>Variable</b>	<b>n</b>	<b>Percentage</b>
School Sector		
Public	5390	92.1%
Private	461	7.9%
Religious Affiliation of Private Schools		
Yes	332	73.0%
No	123	27.0%
Sex		
Male	2949	50.4%
Female	2903	49.6%
Race		
Non-Hispanic White	3417	58.4%
Non-Hispanic Black	705	12.0%
Non-Hispanic Other	419	7.2%
Hispanic of any Race	1310	22.4%
Age		
12	865	14.8%
13	940	16.1%
14	887	15.2%
15	921	15.7%
16	914	15.6%
17	886	15.1%
18	439	7.5%

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<sup>1</sup> Secondary analysis of the SCS was approved by the University of Delaware's Institutional Review Board.

**Table 4.2: Descriptive Statistics of Variables of Interest**

<b>Variable</b>	<b>n</b>	<b>Mean</b>	<b>Mode</b>	<b>Range</b>	<b>Standard Deviation</b>	<b>Cronbach's Alpha</b>
In-Person Bullying Scale	5768	.087	0	0-1	.173	.745
Fear at School	5777	.172	0	0-1	.377	--
Fear Traveling to/from School	5777	.113	0	0-1	.317	--
Classroom Environment Scale	5779	2.50	2	1-4	.727	.610
Teachers' Treatment of Students Scale	5767	3.20	3	1-4	.492	.695
Rule Clarity/Fairness Scale	5744	3.17	3	1-4	.456	.770
Bonds with Adults at School Scale	5728	3.30	3	1-4	.450	.872
Security Guards	5851	.688	1	0-1	.464	--
Staff/Adults Monitoring Hallways	5821	.886	1	0-1	.318	--
Metal Detectors	5820	.101	0	0-1	.307	--
Locked Entrances/Exits	5821	.642	1	0-1	.480	--
Required to wear IDs	5821	.241	0	0-1	.428	--
Security Cameras	5822	.762	1	0-1	.426	--
Drug Availability Scale	5793	.099	0	0-1	.193	.875
Fights	5793	.045	0	0-1	.207	--
Gangs	5778	.171	0	0-1	.376	--
Truancy	5752	.061	0	0-1	.240	--
Weapon	5760	.025	0	0-1	.157	--
School Sector	5851	.079	0	0-1	.269	--
Sex	5852	.500	0	0-1	.500	--
Race and Ethnicity	5851	--	1	--	1.240	--
Age	5851	.540	1	0-1	.498	--
Grades	5704	3.190	3	0-4	.794	--
Parental Education	5811	.594	1	0-1	.491	--
Previous Victimization – Violent Incidents	5846	.009	0	0-1	.097	--
Previous Victimization – Property Incidents	5850	.040	0	0-1	.201	--

## *Measures*

This study will examine the relationship between school sector, school climate, and student experiences of fear and bullying. The following sections will describe the dependent, independent, and control variables utilized in this study. Additionally, factor analysis will be used when necessary. Factor analysis is a statistical method that fulfills parsimony. It is a simplified statistical analysis that helps the researcher reduce the number of measures and items. It also determines the variability among constructs. One of the main purposes of factor analysis is to confirm which latent variables underlie a larger measure or scale. These variables—or factors—explain the variance of an overarching component. Factor analyses produce a matrix, with factor loadings that express the correlations between the tests and the factors. Factor loadings range from -1 to +1; these two values represent strong correlations whereas 0 suggests a weak correlation. In this study, principal components factor analysis with a varimax rotation was utilized<sup>2</sup>. Additionally, factors were extracted based on eigenvalues greater than 1; factor loadings will be reported. Once the factor analysis revealed the number of factors underlying a series of measures, averaged scales were created to serve as independent and dependent variables.

## *Dependent Variables*

### *Bullying*

Bullying measures were investigated using factor analysis. Seven variables measuring physical and verbal bullying produced one factor—in-person bullying—

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<sup>2</sup> Due to the possible correlation of school climate variables, a direct oblimin or an oblique rotation was also examined. In both the varimax and oblique rotations, four school climate factors emerged identifying the same variables.

that explained 40.65% of the variance. See Table 4.3 for the factor loadings. Since the factor analysis revealed that these measures loaded onto one factor, an averaged scale was created for in-person bullying. The scale was operationalized using variables that asked whether students had been physically and/or verbally bullied during the past school year<sup>3</sup> (0 = no; 1 = yes). These measures asked whether another student has: pushed you, shoved you, tripped you, or spit on you (8.0%); tried to make you do things you did not want to do, for example, give them money (3.3%); destroyed your property on purpose (2.8%); made fun of you, called you names, or insulted you in a hurtful way (17.9%); spread rumors about you or tried to make others dislike you (18.7%); threatened you with harm (5.2%); excluded you from activities on purpose (5.5%). Over a quarter of all respondents (28.2%) reported being bullied in-person. These measures produced a scale with a Cronbach's alpha of 0.745.

**Table 4.3: Factor Analysis and Loadings of Physical and Verbal Bullying Items**

<b>Has another student...</b>	<b>In-Person Bullying</b>
Pushed you, shoved you, tripped you, or spit on you?	.705
Tried to make you do things you did not want to do, for example, give them money or other things?	.490
Destroyed your property on purpose?	.501
Made fun of you, called you names, or insulted you, in a hurtful way?	.748
Spread rumors about you or tried to make others dislike you?	.709
Threatened you with harm?	.652
Excluded you from activities on purpose?	.608

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<sup>3</sup> Preliminary analyses indicated that separate physical and verbal bullying scales did not yield differential predictors and factor analysis was chosen as a sufficient method to determine scale creation.

## *Fear*

Two variables were used to measure respondents' fear. Students were asked how often they were afraid someone would attack/harm them on school property and if they were afraid that someone would attack/harm them on the way to/from school (1 = most of the time, 2 = sometimes, 3 = almost never, 4 = never). Because these ordinal level measures were not normally distributed and were highly skewed, response choices were dichotomized (0 = no, 1 = yes). The original frequency distributions of these ordinal variables are presented in Tables 4.4 and 4.5<sup>4</sup>. Student responses 1-3 (most of the time to almost never) were recoded 1, indicating the experience of fear and response option 4 (never) was recoded 0, reflecting an absence of fear. Nearly two in ten students were afraid at school (17.2%), while 11.3% experienced fear traveling to or from school.

**Table 4.4: Frequency Distribution of Ordinal Variable Measuring Fear at School**

<b>Response</b>	<b>Frequency</b>	<b>Valid Percent</b>
Never	4787	82.8%
Almost Never	822	14.2%
Sometimes	147	2.5%
Most of the Time	24	0.4%

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<sup>4</sup> Further analyses were conducted to investigate and control for the apparent skewness. Negative binomial regression analyses did not alter significant findings.



**Table 4.5: Frequency Distribution of Ordinal Variable Measuring Fear Traveling to/from School**

<b>Response</b>	<b>Frequency</b>	<b>Valid Percent</b>
Never	5127	88.7%
Almost Never	544	9.4%
Sometimes	99	1.7%
Most of the Time	10	0.2%

*Independent Variables*

*School Climate*

Fifteen variables measuring various dimensions of school climate were assessed using factor analysis. Factor analysis revealed the emergence of four factors that explained 63.29% of the variance. This diagnostic test determined the measurement of four scales of school climate. The four scales were created by averaging the responses of the school climate measures. See Table 4.6 for the factor analysis. The use of these 15 variables, along with the naming of the factors, was supported by the literature review. Two variables measured student perception of the classroom environment: whether students are distracted in the classroom due to others' misbehavior and how often do teachers punish students during class (1 = most of the time, 2 = sometimes, 3 = almost never, 4 = never). Combining two of the response options, 'most of the time' and 'sometimes,' about half of respondents reported being distracted in class (50.4%) or witnessing a teacher's punishment (54.1%). These two variables created a classroom environment scale with a Cronbach's alpha of 0.610. School climate researchers suggest that this factor is defined by the management of

individual classrooms such that teachers maintain control (Koth et al., 2008; Little and Akin-Little, 2008; Mitchell and Bradshaw, 2013; Mitchell et al., 2010).

Three items were used to measure teacher's treatment of students in school. Students were asked if they felt teachers treat students with respect, care about students, (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree) or if teachers say/do things that make students feel bad about themselves (1 = strongly agree, 2 = agree, 3 = disagree, 4 = strongly disagree). The last measure (do teachers say/do things that make students feel bad about themselves) was reverse coded so that a higher response choice correlates to a more positive teacher-student relationship. Of all respondents, 31.8% strongly agree that teachers treat students with respect, while 33.7% believed teachers care about students; however, nearly two in ten (16.2%) believed that teachers treat students negatively. These measures created a teachers' treatment of students scale with a Cronbach's alpha of 0.695. This factor refers to the relationship between teachers and students. In a positive school climate, teachers and students maintain a positive, caring relationship that is based on respect and trust (Cohen et al., 2009; Zullig et al., 2010).

Rule clarity and fairness was operationalized using five measures. Respondents were asked about the application of rules and punishments (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree). Of those who responded, 35.2% of students strongly believed that everyone is aware of the school rules, 26.2% believed that school rules are fair and 25.1% believe that school rules are strictly enforced. Additionally, 32.1% strongly believed that the punishment for breaking the rules is the same for everyone and 25.2% reported that students were aware of the punishment for breaking a specific rule. A scale, rule clarity and fairness, was created using these variables with a Cronbach's alpha of 0.770. The fairness and clarity of

rules has consistently been found to predict student delinquency and school climate (Fan et al., 2011; Gottfredson et al., 2005; Welsh, 2001).

**Table 4.6: Factor Analysis and Factor Loadings of School Climate Items**

	<b>Classroom Environment</b>	<b>Teacher's Treatment of Students</b>	<b>Rule Clarity and Fairness</b>	<b>Bonds with Teachers</b>
Students are distracted in classroom due to others' misbehavior	<b>.806</b>	.069	.202	.015
Teachers punish students during class	<b>.859</b>	.063	.002	.031
Teachers treat students with respect	.115	<b>.649</b>	.369	.291
Teachers care about students	.055	<b>.606</b>	.327	.431
Teachers do or say things that make students feel bad about themselves (reverse coded)	.052	<b>.813</b>	.033	.060
Everyone knows what the school rules are	.175	-.014	<b>.637</b>	.217
The school rules are fair	.152	.260	<b>.608</b>	.228
The punishment for breaking school rules is the same no matter who you are	-.023	.319	<b>.681</b>	.100
The school rules are strictly enforced	.000	.113	<b>.715</b>	.174
If a school rule is broken, students know what kind of punishment will follow	.056	.035	<b>.730</b>	.209
Teacher really cares about you	.059	.046	.144	<b>.762</b>
Teacher notices when you are not there	.075	.027	.188	<b>.756</b>
Teacher listens to you when you have something to say	.021	.171	.224	<b>.808</b>
Teacher always wants you to do your best	.004	.194	.215	<b>.786</b>
Teacher believes that you will be a success	-.065	.251	.195	<b>.775</b>

The final measurements of school climate involved bonds with teachers. Five measures were used to operationalize respondents' bonds with adults or teachers at their school (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree). Looking at the final response category of "strongly agree," less than half of students believe that there was an adult at school that: really cares about them (35.4%); notices when they are not there (30.6%); listens to them (32.7%); wants them to do their best (32.0%); and believes they'll be a success (42.1%). These measures were used in a scale, bonds with adults at school, with a Cronbach's alpha of 0.872. Strong bonds with teachers have been used as a measure of school climate in the literature (Stewart, 2003; Payne, 2008). It has been argued that bonds with teachers can serve as a measure to understand students' levels of connectedness and belonging to a school (Cohen et al., 2009; Skiba et al., 2004; Zullig et al., 2010).

### *Control Variables*

#### *School Sector*

A main goal of this study is to observe differences and similarities both within and among school sectors. The variable, school sector, identified the type of school a student attends (0 = public, 1 = private). The majority of respondents in this study attended a public school (92.1%). Although 7.9% is a small percentage of the sample, it includes 461 cases, which will allow for comparative analyses. Additionally, it corresponds with the national average of students enrolled in private schools, which was about 10% in 2011 (Broughman and Swaim, 2013). Research suggests that bullying may be less frequent in private schools (LeBlanc and Slaughter, 2012) and that private school students may also report lower levels of fear and higher levels of

bonding (Phaneuf, 2006). Research studies also suggest that school climate may be differentially experienced by students based upon their school sector with private school students often reporting a more positive school climate (Bryk et al., 1993; Fan et al., 2011; Honingh and Oort, 2009; Lubienski et al., 2008; Sikkink, 2012).

### *School Security*

Measures of school security have recently been highlighted in the literature. Research concerning security measures in schools was generally mixed. For instance, one study underlined how metal detectors, locked doors, and supervised hallways can invoke student fear (Schreck and Miller, 2003). However, this same study noted how security guards, visitor sign-ins and locker checks had no significant impact on fear of crime among students. Bachman, Randolph, and Brown (2011) uncovered that security guards and metal detectors increased fear of crime for all students, but when the sample was disaggregated by race, the security guard finding only held true for white students. Perumean-Chaney and Sutton (2013) utilized the National Longitudinal Study of Adolescent Health and found that only “visible” security measures increased fear of crime. These “visible” measures included: presence of a security office, metal detector, security cameras, and locked doors. However, non-visible measures, such as hall passes, visitor sign-in, restricted student movement, and the requirement of a dress code did not impact fear of crime. The relationship between security measures and bullying was also mixed. Some findings suggest that security measures could actually increase bullying (Richard et al., 2012), while others find that the presence of adults monitoring the hallways reduced the odds of being bullied by as much as 26% (Blosnich and Bossarte, 2011). Extending bullying behaviors to the wider measure of school violence, research has found that the

presence of security guards, metal detectors, and locked doors were all associated with greater levels of school violence (Mayer and Leone, 1999). It's also been found that students and teachers who perceive a disorderly school also report a negative school climate (Fan et al., 2011; Koth et al., 2008). Furthermore, the presence of school security and disciplinary measures could affect bullying and peer victimization indirectly. That is school security measures and harsh disciplinary actions could increase bullying by first impacting the school climate. For instance, in evaluating the role of security resource officers in schools Kupchik (2010) argues that SROs affect the overall school climate:

Having an officer can escalate disciplinary situations; increase the likelihood that students are arrested at school; redefine situations as criminal justice problems rather than social, psychological, or academic problems; introduce a criminal justice orientation to how administrators prevent and respond to problems; and socialize students to expect a police presence in their lives (p. 115).

To measure school security, this study used six items from the SCS. Respondents were asked whether their school takes certain measures to make sure students are safe (0 = no, 1 = yes). Students were asked specifically if their schools have: security guards (68.8%); staff/adults supervising the hallways (88.6%); metal detectors (10.6%); locked entrances/exits during the day (64.1%); a requirement to wear identification badges (IDs) (24.1%); and security cameras (76.2%). Although the SCS also asks students about other security measures such as visitor sign in, locker checks, and a school code of conduct, these measures had little variation—meaning that the majority of school possessed these measures—and as such were not included.

### *School Disorder*

A multitude of studies that have examined the correlates and predictors of school climate, bullying, and fear have uncovered the role of school disorder. Students who had multiple behavioral problems at school (i.e. aggression, truancy, acting out) were not only more likely to maintain a negative perception of school climate (Fan et al., 2011; Koth et al., 2008), but their peers also reported greater school disorder, lack of discipline, and feeling unsafe (Koth et al., 2008). Misbehavior and fighting on school grounds has been associated with an increase in bullying rates (Pequero and Williams, 2011). Additionally, gangs and pervasive drug use in a school have been shown to predict victimization (Wynne and Joo, 2011). Gang presence in a school can also increase the risk of being bullied (Forber-Pratt, Aragon, and Espelage, 2014). Truancy has also been found to significantly related to both bullying (Kaiser and Rasminsky, 2003) and fear (Brown and Benedict, 2004; Khoury-Kassabri, 2011). Fear of crime in a school can be increased by the presence of weapons, gangs, and drug and alcohol availability (Alvarez and Bachman, 1997; Brown and Benedict, 2004; Perumean-Chaney and Sutton, 2013; Shreck and Miller, 2003; Wilcox et al., 2005).

Several measures were used to operationalize school disorder: presence of gangs in school, whether students participate in physical fights on school grounds, drug availability, truancy, and if students brought weapons to the school (0 = no, 1 = yes). Only 4.5% of respondents reported having been in a fight on school grounds; however, almost one in five students (17.0%) reported the presence of gangs in their schools. The SCS asks respondents whether the following drugs are available in their school: alcoholic beverages; marijuana; crack; other forms of cocaine; uppers such as ecstasy, crystal meth or other illegal stimulants; downers such as GHB or sleeping

pills; LSD or acid; PCP or angel dust; heroin or smack; prescription drugs illegally obtained without a prescription, such as Oxycontin, Vicodin, or Xanax; and other illegal drugs. These variables were scaled together and averaged so they are binary (0 = no, 1 = yes). The drug availability scale has a Cronbach's alpha of 0.875. In regards to truancy, 6.1% of the sample reported skipping classes in the past four weeks prior to the survey's administration. The final measure of school disorder highlighted that 2.5% of students brought a gun, knife, or some other weapon to school in the past year.

