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## **Is It Better to Be Tough, or Is Consistency Key? A Multilevel Analysis Examining the Effects of School Disciplinary Procedures on Perceptions of Climate and Safety Among Students and Teachers**

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IS IT BETTER TO BE TOUGH, OR IS CONSISTENCY KEY? A MULTILEVEL ANALYSIS  
EXAMINING THE EFFECTS OF SCHOOL DISCIPLINARY PROCEDURES ON  
PERCEPTIONS OF CLIMATE AND SAFETY AMONG STUDENTS AND TEACHERS

by

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## ABSTRACT

### IS IT BETTER TO BE TOUGH, OR IS CONSISTENCY KEY? A MULTILEVEL ANALYSIS EXAMINING THE EFFECTS OF SCHOOL DISCIPLINARY PROCEDURES ON PERCEPTIONS OF CLIMATE AND SAFETY AMONG STUDENTS AND TEACHERS

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Old Dominion University, 2021  
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Though delinquency and violence have been steadily decreasing in American schools, research suggests that discipline use has not followed that same downward trend. This raises questions to why schools are reliant on certain disciplinary practices if rates of student misbehavior are not increasing. Due to zero tolerance mandates, schools often take a harsh approach to punishment, yet are also