#### *Demographic and Control Measures*

To control for the effects of other factors in this study, the following variables will also be included in the analyses: sex (0 = male, 1 = female) and students' achievement (0 = F's, 1 = D's, 2 = C's, 3 = B's, 4 = A's). Both sex and academic achievement have been found to be significantly related to bullying (Bradshaw et al., 2013; Levy et al., 2012; Peguero and Williams, 2011; Smith and Gross, 2006; Unnever and Cornell, 2003b) fear of crime at school (Akiba, 2010; Wilcox et al., 2005), and school climate (Fan et al., 2011; Koth et al., 2008). Age has also been shown to be a predictor of fear with younger students generally more fearful (Welsh, 2001). Research examining the relationship between bullying and age shows that bullying tends to increase during childhood and peak during adolescence and then decrease (Guerra et al., 2011; Nansel et al., 2001), although this relationship may be moderated by sex (Russell, Kraus, and Ceccherini, 2010). Due to this curvilinear relationship, the age variable has been dichotomized to represent younger and older students (0 = 12-14 years old; 1 = 15-18 years old). The relationship between race and ethnicity and bullying and fear remains complicated; however, research has found that



race and ethnicity may have an impact on both bullying (Peguero and Williams, 2011) and fear (Bachman, Randolph, and Brown, 2011) and should be included in any such analyses. For race and ethnicity, a series of dichotomous variables including non-Hispanic blacks, non-Hispanic others, and Hispanics of any race will be used with non-Hispanic white (coded as 1) left out to serve as the comparison group (2 = non-Hispanic black, 3 = non-Hispanic other, 4 = Hispanic of any race).

Additionally, a proxy variable to measure socioeconomic status was investigated. This variable was added into the analysis as research suggests that the presence of a greater proportion of advantaged students in private schools explains the positive effects of the school climate (Lubienski et al., 2008). Whereas the SCS does not ask respondents about household income, the larger National Crime Victimization Study (NCVS) interviews the head of household and inquires as to his/her income status and educational attainment. Educational attainment has been found to significantly predict aspects of school climate (Fan et al., 2011). Lower levels of parental education and income have also been associated with greater levels of fear among students (Akiba, 2010; Alvarez and Bachman, 1997). Since the income variable possesses a high degree of missing data, this research will use the educational attainment—highest level of education completed—measure. Using the educational attainment variable will highlight the level of education experienced by the student's parents/guardians (0 = high school diploma or less; 1 = some college or more). Six out of ten household heads (59.4%) reported finishing some college or more.

Fear of crime research consistently uncovers that previous victimization predicts fear of crime among adolescents (Alvarez and Bachman, 1994; Bachman, Randolph, and Brown, 2011; Wilcox et al., 2005). This study controls for previous victimization using two variables that ask whether a student was the victim of a crime

anywhere, not just on school property. The first is a measure of previous victimization of violent crimes, including actual attacks or threats of simple assault, aggravated assault, and rape (0 = no; 1 = yes). The second variable refers to being the victim of larceny or theft (0 = no; 1 = yes). Slightly more than 4% of the sample reports being the victim of theft or larceny while 1% report being the victim of a violent crime. Additionally, bullying has been found to increase fear of crime (Bachman, Randolph, and Brown, 2011; Berkowitz and Benbenishty, 2012; Forber-Pratt et al., 2014; Glew et al., 2008; Jeffrey et al., 2001) and will also be included in the fear analyses as a control variable. Refer back to Table 4.2 for a complete descriptives breakdown of each variable of interest for this study and Table 4.7 for a distribution of all independent and dependent measures used in this study.

### ***Analytical Strategy***

#### *Weighting the School Crime Supplement*

As a supplemental survey to the National Crime Victimization Survey (NCVS), the School Crime Supplement (SCS) is also the result of a stratified, multi-stage cluster sample design. Due to this sample design—and the fact that it is not a true random sample—it is necessary to take into consideration the standard errors when analyzing data from the SCS. If analyses fail to take the clustering design effect of the SCS into consideration, it could result in diminished standard errors and erroneous significance values. To control for this design effect, the following analyses were conducted using STATA/SE Version 11.2. STATA is a unique statistical program that allows for probability weights, provided in the SCS, to be inserted into regression analyses. Probability weights are variables that define the probability that

the respondents of the SCS were selected into the survey sample from a certain population. Therefore, the following multiple and logistic regressions were conducted in STATA and are considered weighted. As such, the effect of the multi-stage clustering design should not affect either the standard errors or the significance values reported. Additionally, each scale created was examined for multicollinearity using tolerance values and Variance Influence Factors (VIF). For each scale, no tolerance values were smaller than 0.1 and no VIFs were larger than 4; therefore, multicollinearity does not present an issue in further analyses (Stevens, 2009).

The quantitative analysis using the SCS will focus on the relationship between school sector, school climate, school security, school disorder, and each of the dependent variables, bullying and fear. Using STATA/SE Version 11.2, analyses will be conducted in two stages. First, regression models will be used to determine the overall effects of the independent variables on the dependent constructs (Ordinary Least Squares [OLS] Regression for the bullying variables and Logistic Regression for the fear variables). Second, school-specific models will be used to determine whether the independent and control variables differentially affect the dependent variables across school setting. By using the statistical test for the equality of regression coefficients, the analysis will highlight if the relationship between the independent variables and bullying differs by group (Paternoster, Brame, Mazerolle, and Piquero, 1998).

**Table 4.7: Distribution of Dependent and Independent Variables**

<b>Variable</b>	<b><i>n</i></b>	<b>Percentage</b>	<b>Response</b>
<b>In-Person Bullying</b>	1541	28.2	Yes
Pushed, shoved, spit on	462	8.0	Yes
Tried to make you do things you didn't want to	189	3.3	Yes
Destroyed property on purpose	161	2.8	Yes
Made fun of, called names, insulted	1034	17.9	Yes
Spread rumors about you	1078	18.7	Yes
Threatened with harm	300	5.2	Yes
Excluded on purpose	316	5.5	Yes
<b>Fear</b>			
Fear at school	1067	18.2	Yes
Fear going to/from school	727	12.4	Yes
<b>Classroom Environment</b>			
How often distracted by other students misbehaving	930	16.0	Never
How often teachers punish students during class	603	10.4	Never
<b>Teachers' Treatment of Students</b>			
Teachers treat students with respect	1844	31.8	Strongly Agree
Teachers care about students	1954	33.7	Strongly Agree
Teachers do/say things to make students feel bad	157	2.7	Strongly Agree
<b>Rule Fairness and Clarity</b>			
Everyone knows what school rules are	2040	35.2	Strongly Agree
Rules are fair	1517	26.2	Strongly Agree
Punishment is same for everyone	1891	32.7	Strongly Agree
Rules are strictly enforced	1449	25.1	Strongly Agree
Students know punishments for breaking rules	1453	25.2	Strongly Agree
<b>Bonds with Adults at School</b>			
Teacher/adult really cares about you	2041	35.4	Strongly Agree
Teacher/adult notices when you're not there	1759	30.1	Strongly Agree
Teacher/adult listens to you	1894	32.7	Strongly Agree
Teacher/adult wants you to do your best	1855	32.0	Strongly Agree
Teacher/adult believes you'll be a success	2437	42.1	Strongly Agree

## *Qualitative Data*

### *Mixed Methods*

The use of a mixed methodological approach in this study allows for a more nuanced understanding of students' perceptions of the factors related to both bullying and feelings of safety in the school setting. The use of quantitative methods in conjunction with qualitative will also serve to eliminate the weaknesses of only one individual approach. For example, the use of a quantitative dataset allows for generalizability while qualitative open-ended questions allow for the respondents to report their own feelings using their own words. In addition, the qualitative component will hopefully illuminate areas of the research that the SCS does not cover. The SCS is a concise survey that is limited to a certain number of questions in specific areas of interest. The use of open-ended questions will allow this research to further investigate how students themselves feel about issues of fear and bullying by analyzing their own words, thoughts, and feelings. The use of qualitative data and analyses are exploratory. This study utilizes an embedded design model, such that the quantitative data serves as the primary method, but the qualitative data allows for new and different ideas to emerge (Creswell and Plano Clark, 2011). Exploratory qualitative analyses will investigate students' perceptions of how middle and high schools can reduce bullying and increase feelings of safety. The aim of the data is to allow the students to speak about school climate aspects on their own. Open-ended questions allow students' perceptions of school climate to be revealed in their own terminology without being prompted from a previously existing survey design. Using an exploratory approach is useful in this design, because it allows students to clarify their interpretation of school climate, rather than defining such concepts for them. By

using mixed methods in this study, the strengths of both tactics are on display: the exploratory nature of this qualitative design allows for additional insights into factors related to both bullying and fear while the quantitative analyses allow for greater representation of the student population. In this way, the use of both methods enhances the validity findings.

### ***Sample***

This study utilized data that was collected explicitly for this research<sup>5</sup>. The surveys were designed to illicit information from participants regarding their thoughts and feelings regarding bullying and fear in middle schools and high schools. Typed surveys were distributed to an availability sample of voluntary participants present on a campus at a northeastern university. Specifically, in person solicitations of students to fill out the short survey were conducted on February 18-19, 2014 on the campus. Students approached were told this was a short survey of their attitudes that would take about 5 minutes to complete. Approximately 90% of students agreed to take the survey after which they signed a voluntary consent form and then completed the survey on their own. Students were given as much time as necessary to complete the survey. A total of 600 students completed the survey. Table 4.8 displays a breakdown of sample characteristics. The sample consisted of 50.5% males (n = 303), 78.1% (n = 467) identified as white/Caucasian, and 34.5% (n = 207) reported a Democratic political affiliation. Additionally, the participants were asked to rate their level of religiosity/spirituality on a Likert scale from 1 (Not at all Religious/Spiritual) to 10

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<sup>5</sup>Collection and Analysis of Qualitative Data was approved by the University of Delaware's Institutional Review Board.

(Extremely Religious/Spiritual). Over 60% of the sample (n = 362) identified as religious/spiritual (responded 6-10).

**Table 4.8: Sample Characteristics of Qualitative Data**

<b>Variable</b>	<b>n</b>	<b>Percentage</b>
<b>Sex</b>		
Male	303	50.5%
Female	297	49.5%
<b>Race/Ethnicity</b>		
White/Caucasian	467	78.1%
African-American	51	8.5%
Asian-American	30	5.0%
Hispanic Origin	21	3.5%
Mixed Race/Ethnicity	19	3.2%
Other	10	1.7%
<b>Political Affiliation</b>		
Democratic	207	34.5%
Republican	183	30.5%
Independent	166	27.7%
Other	38	6.3%
<b>Religiosity/Spirituality</b>		
Not at all Religious/Spiritual	40	6.7%
2	33	5.5%
3	49	8.2%
4	63	10.5%
5	53	8.9%
6	86	14.3%
7	121	20.2%
8	107	17.8%
9	25	4.2%
Extremely Religious/Spiritual	23	3.8%

### ***Measures***

Students were asked two open-ended questions, including: “I would like you to tell me, in your own words, what you believe is the most important thing that middle and high schools could do to prevent bullying,” and “Next, what do you think, in your own words, would be the most important thing middle and high schools could do to make students feel safe from harm.” Over 98% of the sample (n = 589) responded to the first question regarding bullying, and 94% (n = 564) answered the question posed regarding safety at school.

### ***Coding Procedure***

Responses were transcribed verbatim and entered into the qualitative software program NVivo 10. The use of this program allows for coding and analysis of the data in addition to keeping a record of these actions and emerging themes. Coding of the data occurred in multiple stages in order to fulfill the basic steps of a thematic analysis. A thematic analysis is the process through which theoretical ideas and themes are identified within the qualitative data (King and Horrocks, 2010). The first coding step conducted was descriptive coding. Descriptive coding sticks extremely close to the data, often going line-by-line. During this stage, notes, comments, and highlighting of key words and phrases occurs (King and Horrocks, 2010). Often, this process allows for preliminary codes to emerge. The second step, interpretative coding, involves the subcoding and clustering of descriptive codes together. For instance, the use of “security cameras” and “metal detectors” would be identified as subcodes and clustered together under an interpretative code of “security measures.” The final step involves defining overarching themes. During this stage, overall themes



rooted in the interpretative coding are identified (King and Horrocks, 2010). The qualitative narratives from this design will provide context and meaning to the findings from the quantitative statistical analyses described above.

### ***Summary***

Chapter four presented the mixed-methods that will be utilized to answer the research questions set forth in this study. The School Crime Supplement from 2011 will be used to assess the quantitative measures of school climate, school sector, bullying, and fear. Additionally, this chapter highlighted the operationalization of these various concepts and their support in the literature. The second half of this chapter was devoted to qualitative methods. Open-ended responses were used to investigate how schools can prevent bullying and fear. Thematic analysis will be used to examine the data collected. Chapters five and six present the quantitative analyses and chapters seven and eight describe the qualitative findings.

## Chapter 5

### **BULLYING AND SCHOOL CLIMATE: THE ROLE OF SCHOOL SECTOR**

This chapter utilizes the 2011 School Crime Supplement to highlight public and private school students' experiences with in-person (physical and verbal) bullying and school climate. To that end, this chapter is split into two sections: bivariate findings and multivariate findings. The bivariate findings investigate the relationship each sample of students (public or private) has to the dependent variable, both as a scale and among its individual components. The multivariate findings are used to regress the dependent variables onto a multitude of independent variables. Additionally, this study aims to understand the unique experiences of students based upon their school sector. Therefore, an additional statistical test is conducted following the regression analyses. In order to examine whether there are differences between public and private school students' experiences with bullying, a test for the equality of regression coefficients is conducted (Paternoster et al., 1998).

#### ***Bivariate Findings***

The results of the chi-square analyses are presented in Table 5.1. This analysis shows several significant variables that differ among public and private school students. For instance, private school students (22%) are less likely to report being the victim of physical and/or verbal bullying than public school students (29%). When this scale of bullying is broken down into its individual variables, we continue to see this pattern. For instance, private school students are less likely to report being

pushed, shoved, or spit on (5% compared to 8%). Private school students are also less likely to be the victims of verbal bullying. These students report lower rates of being made fun of or insulted (14% compared to 18%); having rumors spread about them (13% compared to 19%); and being threatened with harm (2% compared to 6%).

**Table 5.1: Chi-Square Analyses of Experiences of Bullying among School Sector**

Variable	Public Students		Private Students		$\chi^2$	N
	n	%	n	%		
Physical and Verbal Bullying	1523	28.7	101	22.1	11.63	5768
Pushed/Shoved/Spit on**	441	8.3	21	4.6	7.70	5786
Coercion – Forced to Do Things	176	3.3	13	2.9	.272	5784
Destroyed your Property on Purpose	152	2.9	9	2.0	1.20	5781
Made Fun of You/Called Names/Insulted*	968	18.2	66	14.4	3.95	5789
Spread Rumors about You**	1018	19.1	60	13.2	9.84	5780
Threatened with Harm***	293	5.5	7	1.5	13.40	5788
Excluded on Purpose	289	5.4	27	5.9	.199	5782

Note: \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$ .

### ***Multivariate Findings***

#### *Physical and Verbal Bullying*

The results of three multiple regression models are presented in this section. Table 5.2 shows the overall model of physical and verbal bullying as predicted by school climate, school security, and school disorder. Tables 5.3 and 5.4 show the same regressions models, but are predictive for public school students and private school students, respectively. These results indicate that the first hypothesis—a negative school climate would significantly predict higher levels of bullying victimization—is supported. After controlling for race, student’s grades, sex, and

parental education level, the results highlight the importance of school climate and school disorder variables in relation to bullying.

Both the overall model and the regression model of solely public school students highlight many of the same significant predictors. In each of these models, students' perceptions of a negative school climate predicted a students' bullying victimization. For instance, students who report being distracted in class or believed teachers are constantly punishing students during class (a negative classroom environment) are more likely to also report being the victim of bullying. This finding suggests that teachers who are unable to maintain order in the classroom creates a negative school climate (Mitchell and Bradshaw, 2013) that could in turn increase bullying rates. If punishments are not taken seriously among students, then such victimization acts could occur. Similarly, students who report that teachers do not treat them with respect or do not care about the student body (negative treatment by teachers), also are more likely to report bullying victimization. Physical and verbal bullying victimization is also predicted by a lack of rule clarity and fairness. Students who believe that school rules are not fair and are not strictly enforced also report being a victim of bullying. Finally, those students who report having strong bonds with a teacher are also more likely to report being physically or verbally bullied.

School climate variables are not the sole predictors of bullying victimization. Students whose schools employ security guards, metal detectors, and security cameras also had an effect on bullying victimization. The presence of both security guards and metal detectors actually reduce bullying victimization. In contrast, students whose schools have security cameras are more likely to report being bullied.

**Table 5.2: Multiple Regression of School Climate Predicting In-Person Bullying –Total Sample**

<b>Variable</b>	<b><i>b</i></b>	<b>Robust S.E.</b>	<b><math>\beta</math></b>
Positive Classroom Environment	(-.039***)	.003	-.162
Positive Teachers' Treatment of Students	-.023***	.006	-.067
Rule Clarity/Fairness	-.043***	.007	-.114
Strong and Positive Bonds with Teachers	.035***	.006	.092
Security Guards	(-.014**)	.005	-.037
Staff Monitors	.004	.007	.007
Metal Detectors	-.025***	.006	-.046
Locked Doors	-.002	.005	-.005
IDs	-.002	.005	-.006
Security Cameras	.014**	.005	.035
Drug Availability	(.098***)	.015	.111
Fights	.163***	.018	.200
Gangs	.022**	.007	.049
Truancy	.019	.011	.028
Weapon	(.070***)	.019	.064
Private School Sector	-.006	.007	-.008
Female	.021***	.004	.060
Race (Contrast = White Non-Hispanic)			
Black Non-Hispanic	-.024***	.007	-.049
Other Non-Hispanic	-.021**	.007	-.031
Hispanic of Any Race	-.028***	.005	-.066
Age – 15-18 years old	-.038***	.005	.111
Grades – Greater Academic Achievement	-.016***	.003	-.073
Parents' Education – Some College or More	.008	.005	.022
Constant	.282***	.024	--
R-Squared	.199		
F = 36.23***			

Note: ( ) Test for equality of regression coefficients is significant. \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$ . S.E. = standard errors for *b* coefficients. N=5493.

**Table 5.3: Multiple Regression of School Climate  
Predicting In-Person Bullying among Public School Students**

<b>Variable</b>	<b><i>b</i></b>	<b>Robust S.E.</b>	<b><math>\beta</math></b>
Positive Classroom Environment	(-.039***)	.003	-.160
Positive Teachers' Treatment of Students	-.023***	.007	-.065
Rule Clarity/Fairness	-.044***	.007	-.115
Strong and Positive Bonds with Teachers	.036***	.007	.093
Security Guards	(-.019***)	.006	-.048
Staff Monitors	.005	.008	.009
Metal Detectors	-.024***	.006	-.044
Locked Doors	-.002	.005	.005
IDs	-.001	.005	-.002
Security Cameras	.015**	.005	.034
Drug Availability	(.103***)	.016	.117
Fights	.161***	.018	.199
Gangs	.023***	.007	.053
Truancy	.018	.012	.027
Weapon	(.072***)	.020	.067
Female	.021***	.005	.059
Race (Contrast = White Non-Hispanic)			
Black Non-Hispanic	-.027***	.008	-.056
Other Non-Hispanic	-.021**	.007	-.032
Hispanic of Any Race	-.029***	.006	-.068
Age – 15-18 years old	-.039***	.005	.110
Grades – Greater Academic Achievement	-.016***	.003	-.071
Parents' Education – Some College or More	.007	.005	.021
Constant	.283***	.025	--
R-Squared	.200		
F = 35.67***			

Note: () Test for equality of regression coefficients is significant. \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$ . S.E. = standard errors for *b* coefficients. N=5062.

Finally, a variety of school disorder variables also predict physical and verbal bullying victimization. Students who attend schools where drugs are available or gang members attend are more likely to report bullying. Those students who are involved in physical fights throughout the school year or brought a weapon to school are also more likely to report being bullied. Both models also show significance among the control variables. Bullying is greater among females, middle school students, those with lower grades, and those with minority status (compared to white non-Hispanics). According to the standardized regression coefficients, in each of these models—overall and public school students—the strongest predictors of physical and verbal bullying are the classroom environment scale and whether students are involved in physical fights.

Whereas both the overall and public school model contain the same significant predictors of physical and verbal bullying, the private school model highlights fewer significant predictors. Table 5.4 displays these results. Unlike the previous models, rule clarity and bonds with teachers are not significant predictors of bullying among private school students. However, a negative classroom environment and poor treatment of students still predicts bullying victimization. In direct contrast to the finding of security guards and bullying above, the regression analysis of bullying and private school students shows that the presence of security guards actually increases the reporting of bullying. The relationship between security measures and victimization is mixed within the literature (Blosnich and Bossarte, 2011; Mayer and Leone, 1999). The fact that both public and private school students report a significant relationship between bullying and security guards, but in opposite directions, speaks to the notion that other factors may be mediating this relationship. Public schools may have normalized the presence of a security guard, so much so that

it makes them feel safer, which could reduce bullying victimization. Private school students may view the presence of guards as a sign that the school is unsafe, which could therefore result in increased disorder amongst the student body. Additionally, while the negative relationship of metal detectors and bullying persists in this model, it is no longer significant at the .05 level. Furthermore, some of the school disorder variables that are significant for the overall model and among public school students are not significant among private school students. These predictors are: gangs, weapon, and truancy. However, whether a student had been involved in a fight is still a salient predictor of bullying victimization. Like the previous two models, the strongest predictors of physical and verbal bullying are classroom environment and involvement in physical fights. Additionally, only one control variable is significant in this model: middle school students are more likely than older students to be bullied.

While it is useful to examine these multiple models of bullying victimization, the coefficients of the regression models cannot be directly compared. As such, it cannot be said that there are significant differences between public and private school students in regards to school climate and bullying victimization. In order to compare the two groups, it is necessary to perform a test for the equality of regression coefficients (Paternoster et al., 1998). This statistical equation computes a z score, which determines whether two groups are significantly different from one another based on the predictors in the regression model. According to this test, four predictors in the regression models are statistically different between public and private school students. Classroom environment, security guards, drug availability, and whether a student brought a weapon to school are different predictors based on school sector. Both drug availability and whether a student brought a weapon to school are only significant predictors for physical and verbal bullying in the public school model.



Additionally, while the presence of security guards is a significant predictor for both public and private school students, the direction of the relationship is not the same. For instance, for public school students, the presence of security guards decreases bullying, whereas among private school students, it increases bullying victimization. This finding could be the result of racial heterogeneity that exists in public schools. Literature suggests that security measures in schools have differential impacts on students based upon their race (Bachman, Randolph, and Brown, 2011). Since private schools are traditionally more homogenous in terms of their racial composition, it is therefore plausible that the implantation of security measures causes students to perceive the school environment to be more unsafe than it really is thus increasing self-protection measures (Anderson, 1999), which would express themselves as bullying behaviors. Based upon standardized regression coefficients, classroom environment is a stronger predictor of bullying among private school students than among public school students. This could be the result of private school teachers maintaining more control over the disciplining of their students (Alt and Peter, 2002). Private school students perceive school rules more clearly than their public school counterparts (Fan et al., 2011). It is therefore possible that private school students are well aware of the possible punishments for breaking school rules and are more accepting of teachers' discipline when it occurs. The results of the test for the equality of regression coefficients support the second hypothesis—students in private schools report lower levels of bullying victimization than public school students. It should also be noted that the relative lack of significant predictors observed among private school students in relation to public school students may be the result of a power element between the sample sizes present in the dataset. The number of private school students who participated in the SCS is much lower than public school students. This

stark difference in sample size could result in incorrectly failing to reject the null hypotheses regarding private school students.

**Table 5.4: Multiple Regression of School Climate Predicting In-Person Bullying among Private School Students**

Variable	<i>b</i>	Robust S.E.	$\beta$
Positive Classroom Environment	(-.039***)	.010	-.199
Positive Teachers' Treatment of Students	-.032*	.016	-.111
Rule Clarity/Fairness	-.024	.021	-.080
Strong and Positive Bonds with Teachers	.017	.019	.052
Security Guards	(.036*)	.016	.118
Staff Monitors	-.001	.014	-.002
Metal Detectors	-.051	.032	-.051
Locked Doors	.004	.014	.013
IDs	-.013	.019	-.033
Security Cameras	.011	.014	.039
Drug Availability	(-.051)	.054	-.047
Fights	.249***	.077	.256
Gangs	-.027	.077	-.026
Truancy	.034	.043	.049
Weapon	(-.033)	.027	-.020
Female	.019	.014	.068
Race (Contrast = White Non-Hispanic)			
Black Non-Hispanic	.024	.031	.058
Other Non-Hispanic	-.023	.017	-.034
Hispanic of Any Race	-.014	.016	-.035
Age – 15-18 years old	-.031*	.013	.109
Grades – Greater Academic Achievement	-.017	.012	-.086
Parents' Education – Some College or More	.012	.014	.037
Constant	.300***	.081	--
R-Squared	.216		
F = 3.26***			

Note: () Test for equality of regression coefficients is significant. \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$ . S.E. = standard errors for *b* coefficients. N=431.

## Chapter 6

### **FEAR AND SCHOOL CLIMATE: DO SCHOOLS MAKE STUDENTS MORE AFRAID?**

This chapter analyzes the SCS to investigate the relationship between school climate and fear at school and fear traveling to and/or from school among public and private school students. This chapter is split into two sections: bivariate and multivariate findings. The bivariate findings highlight the relationship among school sector and two dependent variables that measure fear. The multivariate findings outline the results of several logistic regressions examining the relationship between school climate, fear, and school sector.

#### ***Bivariate Findings***

Table 6.1 presents the results of the chi-square analyses. The results indicate that both measures of fear are significantly different among public and private school students. Public school students (19%) are nearly twice as likely as private school students (11%) to report being afraid that someone will attack or hurt them at school. Public school students (13%) are also more afraid that someone will harm them while traveling to/from school than private school students (8%).

**Table 6.1: Chi-Square Analyses of Experiences of Fear among School Sector**

Variable	Public Students		Private Students		$\chi^2$	N
	n	%	n	%		
Afraid at School***	1018	18.9	49	10.6	19.42	5851
Afraid Traveling To/From School**	689	12.8	38	8.2	8.04	5851

Note: \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$ .

### ***Multivariate Findings***

#### *Fear at School*

The results of the logistic regression examining the relationship between school climate and fear at school are displayed in Table 6.2. Hypothesis three is not supported—school climate is not a significant predictor of experiencing fear of being harmed at school. Hypothesis six, which suggested that students who have been bullied report greater levels of fear, was supported. This finding is extremely salient, increasing the odds of being afraid at school by 1,924%. Additionally, other variables in the models are significant. Students are more likely to report fear when staff and teachers do not monitor the hallways. Gangs prove to be the only school disorder variable significant in the analysis. Students who report gangs in their school are more likely to experience fear on school grounds. School sector is a significant predictor in this model. Students who attend private schools possess 42.9% lesser odds of being afraid while at school. This result supports the fifth hypothesis—private school students report lower levels of fear at school. Two control variables are also significant. The first suggests that younger students are more likely to report fear at

school and those students who had a previous violent victimization are also more likely to be afraid at school.

While it is pertinent to examine the relationship between fear and school climate among the total sample, it is also helpful to conduct further analyses to determine which factors may be significant among the subpopulations. Table 6.3 displays the results of the logistic regression predicting fear at school among public school students. Hypothesis three is supported: a negative school climate predicts a greater likelihood of reporting fear at school. Specifically, students who possess negative bonds with teachers have 22.7% greater odds of also being afraid. Hypothesis six is affirmed as well: Public students who are bullied also report greater odds of being afraid at school, by 1,812%. Additionally, two school disorder variables are significant in the model. Public school students who report having adult monitors on school grounds are less likely to report being fearful. However, the presence of a gang in the school increases the chances of reporting fear. Three control variables are significant predictors of fear among public school students. Students with higher grades and older students are less likely to report fear at school. Public school students with a previous violent victimization have 128% greater odds of being afraid at school.

**Table 6.2: Logistic Regression of School Climate  
Predicting Fear at School – Total Sample**

<b>Predictor</b>	<b><math>\beta</math></b>	<b>Robust S.E.</b>	<b>Exp(B)/Odds Ratio</b>
Positive Classroom Environment	-.091	.057	.913
Positive Teachers' Treatment of Students	-.181	.097	.835
Rule Clarity/Fairness	-.057	.105	.945
Strong and Positive Bonds with Teachers	-.193	.103	.824
Security Guards	-.011	.096	.989
Staff Monitors	-.418***	.121	.658
Metal Detectors	.230	.129	1.26
Locked Doors	-.073	.083	.930
IDs	.156	.094	1.17
Security Cameras	-.174	.096	.840
Drug Availability	.298	.210	1.35
Fights	-.206	.164	.814
Gangs	.414***	.104	1.51
Truancy	-.079	.160	.924
Weapon	-.016	.220	.984
In-Person Bullying	3.01***	.211	20.24
Private School Sector	-.356*	.185	.700
Female	.052	.080	1.05
Race (Contrast = White Non-Hispanic)			
Black Non-Hispanic	-.001	.132	.999
Other Non-Hispanic	.287	.150	1.33
Hispanic of Any Race	.132	.101	1.14
Age – 15-18 years old	-.183*	.086	.833
Grades – Greater Academic Achievement	-.181	.049	.834
Parents' Education – Some College or More	-.119	.082	.887
Previous Victimization – Violent Incidents	.811**	.320	2.25
Previous Victimization – Property Incidents	.078	.176	1.08
Constant	.697	.405	--
Pseudo R-Squared	0.101		
Wald $\chi^2 = 455.96$ ***			

Note: \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$ . S.E. = standard errors for  $\beta$  coefficients. N=5488.

**Table 6.3: Logistic Regression of School Climate  
Predicting Fear at School among Public School Students**

Predictor	$\beta$	Robust S.E.	Exp(B)/Odds Ratio
Positive Classroom Environment	-.099	.059	.906
Positive Teachers' Treatment of Students	-.183	.100	.832
Rule Clarity/Fairness	-.072	.108	.931
Strong and Positive Bonds with Teachers	-.204*	.105	.815
Security Guards	-.067	.097	.935
Staff Monitors	-.482***	.125	.617
Metal Detectors	.244	.130	1.28
Locked Doors	-.066	.086	.936
IDs	.153	.096	1.16
Security Cameras	-.150	.101	.861
Drug Availability	.361	.212	1.44
Fights	-.165	.167	.848
Gangs	.408***	.105	1.50
Truancy	-.051	.161	.950
Weapon	-.020	.223	.981
In-Person Bullying	2.95***	.216	19.12
Female	.070	.082	1.07
Race (Contrast = White Non-Hispanic)			
Black Non-Hispanic	-.024	.137	.976
Other Non-Hispanic	.255	.154	1.29
Hispanic of Any Race	.147	.103	1.16
Age – 15-18 years old	-.183*	.088	.833
Grades – Greater Academic Achievement	-.166**	.050	.847
Parents' Education – Some College or More	-.110	.084	.896
Previous Victimization – Violent Incidents	.825**	.322	2.28
Previous Victimization – Property Incidents	.129	.178	1.14
Constant	.817*	.423	--
Pseudo R-Squared	.100		
Wald $\chi^2 = 423.60$ ***			

Note: \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$ . S.E. = standard errors for  $\beta$  coefficients. N=5057.

Table 6.4 displays the results of the logistic regression predicting fear at school among private school students. Private school students whose schools use security guards are more likely to be afraid. These students report increased odds of 119%. This finding was not significant in either the overall model or the public school model. It is plausible that the presence of security guards increases the notion that the school environment is unsafe, which could increase levels of fear. Similar to the overall and public school models, private school students who report bullying victimization also have 4,887% greater odds of experiencing fear at school. Hypothesis six holds true across the entire sample, among public school students and among private school students. However, these odds are greatest amongst private school students. Furthermore, private school students who report the presence of gangs in their schools possess 1,584% greater odds of experiencing fear. While this finding is also seen among public school students, the odds ratio suggests the effects of gangs are much greater upon private school students. Additionally, only one control variable is significant: private school students with greater academic achievement are less likely to experience fear.



**Table 6.4: Logistic Regression of School Climate  
Predicting Fear at School among Private School Students<sup>6</sup>**

Predictor	$\beta$	Robust S.E.	Exp(B)/Odds Ratio
Positive Classroom Environment	.007	.257	1.01
Positive Teachers' Treatment of Students	-.262	.456	.770
Rule Clarity/Fairness	.036	.451	1.04
Strong and Positive Bonds with Teachers	.018	.475	1.02
Security Guards	.783*	.389	2.19
Staff Monitors	.287	.408	1.33
Metal Detectors	-.195	1.35	.822
Locked Doors	-.296	.395	.743
IDs	.608	.469	1.84
Security Cameras	-.641	.366	.526
Drug Availability	-6.08	3.47	.002
Fights	-1.65	1.96	.192
Gangs	2.82*	1.47	16.84
Truancy	-.175	1.08	.840
In-Person Bullying	3.91***	1.13	49.87
Female	-.478	.368	.620
Race (Contrast = White Non-Hispanic)			
Black Non-Hispanic	.183	.580	1.20
Other Non-Hispanic	1.17	.663	3.22
Hispanic of Any Race	-.281	.609	.755
Age – 15-18 years old	-.198	.378	.821
Grades – Greater Academic Achievement	-.472*	.242	.624
Parents' Education – Some College or More	-.069	.425	.933
Constant	.099	1.55	--
Pseudo R-Squared	.168		
Wald $\chi^2 = 49.23***$			

Note: \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$ . S.E. = standard errors for  $\beta$  coefficients. N=415.

<sup>6</sup> Both variables measuring previous victimization as well as the measure of a weapon in school did not have enough variance amongst the private school sample to predict fear and were omitted from the analysis.

### *Bullying and Fear at School*

The above findings indicate that school climate factors are not adequate predictors of fear at school. However, bullying increases the odds of being afraid by over 1,000% in the above three analyses. This large odds ratio, combined with the lack of other significant results, indicates that bullying may be a mediating factor between the school climate and fear relationship. To investigate if this is the case, and then inform further research, additional analyses are conducted that removed the bullying variable from the logistic regressions. Tables 6.5, 6.6, and 6.7 present the results from these regressions. When the logistic regressions are analyzed without the bullying measure, hypothesis three, which suggests that students who perceive a negative school climate will experience increased levels of fear, is supported. Specifically, public school students who report a negative classroom environment, poor treatment by teachers, or unfair rules also report a greater likelihood of experiencing fear while at school. Additionally, although school sector is a significant measure in the overall model, the specific private school analyses reveal that school climate is still not a significant predictor of fear at school. In light of these analyses, bullying may serve as a mediating factor between school sector and fear such that being bullied affects one's perception of school climate, which could then result in increased levels of fear. This suggestion will be explored further as an area for future research in chapter 9.

**Table 6.5: Logistic Regression of School Climate Predicting Fear at School without Bullying Measure – Total Sample**

Predictor	$\beta$	Robust S.E.	Exp(B)/Odds Ratio
Positive Classroom Environment	-.232***	.055	.793
Positive Teachers' Treatment of Students	-.269**	.097	.764
Rule Clarity/Fairness	-.223*	.105	.800
Strong and Positive Bonds with Teachers	-.054	.102	.948
Security Guards	-.065	.094	.937
Staff Monitors	-.378**	.117	.685
Metal Detectors	.126	.126	1.13
Locked Doors	-.064	.081	.938
IDs	.130	.092	1.14
Security Cameras	-.105	.094	.900
Drug Availability	.569**	.197	1.77
Fights	.277	.162	1.32
Gangs	.472***	.100	1.60
Truancy	-.022	.154	.978
Weapon	.193	.205	1.21
Private School Sector	-.366*	.185	.693
Female	.112	.077	1.12
Race (Contrast = White Non-Hispanic)			
Black Non-Hispanic	-.092	.128	.912
Other Non-Hispanic	.188	.149	1.21
Hispanic of Any Race	.025	.098	1.03
Age – 15-18 years old	-.322***	.082	.725
Grades – Greater Academic Achievement	-.226***	.048	.797
Parents' Education – Some College or More	-.090	.080	.914
Previous Victimization – Violent Incidents	1.11***	.301	3.04
Previous Victimization – Property Incidents	.183	.168	1.20
Constant	1.82***	.394	--
Pseudo R-Squared	.058		
Wald $\chi^2 = 268.58***$			

Note: \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$ . S.E. = standard errors for  $\beta$  coefficients. N=5488.

**Table 6.6: Logistic Regression of School Climate Predicting Fear at School without Bullying Measure – Public School Students**

Predictor	$\beta$	Robust S.E.	Exp(B)/Odds Ratio
Positive Classroom Environment	-.235***	.057	.791
Positive Teachers' Treatment of Students	-.271**	.100	.762
Rule Clarity/Fairness	-.233*	.107	.792
Strong and Positive Bonds with Teachers	-.062	.105	.940
Security Guards	-.133	.095	.875
Staff Monitors	-.434***	.120	.646
Metal Detectors	.146	.127	1.16
Locked Doors	-.058	.084	.944
IDs	.128	.094	1.14
Security Cameras	-.079	.098	.924
Drug Availability	.636***	.200	1.89
Fights	.304	.165	1.36
Gangs	.470***	.101	1.60
Truancy	.002	.156	1.00
Weapon	.190	.208	1.21
Female	.127	.080	1.14
Race (Contrast = White Non-Hispanic)			
Black Non-Hispanic	-.125	.133	.883
Other Non-Hispanic	.159	.152	1.17
Hispanic of Any Race	.040	.100	1.04
Age – 15-18 years old	-.316***	.085	.729
Grades – Greater Academic Achievement	-.210***	.049	.811
Parents' Education – Some College or More	-.082	.082	.922
Previous Victimization – Violent Incidents	1.14***	.302	3.12
Previous Victimization – Property Incidents	.230	.171	1.26
Constant	1.89***	.410	--
Pseudo R-Squared	.058		
Wald $\chi^2 = 252.36$ ***			

Note: \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$ . S.E. = standard errors for  $\beta$  coefficients. N=5057.

**Table 6.7: Logistic Regression of School Climate Predicting Fear at School without Bullying Measure – Private School Students<sup>7</sup>**

Predictor	$\beta$	Robust S.E.	Exp(B)/Odds Ratio
Positive Classroom Environment	-.183	.255	
Positive Teachers' Treatment of Students	-.404	.436	
Rule Clarity/Fairness	.025	.469	
Strong and Positive Bonds with Teachers	.009	.461	
Security Guards	.974**	.385	
Staff Monitors	.343	.409	
Metal Detectors	-.402	1.20	
Locked Doors	-.126	.381	
IDs	.352	.441	
Security Cameras	-.604	.351	
Drug Availability	-5.71	3.07	
Fights	-.978	2.33	
Gangs	2.55	1.43	
Truancy	-.279	1.18	
Female	-.378	.356	
Race (Contrast = White Non-Hispanic)			
Black Non-Hispanic	.269	.514	
Other Non-Hispanic	1.04	.653	
Hispanic of Any Race	-.412	.611	
Age – 15-18 years old	-.406	.355	
Grades – Greater Academic Achievement	-.567*	.242	
Parents' Education – Some College or More	.021	.410	
Constant	1.56	1.51	--
Pseudo R-Squared	.124		
Wald $\chi^2 = 36.28^*$			

Note: \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$ . S.E. = standard errors for  $\beta$  coefficients. N=415.

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<sup>7</sup> Both variables measuring previous victimization as well as the measure of a weapon in school did not have enough variance amongst the private school sample to predict fear and were omitted from the analysis.

### *Fear Traveling to/From School*

Table 6.8 presents the results of the logistic regression examining the relationship between school climate and fear while traveling to/from school. Two school climate variables are significant in this model, supporting hypothesis four, which stated that a negative school climate would predict higher levels of fear outside of school. The likelihood of students reporting fear while traveling to/from school increase when teachers do not treat students with respect, do not care about their students and when students are not bonded to their teachers. Hypothesis six is supported here as well: students who experience verbal and physical bullying victimization also possess greater odds—548%—of reporting fear away from school grounds. Furthermore, two school security measures are also significant. The likelihood of fear increases when schools do not possess staff and teachers who monitor the hallways. Additionally, students who report the presence of metal detectors and those who skipped school are more likely to experience fear. Furthermore, five control variables are also significant. The likelihood of reporting fear while traveling to/from school is greater among black non-Hispanics, other non-Hispanics (both in comparison to white non-Hispanics), younger students (those in middle school), students with lower grades, and those whose parents have a high school diploma or less. School sector is not a significant predictor of fear while traveling to/from school and does not support hypothesis five.

**Table 6.8: Logistic Regression of School Climate  
Predicting Fear Traveling to/from School –Total Sample**

<b>Predictor</b>	<b><math>\beta</math></b>	<b>Robust S.E.</b>	<b>Exp(B)/Odds Ratio</b>
Positive Classroom Environment	-.059	.070	.943
Positive Teachers' Treatment of Students	-.261*	.112	.770
Rule Clarity/Fairness	.062	.127	1.06
Strong and Positive Bonds with Teachers	-.265*	.124	.767
Security Guards	.015	.113	1.02
Staff Monitors	-.344**	.138	.709
Metal Detectors	.390**	.138	1.48
Locked Doors	.111	.098	1.12
IDs	.200	.106	1.22
Security Cameras	-.164	.114	.848
Drug Availability	.326	.242	1.39
Fights	-.220	.191	.802
Gangs	.008	.124	1.01
Truancy	.341*	.161	1.41
Weapon	-.010	.244	1.01
In-Person Bullying	1.87***	.233	6.48
Private School Sector	-.180	.208	.834
Female	.054	.093	1.06
Race (Contrast = White Non-Hispanic)			
Black Non-Hispanic	.307*	.143	1.36
Other Non-Hispanic	.398*	.171	1.49
Hispanic of Any Race	.212	.118	1.24
Age – 15-18 years old	-.227*	.098	.797
Grades – Greater Academic Achievement	-.145**	.054	.865
Parents' Education – Some College or More	-.263**	.095	.769
Previous Victimization – Violent Incidents	-.140	.405	.869
Previous Victimization – Property Incidents	.179	.194	1.20
Constant	.090	.474	--
Pseudo R-Squared	.057		
Wald $\chi^2 = 218.73***$			

Note: \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$ . S.E. = standard errors for  $\beta$  coefficients. N=5500.

The results of the logistic regression exploring the relationship between school climate and fear traveling to/from school among public school students is presented in Table 6.9. Hypothesis four is supported in this model as well: students who perceive a negative school climate are more likely to report fear. Both negative treatment by a teacher and poor bonds with a teacher increase the likelihood of being afraid while en route to or away from school. In fact, public school students who are disrespected by their teachers or have teachers who do not care about their wellbeing have 28.9% greater odds of reporting fear. Similar to the previous models presented on fear, hypothesis six is maintained here as well. Public school students who are bullied have a greater likelihood of being afraid while traveling to school. Specifically, these students have increased odds of 546%. The model also reveals three school security measures that are related to fear while traveling. Both metal detectors and required ID badges in public schools increase the likelihood of reporting fear while traveling to/from school. The relationship between fear and required ID badges is only significant among public school students; it was not a significant predictor when analyzing the whole sample as seen in Table 6.4. The presence of staff monitoring hallways decreases the likelihood of experiencing fear. Public school students who skip class also have a greater likelihood of reporting fear. Additionally, race, age, academic achievement, and parental education effect students' experience of fear. Specifically both black non-Hispanics and other non-Hispanics are more likely to be afraid than whites. Younger students also have an increased likelihood of being afraid. Finally, students with grades in school and those whose parents completed more schooling are less likely to experience fear on the way to or from school.



**Table 6.9: Logistic Regression of School Climate  
Predicting Fear Traveling to/from School among Public School Students**

Predictor	$\beta$	Robust S.E.	Exp(B)/Odds Ratio
Positive Classroom Environment	-.086	.072	.918
Positive Teachers' Treatment of Students	-.254*	.117	.776
Rule Clarity/Fairness	.017	.131	1.02
Strong and Positive Bonds with Teachers	-.294*	.128	.745
Security Guards	-.026	.115	.974
Staff Monitors	-.364**	.144	.695
Metal Detectors	.373**	.141	1.45
Locked Doors	.083	.101	1.09
IDs	.251*	.109	1.29
Security Cameras	-.153	.119	.859
Drug Availability	.341	.246	1.40
Fights	-.238	.194	.789
Gangs	-.036	.126	.964
Truancy	.358*	.164	1.43
Weapon	.005	.248	1.00
In-Person Bullying	1.87***	.237	6.46
Female	.086	.096	1.09
Race (Contrast = White Non-Hispanic)			
Black Non-Hispanic	.312*	.150	1.37
Other Non-Hispanic	.374*	.175	1.45
Hispanic of Any Race	.191	.121	1.21
Age – 15-18 years old	-.223*	.101	.800
Grades – Greater Academic Achievement	-.151**	.056	.860
Parents' Education – Some College or More	-.252**	.097	.777
Previous Victimization – Violent Incidents	-.145	.410	.865
Previous Victimization – Property Incidents	.226	.197	1.25
Constant	.420	.494	--
Pseudo R-Squared	.059		
Wald $\chi^2 = 215.72***$			

Note: \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$ . S.E. = standard errors for  $\beta$  coefficients. N=5068.

Table 6.10 highlights the results of the logistic regression of school climate and fear among private school students. In this model, the fourth hypothesis is not supported: school climate is not a significant predictor of fear while traveling to/from school among private school students. This model underscores only one significant predictor of experiencing fear while en route to and from school among private school students. Students who report a gang presence in their school possess greater odds of reporting fear—6,122%. This significant finding is only present among this subpopulation. Gang presence in schools is not a predictor of fear while traveling among either the whole sample or amongst public school students. The relationship between gangs and fear is well documented (Forber-Pratt et al., 2013); however, this particular findings among private school students has not. This finding may perhaps be significant among private school students due to the relatively low number of students who report gang activities in their school. In contrast, public school students reported more gang activity. Their presence may normalize their behaviors. Since gangs are often absent in private schools, when they do appear, students may be more likely to fear the chaos and disorder they could cause. Additionally, several predictors that are significant among the entire model fall out of significance when examining private school students only. Hypothesis six is not supported among private school students: being bullied does not increase the likelihood of reporting fear while traveling to/from school. In conclusion, it is important to note that the sample size of private school students in comparison to public school students may result in a lack of significant predictors found in these models. The small number of private schools students who complete the SCS may not adequately represent the entire population of these students. This could then result in incorrectly accepting the null hypotheses.

**Table 6.10: Logistic Regression of School Climate  
Predicting Fear Traveling to/from School among Private School Students<sup>8</sup>**

Predictor	$\beta$	Robust S.E.	Exp(B)/Odds Ratio
Positive Classroom Environment	.120	.303	1.13
Positive Teachers' Treatment of Students	-.330	.480	.719
Rule Clarity/Fairness	.549	.553	1.73
Strong and Positive Bonds with Teachers	.116	.584	1.12
Security Guards	.666	.469	1.95
Staff Monitors	-.236	.424	.789
Metal Detectors	1.36	.936	3.88
Locked Doors	.488	.504	1.63
IDs	-.687	.581	.503
Security Cameras	-.433	.443	.648
Drug Availability	-2.70	2.09	.067
Fights	-3.28	1.83	.038
Gangs	4.13**	1.62	62.22
Truancy	.294	.787	1.34
In-Person Bullying	1.50	1.26	4.49
Female	-.744	.383	.475
Race (Contrast = White Non-Hispanic)			
Black Non-Hispanic	.165	.528	1.18
Other Non-Hispanic	.584	.717	1.79
Hispanic of Any Race	.576	.552	1.78
Age – 15-18 years old	-.285	.415	.752
Grades – Greater Academic Achievement	-.058	.254	.944
Parents' Education – Some College or More	-.139	.377	.870
Female	-.139	.433	.870
Constant	-3.56*	1.79	--
Pseudo R-Squared	.123		
Wald $\chi^2 = 36.55^*$			

Note: \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$ . S.E. = standard errors for  $\beta$  coefficients. N=416.

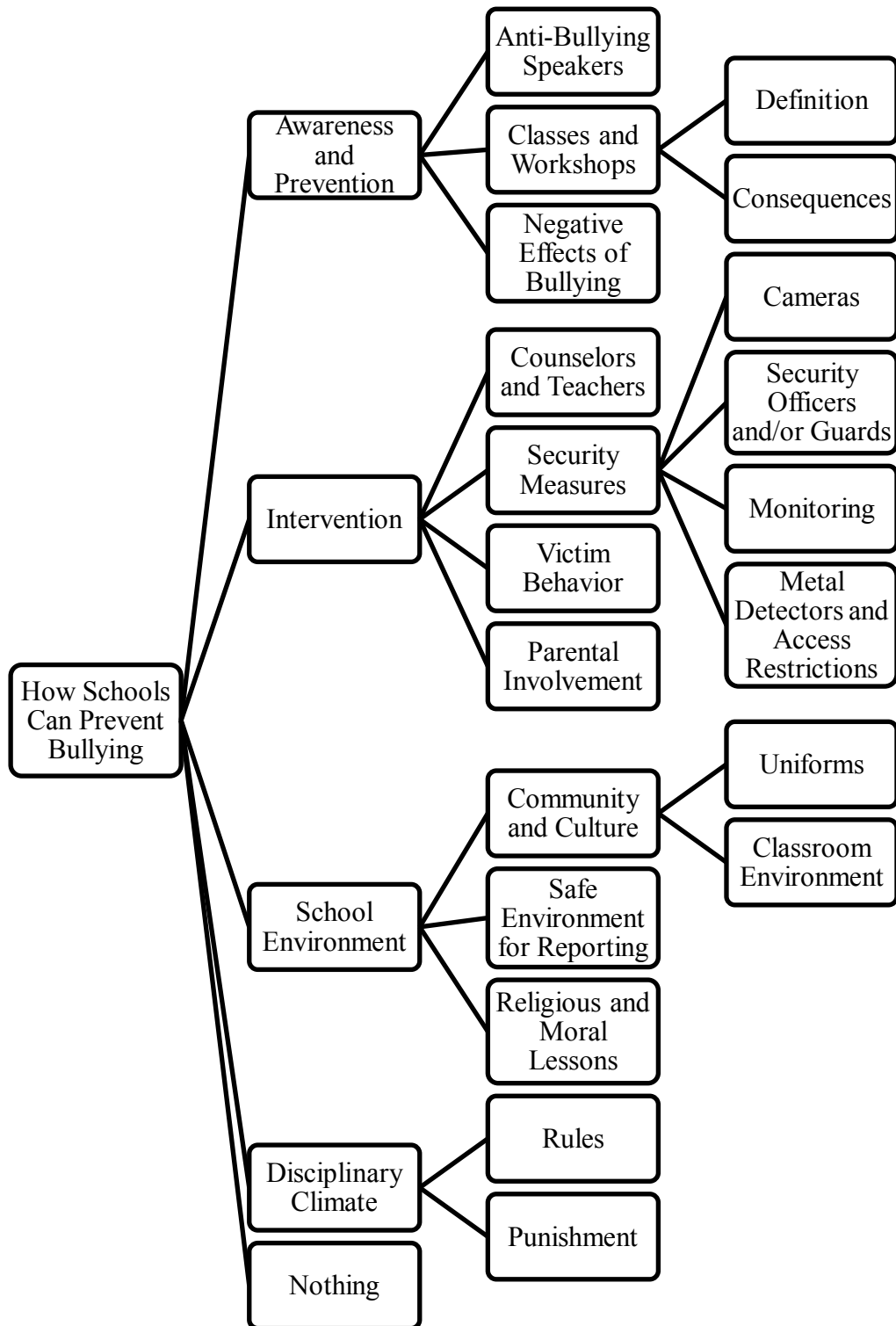
<sup>8</sup> Both variables measuring previous victimization as well as the measure of a weapon in school did not have enough variance amongst the private school sample to predict fear and were omitted from the analysis.

## Chapter 7

### **BULLYING AMONG STUDENTS: WHAT DO STUDENTS BELIEVE SCHOOLS CAN DO?**

This chapter analyzes data collected from an availability sample of undergraduate students at a northeastern university. These participants were asked to answer two open-ended response questions meant to gauge their thoughts and feelings regarding the role of schools in preventing bullying and promoting safety. These qualitative open-ended responses also had the added benefit of allowing students to speak in their own words. This exploratory analysis allows for an understanding of students' perceptions regarding a school environment and what the school itself can do to prevent bullying and help students feel safer. This chapter will discuss the emergent themes uncovered in the first open-ended question, which asked students: "I would like you to tell me, in your own words, what you believe is the most important thing that middle and high schools could do to prevent bullying." Initial descriptive coding of the data led to interpretative coding, which then led to the creation of overarching themes, which will be discussed below. Figure 7.1 presents the five major themes that emerged from this analysis as well as subthemes that were discovered.

**Figure 7.1: Thematic Analysis - How Schools Can Prevent Bullying**



### *Awareness and Prevention*

The most prevalent theme that emerged from the analysis advocated for increased awareness and prevention of bullying through the use of classes, workshops, and guest speakers. In total, 225 references were coded under the overarching theme of awareness and prevention that accounted for 33% coverage of the entire document. This theme also included several subcodes, which called for a specific form of awareness. These included: bringing in anti-bullying speakers who spoke about their own experiences; hosting classes and workshops throughout the school year to discuss the definition, causes, and harms of bullying and how students should handle the situation; hosting anti-bullying programs that specifically spoke to the harm that bullying can cause others including physical and mental difficulties.

Members of the sample repeatedly mentioned the importance of education in regards to bullying. Participants indicated how important it was that everyone in the school environment—staff, teachers, and students—held a common definition of bullying behaviors, understood the dangers of bullying, and were aware of the consequences. Assemblies, workshops, and classes were considered to be the best medium through which the school could accomplish these ends, as long as the “Anti-bullying assemblies capture[d] the attention of the students.” Participants also felt “Workshops during school where students learn how to express emotions in a healthy way without harming others” would be beneficial to preventing bullying behaviors. However, the workshops and classes should not be constrained to students alone. Many felt that teachers could benefit from “increased sensitivity training” and assemblies that aimed to “keep the staff up to date with potential bullying trends.”

Additionally, a number of participants felt it was important that middle and high school students hear personal stories from others. One student wrote, “The best

way to prevent bullying would be education of real life victims that were the age of middle school and high school students.” Another participant suggested that it was crucial to expose students to “...real life tragic stories even though they’re young.” Others suggested that it would be beneficial to allow the students themselves to discuss their own experiences with bullying: “[Have an] interactive assembly where kids can tell their personal stories or show ways they’ve been bullied.” Exposing students to others’ personal experiences and struggles with bullying would help shed awareness on the possible dangers and harms that accompany bullying. Additionally, these speakers would benefit victims themselves, because they would be able to see another individual like themselves who may have been bullied, but has overcome the situation.

Another subtheme of spreading awareness and prevention was highlighting the negative consequences and effects of bullying on victims. For instance, one participant mentioned that middle and high school students need to “[Be] aware that the effects of bullying aren’t just a one day event, but a life long struggle that causes mental/physical harm.” Participants felt that if bullies were more aware of the negative ramifications their actions held, that they would be less likely to partake in such behaviors. These awareness programs would hopefully “[Teach] tolerance by exposing students to the results of bullying. [Include] presentations about self-harm and suicide.” Still, another student advocated the importance of continuing such awareness programs even after bullies have been identified and punished, “Teachers, security guards, administrators, and other staff need to abide by a zero tolerance for bullying and those who bully need to not only be punished but educated in how their actions are harmful to others.”

Recently, researchers have recognized that bullying prevention programs should be informed by students, because they are at the forefront of bullying victimization. Students are in a unique position to understand not only how and why bullying occurs, but also what prevention techniques may be most helpful (Booren and Handy, 2009; Bradshaw, Sawyer, and O'Brennan, 2007). By setting clear definitions of bullying behaviors and sharing experiences of bullying, many middle school students believed that such victimization would decrease (Cunningham, Cunningham, Ratcliffe, and Vaillancourt, 2010; Mishna, Pepler, and Wiener, 2006). Participants in this analysis also touched upon the importance of furthering sensitivity training and anti-bullying workshops for teachers. This may be especially important given that teachers' understanding of bullying can impact their decisions to intervene (Hektner and Swenson, 2012; Mishna et al., 2006).

### ***Intervention***

The second most common theme that emerged from the thematic analysis of student narratives was an emphasis on intervention strategies. Intervention strategies included all statements wherein the participants described behaviors that would decrease bullying once it had already begun. Such responses were distributed amongst four subcodes: behavior of counselors and teachers; security measures; victim behavior; and parental involvement. In total, 170 references were coded under the larger thematic umbrella of intervention and they accounted for 24% coverage of the entire transcription.

Among the four subcodes identified, the actions of counselors and teachers to prevent bullying were the most prominent in the analysis. Many students advocated for the increased presence of guidance counselors in middle and high schools to



prevent bullying. Specifically, these respondents called on guidance counselors to be available for victims and bullies alike and help them deal with their issues. Among bullies themselves, respondents tended to advocate the use of counseling over discipline and punishment. For instance, one respondent wrote, “Schools should employ more social workers to counsel bullies and bully victims. Punishment for bullying shouldn’t be detention or expelling, just counseling.” Others agreed by calling for, “Proper mentoring for those accused instead of an ineffective punishment system,” and “Approach the bullies and try to figure out his psychological problems. Therapy.” Moreover, other respondents called for the use of counseling and peer mediation among bullying victims: “Support groups for those being bullied,” and “Administer a big brother/sister who you can contact at any time—someone who looks out for you.” In fact, one respondent even advocated for, “Counselors that only have that one job to look out for targeted students.” Similarly, respondents felt that the behaviors of teachers could also have an impact on bullying. Many called for increased attention on behalf of teachers, “Teachers could be more attentive to students and try to talk to them instead of waiting for the students to come to them,” and “Teachers can pay more attention to social interactions of students.” Participants tended to highlight the important role that teachers can have in preventing bullying. Teachers are often in the room or general vicinity when bullying takes place and are often the first line of defense against such victimization.

Among intervention techniques that could prevent bullying in schools, participants in this sample were likely to advocate for increased use of security. In fact, many students simply replied that schools could prevent bullying if they used “more security,” or “tougher security at schools.” However within this subtheme, several secondary codes emerged that related to specific school security measures

including: cameras; metal detectors and access restrictions at entrances/exits; security guards; and increased monitoring of students. Perhaps the most repetitive message amongst respondents who called for increased security was an onus on increased monitoring of students. One participant claimed that staff needed to “Pay attention to where they [students] are/what they’re doing. It only happens when you aren’t [looking].” Still another claimed that the school needed to “Be more aware and pay more attention to the student body and act on what they see.” Respondents advocated a variety of ways that surveillance could increase, including “More cameras in school to catch them in the act and be more preventative,” and “Having teachers be present everywhere at all times,” and “Having active and attentive staff looking for the problem and intervene.” Still others advocated the use of metal detectors, restricted access, police officers, and security guards to prevent bullying. A majority of these recommendations coincided with the notion of increased monitoring of troublesome students and the understanding that more staff or preventative measures would result in intervention.

An important subtheme of intervention strategies that emerged was an emphasis on the victim’s behavior and ability to stop his or her own victimization. Responses within this category either promoted the victim’s physical abilities to stop the bullying or emotional and personal capabilities to rise above. Several participants advocated “Teach[ing] self-defense in gym” so that bullying victims would be able to “Fight back. The best way to stop a bully is to strip him of his power over you.” Indeed many of these respondents thought it was important to “Tell kids to suck it up,” or “Have kids be tougher.” In contrast, the other half of respondents who believed that victims should protect themselves focused on improving self-confidence and self-esteem. Some participants wrote, “Teach kids to stick up for themselves and when

and how it is appropriate to react,” and to “Encourage students to be more self confident and stand up to bullies.” Indeed several students felt that schools could not prevent bullying, but it was solely up to the victim to put an end to the victimization. Among respondents who advocated the victims’ role in stopping their own bullying, they were relatively fairly split in terms of whether students should engage in physical fighting to end the confrontation or if increased self-confidence and self-esteem would be able to end the victimization.

Another subset of intervention strategies advocated by students focused on the role of parents. Of these respondents, some believed that the schools could not prevent bullying, but parents could be highly influential. One respondent mentioned, “It should not be a school thing. Parents should raise their kids better.” Other respondents suggested that “It comes from parenting. Make sure the children have good home lives and that will prevent bullying,” and “It should be dealt with in home environments/families with parents being present and taking care of the situation.” Another segment of this population believed that the school, parents, and children should all work together. For instance, some respondents wrote, “Promote communication between parents and teachers,” and “Communicate with the parents to address bullying.” Still, some remarked that there needed to be “More parental involvement in their [bullies’] discipline,” and “Stricter parental education.” Another response combined education and family and advocated the use of “Classes provided to families and their bullying children to help halt the issue. Possibly a class to help bullied kids understand there are safe and non-threatening ways to handle their stress over bullying.” Involving parents seemed to be an important intervention strategy. However, respondents in this subtheme could not agree on the exact relationship between parents and bullying. Some advocated a combined approach, wherein

students, teachers, and parents all come together to figure out the root cause of the bullying and deal with the issue at hand. Still others believed that bullying prevention was not the school's responsibility, but that parents alone should be able to curb bullying behaviors.

Intervention strategies are an important component in all bullying prevention programs. A major subtheme of these techniques was the use of counselors and teachers to either intervene on behalf of the bully or the victim. This finding was particularly interesting given that many have uncovered the ineffectiveness of teachers on reducing bullying (Crothers and Kolbert, 2004; Fekkes, Pijpers, and Berloove-Vanhorick, 2005). Counselors may be more adept at ending victimization as their training has prepared them to be more empathetic and work with both the bully and the victim (Bauman, Rigby, and Hoppa, 2008). Increasing the use of surveillance measures either through monitoring the students or metal detectors has consistently been linked with students' perceptions of decreasing bullying. However, similar to other findings, this study suggests that such measures are not as important as teachers and counselors (Booren and Handy, 2009). Finally, involving parents in bullying acts has been viewed as a legitimate technique in reducing bullying (Cunningham et al., 2010; Fekkes et al., 2005; Olweus et al., 1999). Involving parents may be particularly important given recent findings that suggest family-related factors may impact bullying behaviors (Bibou-Nakou, Tsiantis, Assimopoulos, and Chatzilambou, 2013).

### ***School Environment***

The third overarching theme identified was an emphasis on the school environment. In general, these respondents advocated for a more accepting and positive school environment that was welcoming and made students feel safe. Within

this theme, 119 responses were coded which covered 23% of the document. Several subthemes emerged, including: school community and culture; safe environment to report bullying; religious and moral lessons; and classroom environment.

The most prevailing subtheme that emerged was the call for a school environment that was focused on acceptance, inclusion, and respect. Many respondents called for a more positive school atmosphere believing that this would prevent bullying victimization. Such responses included: “Establish equality; promote respect for everyone,” and “Promote acceptance and a sense of community.” Additionally, many spoke of the importance of promoting equality and tolerance of others’ beliefs: “Teach the students to be open to all ideas and beliefs” and “Educate children and create safe learning environments by providing children with exercises to learn about other cultures.” Others made similar comments: “Teach respect and equality and toleration among all students,” “Create a culture of acceptance and equality in schools,” and “Promote understanding of differences between students (race, religion, economic status, etc).” Within this positive culture of acceptance, respondents also called for inclusion amongst students, “Maybe incorporate all the students so there are no students being left out,” and “They should have monthly school assemblies which would bring the student body together and kids could form strong connections with one another.”

Two subcodes also emerged from the subtheme of community and culture: uniforms or a dress code and the classroom environment. Several respondents claimed that the use of school uniforms or a dress code would prevent bullying. These respondents believed that by, “Enforc[ing] the use of uniforms or equivalent, affluence or use of name brands wouldn’t be a factor.” Another respondent concurred and stated that uniforms should be required, “. . .so that they avoid labels and/or showing class.”

In these instances, participants advocated the use of uniforms to create a sense of equality amongst the student body. By creating a culture whereby students dress alike, any bullying victimization related to such differences would not occur. Finally, one respondent reflected upon her own time in high school and spoke of an important experience that made her realize the importance of accepting her fellow classmates:

One of my teachers decided to do an exercise (without informing us what was going on) where certain kids were forced to sit separately from the rest of the class. These kids would be different in some way (ex. They wore sandals while most people wore sneakers). This got them to experience what it felt like to be bullied for being different.

Another aspect of community and culture that was discussed in the analysis was altering the classroom environment. Respondents mentioned several components of the classroom that could be changed in order to prevent bullying. The first recommendation was the creation of smaller class sizes, in order to increase student-teacher relationships and surveillance of students, "I think that if teachers had closer relationships with the students or if classes were smaller they would see more of the bullying and be able to stop it." Other respondents believed that students should be segregated either based upon their intelligence and academic achievement or by their conduct. By separating students based upon these two notions, respondents suggested that bullying will be prevented in those classrooms that are made up of students who have higher grades or have good conduct. Notably, respondents do not mention preventing bullying among classrooms made up of students with behavioral difficulties.

An additional prevalent subtheme under this overarching notion of school environment was creating a safe environment where students felt comfortable reporting bullying to teachers, counselors, or staff. Respondents noted that this environment could be accomplished in a variety of ways, including: “[Create] a hotline where kids could text in,” or “The most important thing is that kids truly feel like they have an adult in the school system they can talk to if any problem arises.” The ability to be anonymous was also a repetitive theme and relatively important to the respondents when reflecting on how to prevent bullying as one respondent highlighted:

I think there should be a way for kids who are being bullied to talk about it without having to reveal who they are at first. I think most kids who are bullied are afraid to talk about it because they are ashamed, which they shouldn't be and how can anyone stop if we don't know it's happening.

A minor subtheme from this data focused on the use of religious and moral lessons to prevent bullying in schools. Respondents touched upon the importance of teaching moral lessons and even using Bible-based teaching as a means to spread acceptance and prevent bullying. A few touched on the importance of including more references to God, the Bible, Jesus, and The Ten Commandments in school lessons. Overall, this subtheme can be characterized by one participant's words when asked how to prevent bullying in schools: “Better values and attitudes need to be taught and reinforced from an early age.”

This theme of creating a more positive school environment through its culture and community has most in common with the literature focusing on school climate.

Positive student-teacher relationships and an environment based on trust have been found to reduce bullying behaviors in schools (Perkins et al., 2011; Richard et al., 2012; Williams and Guerra, 2011). Moreover, research has uncovered that when schools possess a negative environment that accepts and condones bullying behaviors, then such victimization will inevitably occur (Charach et al., 1995; Goldweber et al., 2013; Unnever and Cornell, 2003a). Another component of this theme—class size—is also a component of school climate and may lead to increased supervision of students and a quality student-teacher relationship that could therefore prevent bullying (Lubienski et al., 2008).

### ***Disciplinary Climate***

The fourth most prevalent theme that came out of this analysis was the role of disciplinary climate in preventing bullying. Within these responses, a disciplinary climate referred to ways the school was able to set rules defining bullying behaviors and provide sufficient punishment and discipline when necessary. There were 113 references coded under this overarching theme and it accounted for 14% of the entire document. Additionally two subthemes were identified as well: rules and punishment.

A majority of participants whose responses fell under this code of disciplinary climate advocated for “clear and enforced anti-bullying rules.” Another participant noted that schools needed to, “Actually tell kids what bullying is.” In addition to possessing clear rules known by the student body, participants also suggested that schools needed to “Actually follow through with it [the rules].” Respondents seemed to suggest that even when school rules are in place and clearly defined for everyone involved, they cannot be effective if the school system does not follow through with its own rules and consequences for breaking those rules. One student suggested



schools needed to “Identify the problem and make an example. Students do not believe anything will happen to them until it actually does.” Additionally, school rules needed to be applied fairly and equally, “Middle and high schools should have administrators that instill the same punishments/consequences for students’ actions no matter whom the student may be.” Furthermore, many suggested making school rules stricter. Perhaps the most common recommendation was for the adoption of zero tolerance policies in regards to bullies, “No tolerance policy. Consequences for just the first sign of bullying.” There was also a subset of this population who called for the ending of school rules that punished the victim for fighting back.

A second subtheme under disciplinary climate was the adoption of harsher punishments for bullies. These punishments ranged from suspensions, bans from school activities, expulsions, corporal punishment, and humiliation of the bully. One respondent intoned, “The most important thing they could do to prevent bullying would be to make the penalties harsh for bullying so that students know it will not be tolerated and the punishment will make them realize it is not worth it.” Another discussed the method of punishment: “They should provide a strict and swift punishment for bullies, not a simple detention or out of school suspension. That doesn’t work.” Overall, respondents who fell under this subtheme advocated for the introduction of harsher penalties on bullies themselves. They seemed to claim that current punishments were not deterring bullying victimization, because they were too “soft” on the bully. These respondents claimed that punishments can only serve as a deterrent when they become more severe and strict.

A common factor in school climate literature involves the measurement of clear rules, fair discipline practices, and order throughout the school (Cohen et al., 2009; Zullig et al., 2010). The use of clearly defined rules has been found to be an

important predictor of delinquency in a school (Gottfredson et al., 2005; Welsh et al., 1999; Welsh, 2001). When students understand school rules and believe that they will not be arbitrarily applied, students are less likely to participate in delinquent activities such as hitting others, participating in gangs, damaging property, and bullying on school grounds (Gottfredson et al., 2005; Welsh et al., 1999). In fact, a main part of both Olweus' prevention programs and recommendations from the U.S. Department of Education call for the creation of clear school rules against bullying (Olweus, 1993, 2001; Olweus et al., 1999; U.D. Department of Education, 2011). Advocating harsher punishments and discipline of bullies has been considered an effective strategy by teachers and counselors alike (Bauman et al., 2008) and is a main component of Olweus' successful prevention programs (Olweus, 1993, 2001; Olweus et al., 1999). However, it should be noted that the zero tolerance policies advocated so fervently by these respondents may not be the most effective method to curb bullying (Skiba, 2000).

### ***Nothing***

The final theme that emerged within this qualitative analysis was that schools can do nothing to prevent bullying. Furthermore, these respondents did not identify any other entities or institutions that could prevent bullying such as parents or victims' behaviors. Rather, this sample advocated that bullying was a natural part of schools, would always occur, and should, in fact, not be stopped. One participant noted we should, "Learn that it's a social necessity and to stop worrying about it. Bullying is good to a degree." Another claimed that "Bullying to an extent, I believe, is a natural thing that is going to happen no matter what." In all, 23 references were coded in this theme and they accounted for 3% of coverage of the bullying analysis.

## *Summary*

These narratives have provided a more nuanced insight into students' perceptions of the factors related to both bullying and fear in schools. For instance, the qualitative thematic analysis investigating how schools can prevent bullying pointed towards the use of awareness and prevention programs. This was the most popular finding purported by respondents. The SCS that was used for quantitative analysis was limited in this aspect. The survey did not ask students *how* bullying could be prevented nor did it ask if students attended prevention programs and workshops. Using open-ended responses allowed respondents to use their own words and thoughts to explain how schools can prevent bullying. Therefore, such an instrument did not narrowly define their thinking patterns as a quantitative survey can. Although perceptions of school climate were not directly solicited, thematic analysis allowed for such patterns to emerge. Specifically, two themes materialized that represented traditional definitions of school climate: school environment and disciplinary climate.

This qualitative data aids in our understanding of the quantitative results. For example, within the quantitative analyses, there was one school climate variable—bonds with teachers—that proved to be an inverse relationship. Students who reported more positive and quality bonds with their teachers were also more likely to report being bullied. However, the qualitative analysis suggests that close relationships with teachers may not be a tool to prevent bullying, but rather, may encourage reporting of such events. This qualitative finding helps to explain why an inverse relationship was uncovered in the quantitative analysis.

Another interesting finding generally supported by both methods was the use of security measures to decrease bullying. The quantitative results state that the use of

security guards and metal detectors decreased bullying. The open-ended responses suggested that security guards, metal detectors, monitoring students, and security cameras would also help schools prevent bullying. However, the quantitative analyses found that security cameras and bullying exist in a positive relationship: the increased use of security cameras correlates with increased reports of bullying. Again, the qualitative analyses may shed some light on this subject. A common theme amongst respondents who suggested the use of surveillance and monitoring students spoke to the importance of catching bullying victimization as it occurs. As such, it is possible that the quantitative analyses is uncovering a positive relationship between security cameras and bullying, because the use of cameras results in the increased reporting of bullying, not necessarily more acts of bullying.

In closing, it is important to recognize that this analysis is exploratory in nature. The purpose of the qualitative data is to allow students the opportunity to discuss aspects of the school environment they believed could reduce bullying. The above analyses represent a first step in understanding how students think about middle and high schools. Specifically, it highlights how students subconsciously perceive school climate factors in relation to bullying behaviors. However, the availability sample of undergraduates who participated in the study may not be well-versed or aware of the empirical research that evaluates bullying prevention efforts. As such, the goal of this component of the research was not necessarily to inform policies aimed at reducing bullying, but to recognize students' perceptions of their school environment.

## Chapter 8

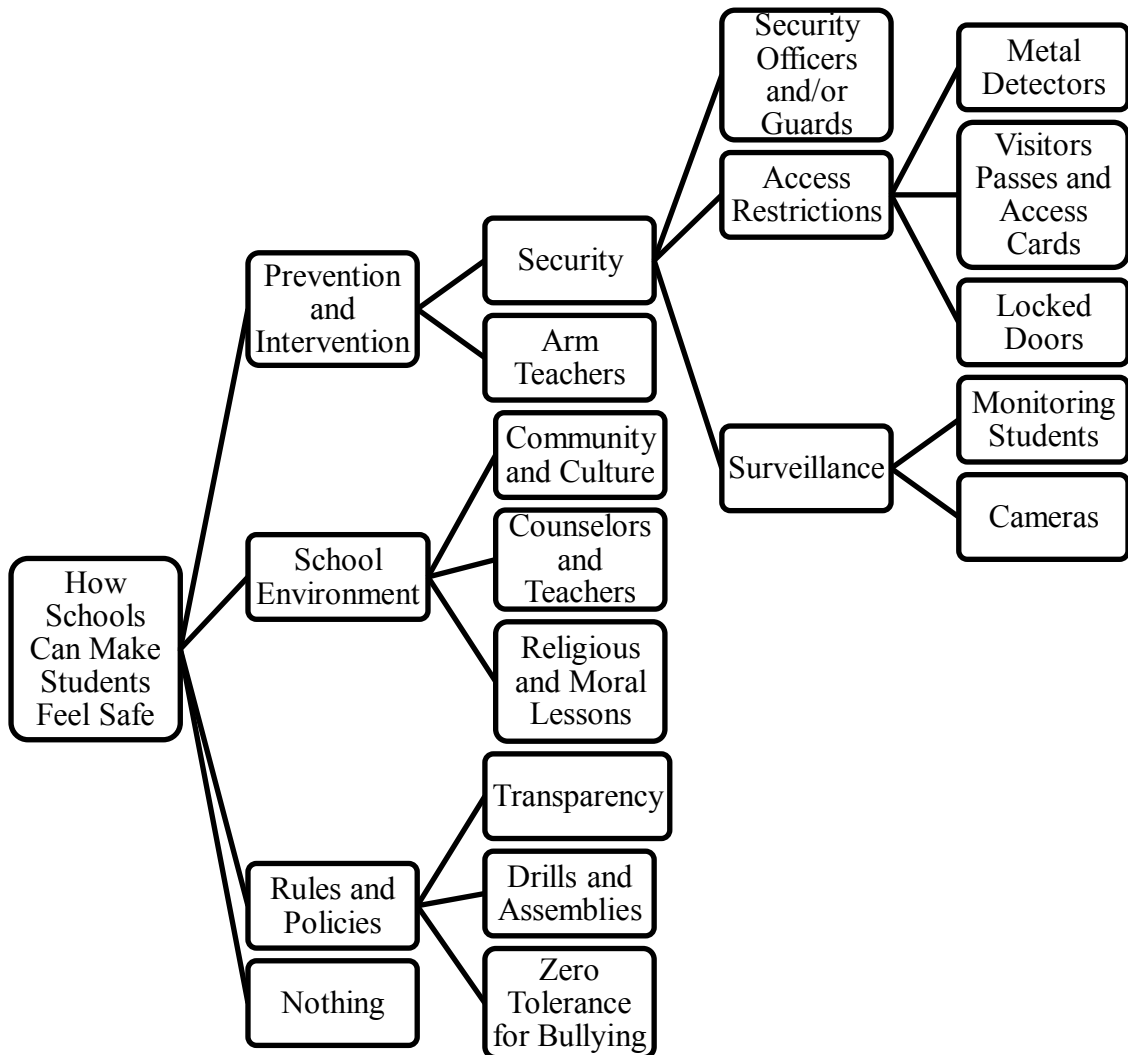
### **FEAR AMONG STUDENTS: WHAT DO STUDENTS BELIEVE SCHOOLS CAN DO?**

Chapter eight presents analysis of data collected from an availability sample of students who attend a northeastern university. This qualitative analysis allows participants to use their own words, feelings, and phrases to explain how they believe schools can help students feel safer. This chapter will present the overarching themes uncovered during thematic analysis of the following open-ended question: “Next, what do you think, in your own words, would be the most important thing middle and high schools could do to make students feel safe from harm.” Initial descriptive coding of the data led to interpretative coding, which then led to the creation of overarching themes, which will be explored below. Figure 8.1 displays the four major themes that emerged from this analysis as well as subthemes that were discovered.

#### ***Prevention and Intervention***

The most coded theme of this analysis was the focus on prevention and intervention techniques. This theme accounted for 333 references that covered 36% of all open-ended responses regarding school safety. Responses within this theme advocated the use of techniques designed to either prevent harm before it occurred or intervene when harm occurs in order to promote a safe environment. This theme diverged into two subthemes that will be explored: security measures and self-defense. Security measures then branched off into several subthemes that identified certain types of security tactics that respondents recommended.

**Figure 8.1: Thematic Analysis - How Schools Can Make Students Feel Safe**



The use of security measures and tactics was the most prevalent subtheme to emerge under the larger umbrella of prevention and intervention. Overall, several respondents mentioned the need for “high security,” “intense security precautions,” and “more security throughout the school.” No respondents advocated for less security measures in the school building. The most consistent response for increasing security and promoting safety in schools was the implementation of security guards, police officers, or school resource officers (SROs). Many suggested the need to “provide trained, armed security personnel” and to have “more protection officers in schools and on school buses.” It was suggested that security officers were to be an additional source of surveillance: “[Need to have] more security officers on school grounds keeping an eye on everything going on throughout the day.” Additionally, many respondents mentioned the need to have multiple guards report to school grounds daily: “There should be at least two or three police officers on duty for protection and intimidation.” While there was an overwhelming consensus advocating for more guards, some respondents suggested they should only play a minor part in school security. One respondent remarked that schools should “Have local police officers occasionally check in at the school. Not arrest kids or look for drugs, but establish relationships with kids and faculty.” Another echoed his statement calling for “Having a small but discrete police presence.” In all, suggestions for the use of security guards, police officers, and SROs were an extremely widespread theme amongst respondents who advocated increased security. However, there were a few members of this sample who detailed the specific use of security personnel in a school environment.

Another subtheme to branch off from security measures was the use of access restrictions. Specifically, this subtheme referred to security techniques used at

entrances and exits throughout the school in order to encourage feelings of safety. This theme was divided into the use of metal detectors, visitors' passes/access cards, and locked doors. This subtheme suggested that harmful and dangerous situations did not arise within the school itself, but rather was brought in to the environment. By restricting visitors' movements and requiring staff, teachers, and students to undergo a metal detector would keep harmful weapons and devices outside of the school. One participant commented that he would "...put metal detectors in school to prevent weapons from entering." Another echoed his statement, "Ensure no unplanned visitors can easily enter campus." One undergraduate in the sample mentioned that, "Metal detectors have a bad connotation but are actually a very useful piece of technology in regards to safety." Furthermore, it was mentioned that such measures would be relatively easy to incorporate: "Metal detectors, locked doors, and visitor passes/clearance are easy measures to implement."

Two additional subthemes emerged from the larger category of security measures: surveillance and arming teachers. In terms of surveillance, respondents promoted the use of security cameras and school personnel monitoring the hallways. The use of security cameras would allow staff and administrators to monitor students' behavior from afar. This would promote feelings of safety, because students would believe that an adult is either always watching over them or will be able to catch any victimization that occurs. Additionally, increased staff monitoring of hallways and school buildings was also suggested. One respondent commented that, "Students should feel like the faculty is there to help them, so teachers should be very present in hallways and very approachable." A greater presence of staff and faculty would communicate the notion that students' behavior is being monitored and there is always an adult around to be of assistance. Finally, a subset of this sample suggested arming



teachers and staff with weapons in preparation for an attack or crisis. This may promote feelings of safety knowing that teachers are prepared to protect students.

The second subtheme that grew out of prevention and intervention suggests that students would feel safer at schools if they were to learn self-defense behaviors. One respondent mentioned the need to, “Educate kids to stand up against outside threats in a group. If a group of kids decided to pull together and fight against the threat.” Physicality seemed to be at the center of this theme with many suggested the need to, “Teach them [students] to fight for themselves,” and “Teach them [students] self-defense and make them work out.” The rationale behind these suggestions is that if students are able to adequately defend themselves against an unknown threat, then they will feel safer in a given environment. The recommendation to fight back did not pertain to students only. Several respondents noted the need to instruct teachers and staff in self-defense lessons, so they could intervene if an issue arose: “Teachers and administrators trained in preventing violence and self-defense.”

The relationship between school security measures and fear at school has been a controversial topic with mixed findings (Bachman, Randolph, and Brown, 2011; Schreck and Miller, 2003; Tillyer et al., 2011). Like the respondents here, supporters of security measures in school advocate their use to reduce fear of crime and victimization. It is important to note that even though 36% of responses were coded under prevention and intervention tactics, this means that about 64% of responses advocated other methods of decreasing fear such as transparent rules and a positive school environment. Furthermore, the research regarding security and fear is mixed. In fact, Schreck and Miller (2003) found that such measures actually increased fear of crime among the student body. One subtheme presented above suggested restricting access at entrance and exit points throughout the school by using metal detectors and

visitors' passes. Research on metal detectors is also mixed. Tillyer and her colleagues (2011) found that metal detectors were the only security measure in their analysis to prevent fear of crime at school, whereas another study found that metal detectors increased fear (Bachman, Randolph, and Brown, 2011). The use of metal detectors may decrease fear amongst students by preventing weapons into the school, which has been found as a significant predictor (Wilcox et al., 2006). However, it was also possible that respondents were advocating further use of security in schools, because such measures have become ever more prevalent in recent years (Kupchik, 2010). Therefore, instead of truly believing that such techniques decrease fear and promote safety, these respondents may be calling upon their own experiences and advocating the increased use of a security-filled environment that they previously attended.

### ***School Environment***

A second overarching theme that notes how schools can assist students in feeling safer away from home is the school environment. Overall, 153 responses were coded under this theme and it represented 32% of the transcription. Among this theme was the creation of three subthemes: community and culture; relationships with counselors and teachers; and religious and moral lessons. Each of these subthemes contains ideas and notions that promote a healthy and positive school environment wherein students feel united and safe.

The most common subtheme of school environment was the community and culture of the school. Respondents suggested that a school that possesses a welcoming and friendly community and creates a culture that does not tolerate violence will promote feelings of safety and well-being amongst its students. Respondents suggested that schools should “have an open environment,” “provide a no-judgment

environment,” and “provide a safe learning environment for ALL socioeconomic classes.” Additionally schools need to “create an environment where they [students] are respected,” “be open and accepting of all people and beliefs,” and “make everyone feel like they belong.” One undergraduate who completed the question explained the need to, “Embrace people’s differences and know that at the heart of it, people just want to be loved and appreciated. Those feelings start with you.” These feelings of kindness may also be the responsibility of students within the school to maintain as one respondent noted, “I don’t think the decision applies to a collective group of kids but rather breaks down for each kid individually to decide to keep their environment/school atmosphere positive.” Furthermore, this school community should be characterized by notions of belonging and acceptance. Respondents suggested the use of “Community events that involve every student, so they become like a big family” and to “Be inclusive in all activities to create a feeling of unity and solidarity.” By creating a positive school atmosphere that strives to include all members of the community, students will feel a greater sense of belonging to their school. When students feel a part of the school environment, they may be more likely to discuss their problems openly (thus inviting some form of intervention), stick up for others who are being victimized, or even not act out in negative ways.

The second most prevalent theme from this overarching topic was the relationship between teachers and counselors. This theme was characterized by the need to enhance relationships between teachers and staff. By creating more positive relationships and building bonds with staff members, students will feel comfortable and able to share their problems. This relationship will therefore increase feelings of safety as students will not feel alone. For instance, one participant mentioned that teachers and staff should, “Engage in conversations with students regularly to see what

is going on in the school. If there is any foul play, act on it. Make them [students] feel they can come to any faculty member to discuss any personal issue.” Respondents seemed to recognize the importance of a bond between students and staff, as one commented, “[Have a] caring adult—knowing someone cares is huge to adolescents. Care and love are more comforting than almost anything.” Echoing this statement, another member of the sample explained that “Teachers could set aside a period of time during homeroom to just talk together about whatever is on their mind and any issues they could be having.” Furthermore, the use of counselors as outlets to discuss problems was also common: “Provide a counselor or support groups for individuals who need someone to talk to.” Forging strong relationships with teachers, counselors, and staff could instill a sense of safety within students. They have an adult who cares about their safety and well-being and will listen.

A minor subtheme that is characterized as part of the school environment is the use of religious and moral lessons. A percentage of respondents who completed the open-ended questions suggested that integrating the teachings from the Bible and the Ten Commandments throughout the school would assist students in feeling safer in their environment. Advocating Christian principles of faith, charity, and love would inspire students to act kind and result in less fear amongst the entire student body.

This theme of school environment most clearly harkens back to measures of school climate (Cohen et al., 2009; Zullig et al., 2010). One of the defining aspects of a positive school climate is the creation of a welcoming atmosphere where all students feel as if they belong. Respondents in this theme particularly touched upon this notion and suggested it would drastically reduce feelings of fear among students. Skiba and his colleagues (2004) note the importance of students’ feelings of connectedness in promoting perceptions of safety. Additionally, a quality relationship between students

and teachers has been a consistent finding in reducing fear among students (Sacco and Nakhaie, 2007; Skiba et al., 2004). In contrast, Astor and his colleagues (2006) suggest that fear of violence at school may be better predicted by physical and verbal victimization experienced by both students and teachers. However, it should be noted the existence of a possible feedback loop wherein school disorder (disruptive behaviors) leads to increased levels of fear, which could lead to self-protection behaviors of students which may increase victimization rates and perpetuate feelings of fear (Plank et al., 2009).

### ***Rules and Policies***

The third most prevalent theme for how schools can make students feel safe away from home focused on rules and policies. In all, 161 references were coded under this theme, which covered 26% of the entire transcript. Participants whose responses were coded in this theme advocated the use of clear rules and policies that were both well-known throughout the school and that the policies were consistently practiced throughout the year. This theme was broken down into three subthemes: transparent policies and rules; practice drills and assemblies; and zero tolerance policies for bullying.

The first subtheme—transparent rules and policies—not only called for schools to have extensive safety policies in place, but to make them well-known throughout the school. It was not merely enough to have well-written policies that aim to keep students safe, but students need to be made aware of such procedures. For instance, one respondent noted the need to “Educate students about the school’s emergency action plan so that students know what to do, remain calm, and have confidence that they will be safe.” Two other respondents echoed this finding: “Inform students of

what you are doing to keep them safe and tell them how you plan to improve safety,” and the importance of, “Having an extensive list of procedures and making sure each student has knowledge of these procedures.” Respondents whose thoughts and feelings fell under this code recognized the importance of clear rules and policies. If students were aware of their school’s efforts to help them feel safe and know what to do in an emergency situation, they may be more likely to feel safe going to school.

The second subtheme that was identified within rules and policies was the need for drills and assemblies. Responses that were coded under this theme recognized the importance of clear and well-written safety policies. However, these individuals also noted the significance of student participation in safety drills. It may not merely be enough for students to know and be aware of school policies in case of an emergency. Although not every contingency can be covered, students may feel safer if they have some experience with how to act during a crisis situation. These respondents recognized the unsafe nature of everything from bullying, bomb threats, and school shootings, to weather disasters. For instance, one respondent noted that “Simply doing and practicing drills like fire safety and lockdown would make students more comfortable in a crisis.” While another recognized that, “...the act of performing disaster preparedness drills would at least make students feel like their school could effectively deal with an emergency.” Finally, a third respondent noted the importance of assemblies as a teaching tool, “Have educational assemblies about bullying, shootings, etc so that students know how to respond to such things.” Drills and educational assemblies will help students feel safer in schools, because they will both know what the schools are prepared to do in the face of an emergency, and the students themselves will know how to behave during a crisis.

The third subtheme that emerged from this analysis was a focus on zero-tolerance bullying policies. These responses focused on preventing bullying behaviors as a means to promote school safety. Such respondents identified that victimization may influence students' feelings of safety and if schools enforced strict bullying rules and policies then an increase in safety would result. Many respondents called for "stricter bullying rules," "bully free zones" and "anti-bullying posters." A general consensus within this theme was that schools needed to "Show that certain behaviors will not be tolerated." Many respondents also suggested ways in which schools could reduce bullying and thus reducing fear: "Have strict consequences for things like bullying," "If the punishment for bullying were higher and the tolerance for it were lower, it would serve to deter potential bullying," and "Providing teachers with training that will teach them how to spot and prevent bullying." Others also suggested moving anti-bullying policies into the classroom with actions such as the need to, "Incorporate bullying prevention material in to the school curriculum."

The use of clear rules and policies has been proven to be a recurrent and significant factor of school climate (Cohen et al., 2009; Zullig et al., 2010). Schools that maintain a positive school climate are not only less likely to report delinquent acts by students (Gottfredson et al., 2005), but they're also more likely to promote feelings of safety (Astor et al., 2002; Bachman, Gunter, and Bakken, 2011; Welsh, 2001). While Akiba (2010) did not uncover significance between clear rules and feelings of safety, she did report a relationship between an orderly environment and levels of fear. Participants' calls for transparency in school policies and use of practice drills throughout the year may lend itself to an orderly environment and thus decrease fear. Moreover, respondents who call for zero tolerance policies for bullying as a method to decrease fear is no doubt linked to the relationship between bullying victimization and

increased fear among the student body, whether as victims or bystanders (Bachman, Randolph, and Brown, 2011; Berkowitz and Benbenishty, 2012; Forber-Pratt et al., 2014; Glew et al., 2008; Jeffrey et al., 2001).

### ***Nothing***

The final theme that emerged from this analysis is that respondents believe there is nothing schools can do to make students feel safe away from home. These respondents stated that even though schools may put prevention, security, and policies in place, they cannot deter someone who is intent on causing harm. This theme accounts for 5 references and covers only 1% of the document. Although this theme only represents a small proportion of all responses, it was interesting enough to this discussion to present. One respondent stated, “It someone wants to hurt someone they are going to do it regardless. There isn’t really a way to ensure absolute safety in a given scenario.” Another concurred that schools can’t protect students, because “This depends on parenting and government regulations, unfortunately.” This subset of participants noted that school safety is beyond structural and organizational constructs that schools are able to provide.

### ***Summary***

The use of mixed methods to examine the relationship between school climate and fear allowed for a more thorough understanding of factors related to fear. The quantitative measure of fear was succinct by asking students whether they feared being harmed either at school or traveling to/from school. Moreover, the quantitative questions were gleaned from the SCS, which is geared towards uncovering criminal victimization in schools. The qualitative component allowed for a broader



interpretation whereby many respondents referenced activities that would increase feelings of safety during a school shooting incident or during a weather crisis. Such an elucidation allowed for a greater depth of responses. Furthermore, several of the precautions recommended by respondents were not addressed to the quantitative sample and therefore could not be analyzed.

Both the quantitative and qualitative analyses called attention to the relationship between bullying and fear. The likelihood of experiencing fear at school or when traveling to/from school significantly increased when students also reported being bullied. A sizeable percentage of responses from the open-ended questions advocated zero tolerance policies. These respondents recognized that the experience of bullying increases students' levels of fear. Like other research studies, the results between the quantitative and qualitative analyses regarding the use of security measures to prevent fear were mixed. The quantitative results indicated that increased staff monitoring was the only security tactic that reduced fear and metal detectors were actually associated with increased fear. However, the thematic analysis identified several security measures that respondents thought would reduce fear: security officers, access restrictions, surveillance, and arming teachers. These mixed results echo the larger literature that finds various relationships regarding security measures and fear.

In closing, it is important to recognize that the thematic analysis is exploratory. The use of qualitative methodology allows students to discuss their perceptions of middle and high schools without being guided by a survey design. The second open-ended question allowed students to hypothetically imagine how schools could increase feelings of safety. However, it should be noted that the availability sample of undergraduates who participated in the study may not be well-informed of policy

issues. Rather, this study is an exploratory venture meant to understand how students think about schools and not advocate for policy changes based on students' perceptions.

## **Chapter 9**

### **CONCLUSION**

Interest in bullying, both academically and by the general public, has steadily increased over the past two decades. As one of the first bullying researchers, Olweus' initial studies nearly twenty years ago paved the way for scholarly interest in the subject. Media stories and the public's concern over the topic was no doubt inspired by a series of school shootings in the United States beginning in the 1990s that often highlighted a possible connection to bullying. In fact, of the 15 school shootings that occurred between 1995 and 2001, bullying of the shooters was identified in 13 of these cases (Leary, Kowalski, Smith, and Phillips, 2003). Moreover, the U.S. Secret Service examined 41 school shootings that took place between 1974 and 2000 and found that bullying occurred in 29 of these incidents (Espelage and Swearer, 2003; Swearer and Espelage, 2004). As a result of such incidents, many schools have reacted by implementing harsher security measures and instituting anti-bullying programs and policies.

Although there may be an association between school shooting events and bullying, a causal relationship cannot be stated. Yet, this interest has inspired researchers to further examine the causes, correlates, and consequences of bullying behaviors. Researchers have made great strides in both understanding the prevalence of bullying victimization and defining what it means to be a bully, a victim, and a bully-victim (Haynie et al., 2001; Levy et al., 2012). We are now more aware of both school and family-related factors that can affect bullying (Bibou-Nakou et al., 2013;

Thornberg and Knutson, 2011; Varjas et al., 2008). Studies have examined short- and long-term effects of bullying, both for the victim and the bully, which can consist of academic problems, substance use issues, and unsafe sexual behaviors (Bradshaw et al., 2013; Glew et al., 2008; Litwiller and Brausch, 2013). Lifecourse and longitudinal scholars have suggested that chronic bullying may even have an impact future aggressive behavior and criminal convictions (Farrington and Ttofi, 2011; Kim et al., 2011; Olweus, 1993; Piquero et al., 2013).

One consequence of bullying that has been uncovered by researchers is students who are afraid at school. Victims and bystanders alike experience increased fear when bullying occurs on school grounds (Bachman, Randolph, and Brown, 2011; Berkowitz and Benbenishty, 2012; Forber-Pratt et al., 2014; Glew et al., 2008; Jeffrey et al., 2001). Fear of crime has been a consistent field of study within criminology since the late 1970s (Garofalo, 1979). However, it has only been recently that scholars have examined students' perceptions of fear and safety in the school (Alvarez and Bachman, 1997; Bachman, Randolph, and Brown, 2011; Schreck and Miller, 2003; Wilcox et al., 2006). This research has uncovered potential harms of being afraid. For instance, fear of being harmed while attending school can result in academic difficulties, truancy, and decreased self-confidence (Brown and Benedict, 2004; Juvenon et al., 2000; Khoury-Kassabri, 2011).

The media, public, and schools' responses to school shootings, combined with recent literature on bullying behaviors has resulted in increased security and anti-bullying programs in schools. As a result, the school environment has been inevitably altered. Due to recent changes in school disciplinary and security climates (Kupchik, 2010), it is necessary to examine how this new environment may have impacted bullying victimization and perceptions of fear. This study aimed to fill this gap. An

additional aspect of this study was to analyze the impact of school sector. Utilizing a mixed methods approach, this dissertation research was able to present comprehensive and well-rounded findings concerning the relationship between school climate and bullying and school climate and fear. The quantitative results provided generalizability while the qualitative component allowed respondents to speak in their own words without being limited by a survey instrument.

### ***Summary of Research Findings***

#### *Examining the Relationship between Bullying and School Climate*

The first research question sought to examine the relationship between bullying victimization and school climate. Chapter five presented the quantitative results, using the School Crime Supplement from 2011, to investigate this question and tested two hypotheses. The first hypothesis stated that students in schools with negative school climate would report higher levels of bullying. The second hypothesis declared that students in private schools would report lower levels of bullying. To test the first hypothesis, several ordinary least squares (OLS) regressions were performed. In order to investigate the second hypothesis, a test for the equality of regression coefficients was performed to analyze differences between public and private school students (Paternoster et al., 1998). Table 9.1 highlights significant predictors of bullying found among the total sample, the public school student sample, and the private school student sample. Additionally, the table displays whether the relationship was positive or negative.

**Table 9.1: Significant Predictors among the Total Sample, Public School Student Sample, and Private School Student Sample Predicting Bullying**

<b>Predictors For Bullying</b>	<b>Total Sample</b>	<b>Public Schools</b>	<b>Private Schools</b>
Positive Classroom Environment	-	-	-
Positive Teachers' Treatment of Students	-	-	-
Rule Clarity/Fairness	-	-	
Strong and Positive Bonds with Teachers	+	+	
Security Guards	-	-	+
Staff Monitors			
Metal Detectors	-	-	
Locked Doors			
IDs			
Security Cameras	+	+	
Drug Availability	+	+	
Fights	+	+	+
Gangs	+	+	
Truancy			
Weapon	+	+	
Private School Sector		N/A	N/A
Female	+	+	
Race (Contrast = White Non-Hispanic)			
Black Non-Hispanic	-	-	
Other Non-Hispanic	-	-	
Hispanic of Any Race	-	-	
Age – 15-18 years old	-	-	-
Grades – Greater Academic Achievement	-	-	
Parents' Education – Some College or More			

The results from chapter five showed that hypothesis one was partially supported: three measures of school climate were found to reduce students' reports of bullying behaviors. One measure of school climate—bonds with teachers—was found

to increase students' claims of being bullied. Classroom environment, teachers' treatment of students, and rule clarity and fairness were found to significantly decrease bullying behavior. As an independent variable, classroom environment measured two constructs: how often students were distracted by other students' misbehavior and how often teachers punished students during class. This measure gauged students' experiences in the classroom and whether this negative environment influenced bullying rates. The regression showed that students who report being distracted by others' misbehavior and no doubt losing class time as teachers discipline their peers were more likely to report being victims of bullying. A second measure of school climate—teachers' treatment of students—was also related to bullying rates. Students who reported being respected by their teachers, cared for by their teachers, and were not spoken to negatively by their teachers were less likely to report being bullied. Finally, when rules were clear, fair, well-known, and equal, bullying was less likely to have been reported.

In all, a positive school climate reduced bullying victimization. The school environment, as a whole, had an impact on students' behaviors. The exact relationship between school climate and bullying was not examined here. For instance, was bullying less likely to occur because students were more likely to report such behaviors due to caring teachers? Or perhaps, bullying was less likely to be reported because bullies were aware of the punishment for such acts. Still, it is possible that a classroom environment characterized by disobedience led to increased victimization in the form of bullying. Interestingly, when students reported closer bonds with teachers—"teachers care for you, notice when you are absent, listen to you, etc."—reports of bullying were increased. Due to cross-sectional limitations of the data, this result could be a temporal ordering issue. It is unknown whether the bullying or the

development of a close relationship with teachers emerged first. Perhaps these students report closer relationships with teachers as a result of being bullied.

The second hypothesis, which was also examined in chapter five, suggested that private school students would report lower levels of bullying. This hypothesis was partially supported. The chi-square analyses presented in this chapter found that certain bullying behaviors were significantly different among the two populations of public and private school students. Four measures of bullying were increased among public school students: being pushed/shoved/spit on, being made fun of/called names/insulted, having rumors spread, and being threatened with harm. Additionally, the regression analyses revealed only two school climate measures that were statistically significant in predicting bullying behaviors. A positive classroom environment and teachers' treatment of students were related to lower bullying rates among private school students. Neither rule clarity and fairness nor bonds with teachers were significant. However, in order to truly compare two groups using regression analyses, a test for the equality of regression coefficients needed to be performed. This test yielded only one school climate measure was significantly different among public and private school students. Classroom environment was the one measure found to differently predict bullying rates among private and public school students. The classroom environment scale was made up of two variables that gauged whether students were distracted in class by others' misbehavior and how often teachers punished students in the classroom. This measure of school climate was significant in all three models: the overall sample, public students, and private students. However, the regression coefficient indicated that this variable differentially predicted bullying rates for private and public school students. Based upon the standardized regression coefficients, classroom environment was a stronger predictor



of bullying among private school students. This could suggest that private school teachers maintain more control over discipline in their classrooms, that discipline does not occur as frequently among private school students, or that private school students may be more accepting of school rules and punishments.

### *Examining the Relationship between Fear and School Climate*

The second research question examined the relationship between school climate and fear among students. Chapter six presented the quantitative analysis of the School Crime Supplement from 2011 to investigate this question. Students' experiences of fear were measured in two ways: whether students were afraid of being harmed at school and whether they feared being harmed traveling to/from school. Four hypotheses were also tested in this chapter. Hypothesis three claimed that students who reported negative school climates would report higher levels of fear. Hypothesis four claimed that students in schools with negative climates would report higher levels of fear traveling to/from school. Hypothesis five declared that private school students would report lower levels of fear than public school students. Hypothesis six stated that students who were bullied would report greater levels of fear. Tables 9.2 and 9.3 present the overall findings from the logistic regression analyses used to investigate this research question.

**Table 9.2: Significant Predictors among the Total Sample, Public School Student Sample, and Private School Student Sample Predicting Fear at School**

<b>Predictors For Fear at School</b>	<b>Total Sample</b>	<b>Public Schools</b>	<b>Private Schools</b>
Positive Classroom Environment			
Positive Teachers' Treatment of Students			
Rule Clarity/Fairness			
Strong and Positive Bonds with Teachers		-	
Security Guards			+
Staff Monitors	-	-	
Metal Detectors			
Locked Doors			
IDs			
Security Cameras			
Drug Availability			
Fights			
Gangs	+	+	+
Truancy			
Weapon			
In-Person Bullying	+	+	+
Private School Sector	-	N/A	N/A
Female			
Race (Contrast = White Non-Hispanic)			
Black Non-Hispanic			
Other Non-Hispanic			
Hispanic of Any Race			
Age – 15-18 years old	-	-	
Grades – Greater Academic Achievement		-	-
Parents' Education – Some College or More			
Previous Victimization – Violent Incidents	+	+	
Previous Victimization – Property Incidents			

**Table 9.3: Significant Predictors among the Total Sample,  
Public School Student Sample, and Private School Student Sample  
Predicting Fear Traveling to/from School**

<b>Predictors For Fear Traveling to/from School</b>	<b>Total Sample</b>	<b>Public Schools</b>	<b>Private Schools</b>
Positive Classroom Environment			
Positive Teachers' Treatment of Students	-	-	
Rule Clarity/Fairness			
Strong and Positive Bonds with Teachers	-	-	
Security Guards			
Staff Monitors	-	-	
Metal Detectors	+	+	
Locked Doors			
IDs		+	
Security Cameras			
Drug Availability			
Fights			
Gangs			
Truancy	+	+	+
Weapon			
In-Person Bullying	+	+	
Private School Sector		N/A	N/A
Female			
Race (Contrast = White Non-Hispanic)			
Black Non-Hispanic	+	+	
Other Non-Hispanic	+	+	
Hispanic of Any Race			
Age – 15-18 years old	-	-	
Grades – Greater Academic Achievement	-	-	
Parents' Education – Some College or More	-	-	
Previous Victimization – Violent Incidents			
Previous Victimization – Property Incidents			

The second hypothesis, which claimed students who perceived a negative school climate would report higher levels of fear, was partially supported. None of the four measures of school climate were significantly predictive of fear among the total sample. However, students' bonds with teachers were significant among the public school sample. Public school students who possessed negative bonds with their teachers were more likely to report being afraid while at school. Furthermore, the fifth hypothesis—private school students would experience less fear—was supported. When school sector was utilized as a control variable in the logistic regression, a negative relationship was uncovered: private school students experienced less fear. The chi-square analyses presented in this chapter also suggested that private school students reported less fear of harm at school.

The fourth hypothesis—that students who perceived a negative school climate would report greater fear away from school—was partially supported as well. Two measures of school climate were significant predictors of fear while traveling to/from school: teachers' treatment of students and bonds with teachers. Both measures uncovered a negative relationship with fear. Students who reported negative treatment by their teachers and a lack of bonds with teachers also reported higher levels of being afraid they would be harmed while traveling to/from school. The fifth hypothesis, that private school students would report less fear, was also partially supported. Although school sector was not a significant predictor in the analyses, the chi-square results highlighted lower levels of fear while traveling to/from school among private school students. The sixth hypothesis was also supported: students who were more likely to experience bullying were also more likely to perceive fear of being harmed.

The lack of a relationship between school climate and fear yielded in this project contradicts previous literature (Akiba, 2000; Astor et al., 2002). While the school climate variables operationalized in this study did not serve as significant predictors, it is possible other measures of school climate will be significant in future research. For instance, school disorder and school security measures, serving as controls, were significant in the model. Gang activity in a school, truancy, and bullying were all predictive of fear. School security techniques—measures of the physical school environment—were also significant in the analyses. Staff monitors, metal detectors, security guards, and the use of ID badgers were each significant in at least one of the fear analyses. The significant relationship found between bullying, school disorder, school security, and feeling unsafe may exist in a feedback loop. Such a feedback loop would support a negative school culture wherein these factors increase feelings of fear, which feed back into these measures (Anderson, 1999; Plank et al., 2009). Fear may serve as a mediating factor between student misbehavior and school climate.

#### *Students in their own Words: How Schools Can Impact Bullying and Fear*

The third research question aimed to understand whether students recognized the possible benefits of school climate measures. In order to answer this query, open-ended questions were posed to an availability sample of 600 students who attend a northeastern university. These questions asked what respondents believed schools could do to prevent bullying and increase feelings of safety. Chapters seven and eight presented the qualitative results of thematic analysis. Thematic analysis is a process whereby qualitative data is coded and then emerging themes are identified.

The first open-ended question sought to understand what schools can do to prevent bullying victimization. Qualitative methods were determined to be the appropriate manner to answer this question, because it allowed young people to answer using their own words and thoughts. Recent literature has identified the importance of allowing students to discuss how and why bullying occurs, because of their experience (Booren and Handy, 2009; Bradshaw et al., 2007). This provides students with a unique perspective and their thoughts and feelings are better able to shape prevention techniques and programs. Table 9.4 displays the overarching themes and subthemes that were identified.

**Table 9.4: Overarching Themes Examining Impact of Schools on Bullying**

<b>Awareness and Prevention</b>	<b>Intervention</b>	<b>School Environment</b>	<b>Disciplinary Climate</b>	<b>Nothing</b>
Anti-Bullying Speakers	Counselors and Teachers	Community and Culture	Rules	
Classes and Workshops	Security Measures	Safe Environment for Reporting	Punishment	
Negative Effects of Bullying	Victim Behavior	Religious and Moral Lessons		
	Parental Involvement			

Thematic analysis uncovered five overarching themes that respondents believe schools can implement to reduce and prevent bullying behaviors. The most prevalent of these suggestions was the use of awareness and prevention programs. Respondents noted that in order for bullying to stop, administrators and staff needed to openly discuss the problem with the student body. A common definition of bullying agreed

upon by all members of the school community was pertinent. Trainings and workshops to identify bullying and its potential harms were also viewed as significant in preventing bullying. The second theme to emerge was intervention techniques. In order to prevent bullying from occurring, respondents noted the importance of someone—whether it be counselors, security measures, the victims themselves, or parents—stepping in to put an end to the bullying. According to Olweus (1993), bullying is a repetitive behavior that continues over a period of time. As such, it would be erroneous to assume that this behavior would suddenly stop. Therefore, intervention strategies by the school are vital in preventing such behaviors. The third and fourth themes to emerge—the school environment and disciplinary climate—were most in line with school climate literature (Cohen et al., 2009; Zullig et al., 2010). Positive disciplinary actions, clear rules, and a sense of belonging have been identified as key elements of decreased bullying in schools (Cook et al., 2010; Guerra et al., 2011; Kasen et al., 2004). The final theme of this analysis was respondents' beliefs that schools could do nothing to prevent bullying. Some of these respondents noted that other factors such as parents and the home environment should curb bullying behaviors. While the literature has noted the importance of family-factors in relation to bullying, it also recognizes the power of the school to influence students' behaviors.

The second open-ended question focused on how schools could help students feel safer. Table 9.5 presents the overarching themes uncovered. Four themes were identified from the responses. The most prevalent theme to emerge was prevention and intervention strategies and techniques. Respondents noted that the best way to reduce fear among students was to increase the use of security in schools. Although this was by far the most popular opinion to emerge, the research does not necessarily support the use of security measures to decrease fear (Bachman, Randolph, and

Brown, 2011; Schreck and Miller, 2003; Tillyer et al., 2011). The next two themes uncovered—rules and policies and the school environment—were representations of school climate measures (Cohen et al., 2009; Zullig et al., 2010). The creation of a positive school climate through clear rules and policies and close relationships with teachers can increase feelings of safety (Akiba, 2010; Astor et al., 2002; Welsh, 2001). Finally, a small percentage of respondents believed that fear of crime was a larger issue that could not be addressed by schools; danger and harm lurked everywhere and schools could not prevent victimization.

**Table 9.5: Overarching Themes Examining Impact of Schools on Fear**

<b>Prevention and Intervention</b>	<b>Rules and Policies</b>	<b>School Environment</b>	<b>Nothing</b>
Security	Transparency	Community and Culture	
Self-Defense	Drills and Assemblies	Counselors and Teachers	
	Zero Tolerance for Bullying	Religious and Moral Lessons	

When understood together, the qualitative and quantitative data analyses provide a more thorough understanding of bullying and fear within schools. The thematic analysis of the open-ended responses provided more depth to the quantitative results. For example, when respondents were asked how schools could prevent bullying, the most prevalent response was the use of awareness and prevention programs. This filled in a limitation of the quantitative analyses, as such a question was not even posed to respondents who completed the SCS. Additionally, a surprising finding in the quantitative analyses—that positive bonds with teachers was associated



with increased bullying—may be explained by qualitative findings. Quality bonds may be associated with an increased reporting of bullying as they provide a safe outlet for students to trust adults, not necessarily increased victimization. Moreover, the contradictory results uncovered regarding security measures as a predictor of either bullying or fear echo the current literature in this field. These findings lend credence to the notion that a mediating factor may exist and the relationship with security measures is not direct. Furthermore, the mixed methods add validity to the school climate findings. Given that both analyses showed significant relationships between school climate facets and bullying and fear suggests that school climate is a pertinent factor.

This study contributes to the current body of research in several ways. First, this research adds to the growing field of bullying research. While bullying is not a new phenomenon and has most likely existed for quite some time, it has only been recently that scholars have paid it serious attention (Feder, 2007). Within the past two decades, bullying has become a “social problem” as seen by the attention paid to the subject by the media. While bullying itself is not necessarily a new act, this increased attention to the issue has highlighted its severe consequences (Levy et al., 2012). Scholars continue to learn about not only the definition and consequences of bullying, but also its varied relationships with race, ethnicity, class, gender, age, and academic achievement, just to name a few. Recently, this literature has expanded to examine bullying within the school environment. This study contributes to this area by highlighting the relationship between school climate, school sector, and bullying.

Similar to the rise of bullying literature, criminologists and sociologists alike have only recently begun to examine fear of crime. While fear of crime research has been a mainstay in research since the late 1970s (Garofalo, 1979), it is only recently

that scholars have examined how youths experience fear and how fear manifests itself in school environments. This study also contributes to this growing area of research. By examining how school climate can affect a student's experience of fear, this study can inform schools on better ways to help their students. Additionally, the relationship between bullying and fear, while identified, is still in its infancy. This research specifically adds to this area of the literature by speculating that bullying may serve as a mediating factor between school climate and fear.

This research has also advanced the literature on both bullying and fear by examining the role of school sector in predicting these variables and by examining whether differential factors influence each within sector-specific analyses. Understanding the role and impact of school sector has been relatively dormant in recent literature. School choice studies, which examined why parents chose private schooling for their children, have been increasing in frequency since the 1990s. This research expands this topic by examining how school climate may differentially impact students based upon their sector. This study also contributes to the growing body of work examining school climate. School climate was originally defined over a century ago (Perry, 1908); however, scholars have only recently begun to grapple with the various facets of this construct (Cohen et al., 2009; Zullig et al., 2010). This study contributes to this field by examining how certain facets of school climate affect bullying and fear in schools. Additionally, this dissertation examines the relationship between school climate, school sector, bullying and fear. This is not a question that has been explicitly addressed in the literature. Finally, examining the school-level factors perceived to be related to bullying and fear by students themselves has provided a more nuanced understanding of these phenomena than a fixed-format survey can obtain.

### ***Limitations***

Although this research yielded significant results and theoretical insights, it is not without its limitations. The use of the SCS for the quantitative analyses possesses several limitations. First, the SCS is a self-report victimization study part of the NCVS. As such, participant recall may not be reliable. A limitation inherent to survey research is the possibility that respondents may not recall an event correctly or they may embellish or exaggerate the characteristics of an incident. Second, the SCS is a cross-sectional research design. With all cross-sectional studies, temporal ordering is a limitation. Causality cannot be determined in this research because it was not possible to identify the order of the independent and dependent variables. More specifically, this study could not determine whether negative school climate variables or increased bullying and fear existed first.

The use of open-ended responses for qualitative analyses presents its own set of limitations. Similar to the quantitative survey data, respondents could falsify or exaggerate their answers. Even though respondents were assured that confidentiality and anonymity would be maintained, some respondents may not have been reassured and could thus have fabricated their responses and not shared their true thoughts on the subject matter. Additionally, this sample consisted of undergraduate students who attend a northeastern university. While the use of students who are not far removed from the age of middle and high school students may be able to reflect on their experiences, they are not currently attending such schools and may therefore have different perspectives on the subject than younger students. Furthermore, these results may not be generalizable to a population outside of undergraduate students who attend a similar university. Additionally, the use of open-ended responses may not have provided the respondents with enough time to expound upon their answers.

Although the use of mixed methods hopefully offsets some of these limitations, such issues should be considered in future research.

An additional limitation is the sample size difference between public and private school students. Private school students only made up 7.9% (n = 461) of the SCS dataset, whereas public school students made up 92.1% (n = 5,390). Although the number of private school students is relatively low, the percentage of private school students is representative of the larger population (Broughman and Swaim, 2013). However, this large discrepancy of participants in the survey could also account for the lack of significant results, or even committing methodological errors, among the private school models. Larger sample sizes increase the probability of uncovering significant results, because they more reliably reflect the population parameters. It is therefore possible that the lack of private school students who completed the SCS could be responsible for the reduced number of significant predictors, because the dataset may not be representative of the private school population.

### ***Future Research and Policy Recommendations***

This research study suggests the need for further exploration and analysis into the field of bullying and school climate. First, this literature review and analyses highlight the need to further investigate how school climate facets are related to both bullying and fear. The definition of school climate is currently in flux and future research needs to continue to tease out a commonly agreed up operationalization of the term. Additionally, once the definition of school climate has been determined, research can progress to investigate the most salient aspects of climate that affect bullying and fear. Furthermore, multi-level analyses that measure school climate

factors at both the school and individual level would provide greater insight into how school climate affects bullying and fear.

One hypothesis of this study predicted that a negative school climate would be related to increased levels of fear at school among students. However, the original logistic regressions revealed that none of the four school climate scales were significantly related to fear. To determine whether bullying was actually mediating the effect of school climate and fear, bullying was added to the model to serve as a control variable; however, it was revealed to increase the odds of experiencing fear by at least 1,000% in each of the three models run. As such, additional analyses were conducted removing the bullying measure. Once this measure was removed, three of the four school climate factors were significantly related to fear at school. This finding suggests that bullying may serve as a mediating factor between the school climate and fear relationship. Future research should focus on this finding and expand these analyses to examine the possible mediating relationship between bullying, school climate, and fear.

A major aspect of this study was to investigate the role of school sector when examining school climate, bullying, and fear. However, overwhelmingly school climate was not a significant predictor of bullying and fear among private school students. This finding was in light of significant differences between public and private school students as well as significant findings indicating that private school students experienced less bullying and fear. This lack of significant results indicates the need for further analyses. Future research should continue examine the unique environment of the private schools and understand contextual differences in climate between public and private schools. If school climate is not a predictor of bullying and fear among private school students, then what is? Additionally, given the

relatively small sample size of private school students utilized in this study, it is necessary to expand upon these samples to be able to adequately and effectively understand the private school environment and its relationship to bullying and fear.

Several findings and themes emerged from the qualitative data that need to be elucidated as well. For instance, one of the most prevalent themes to come out of the thematic analysis was the use of bullying prevention programs. While several have investigated the use of such programs, few have done so from the perspective of the student, which has been uncovered to be important (Booren and Handy, 2009; Bradshaw et al., 2007). It would also be useful to investigate the implementation and development of such programs and if student guidance is helpful in preventing bullying. Future research should investigate programs that use student feedback to alter their curriculum and observe its effects on bullying in schools.

Future research should also focus on the role of teachers and bullying behaviors. Thematic analyses uncovered in this study suggest that increased and quality bonds with teachers could decrease levels of bullying and fear by allowing students to talk openly with an adult. Further untangling this exact relationship could prove to be a crucial facet of decreasing bullying and fear in schools. However, more so than bonds with teachers, respondents in this study recognized the effectiveness of counselors. Researchers should continue to tease out these relationships to uncover why exactly respondents called for more counselors or increased sensitivity training for teachers. Perhaps there is some aspect of training and education of guidance counselors that creates a more empathetic and understanding nature that could be adopted by teachers in order to prevent bullying incidents (Bauman et al., 2008). Multi-level analyses that examine how teachers, students, and the school operate as one unit would also prove to be beneficial.

Another aspect of this study that should be further investigated is the mixed findings of school security measures, both among the quantitative and qualitative analyses. This is already a prevalent topic in the field, but it is necessary to understand why certain security techniques were either suggested by respondents or found to be significantly related to bullying and fear. Do middle and high school students want more security because of the increased criminal justice environment that has recently permeated schools or do they truly believe that such measures will increase safety and decrease bullying?

Several of these questions can be answered while addressing the methodological limitations presented above. First, the use of longitudinal studies would erase the temporal ordering issue. Longitudinal research will be able to identify whether school climate variables affect bullying and fear or whether bullying and fear impact the school climate. Even among cross-sectional studies, a more thorough survey instrument could be implemented. This survey could contain more precise school climate elements and ask specific questions about bullying incidents and feelings of safety. While the open-ended responses provided an additional depth to these analyses, future research could make use of in-depth interviews and/or field observations. Interviews would allow students, teachers, and administrators to speak more freely and at length about the subject matter. While this study focused solely on the perceptions of students, future directions should examine how teachers and administrators view these issues. More themes may emerge from such an analysis that advances the results presented above. It would be useful to talk to middle and high school students as opposed to only gathering data from undergraduates as this study did. Moreover, it is important to determine if these findings vary by race/ethnicity and gender. This research controlled for gender and race, however, it is important to

determine whether the same factors differentially affect bullying and perceptions of safety across race/ethnicity and gender lines. Finally, the quantitative analyses provided an additional facet by investigating the role of the school sector and found significant differences between school climate variables and bullying. Furthermore, school sector was a significant predictor of students' reports of fear at school. The qualitative analyses, as exploratory in nature, did not address this issue. As future research stemmed from these findings moves forward, it would be pertinent to include school sector in qualitative analyses to possibly uncover additional relationships between school sector, bullying, and fear.

### ***Conclusion***

This study examined the role of school climate factors and their effects on bullying and fear in schools. Using a mixed methods approach, this research was able to highlight the role schools can play in either increasing or decreasing bullying and fear. Students spend a large portion of their within school walls. As such, it is extremely important to highlight how schools can provide a safe environment for their students as perceptions of safety are inextricably linked to overall wellbeing and to the ability to learn. This dissertation highlighted the role of certain school climate factors, such as classroom environment, bonds with teachers, teachers' treatment of students, and rule clarity and fairness. It also brought attention to how school disorder and school security measures can impact bullying and fear. This research also delved into the role of school sector and how certain school environments may differentially impact students' experiences. It is hoped that this research will be the catalyst for future research examining the effects of school environment on bullying behavior and perceptions of fear.



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## Appendix

### IRB LETTERS



**RESEARCH OFFICE**  
210 HULLIHEN HALL  
UNIVERSITY OF DELAWARE  
NEWARK, DELAWARE 19716-1551  
*Ph:* 302/831-2136  
*Fax:* 302/831-2828

DATE: October 4, 2013

TO: Katie Farina, M.A.  
FROM: University of Delaware IRB

STUDY TITLE: [520681-1] School Climate, Bullying and Fear: Does School Sector Matter?

SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS  
DECISION DATE: October 4, 2013

REVIEW CATEGORY: Exemption category # 4

Thank you for your submission of New Project materials for this research study. The University of Delaware IRB has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will put a copy of this correspondence on file in our office. Please remember to notify us if you make any substantial changes to the project.

If you have any questions, please contact Nicole Farnese-McFarlane at (302) 831-1119 or [nicolefm@udel.edu](mailto:nicolefm@udel.edu). Please include your study title and reference number in all correspondence with this office.



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DATE: February 21, 2014

TO: Ronet Bachman, PhD  
FROM: University of Delaware IRB

STUDY TITLE: [570243-1] Fear of Victimization  
IRB REFERENCE #:   
SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS  
DECISION DATE: February 21, 2014

REVIEW CATEGORY: Exemption category # 2

Thank you for your submission of New Project materials for this research study. The University of Delaware IRB has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will put a copy of this correspondence on file in our office. Please remember to notify us if you make any substantial changes to the project.

If you have any questions, please contact Nicole Farnese-McFarlane at (302) 831-1119 or nicolefm@udel.edu. Please include your study title and reference number in all correspondence with this office.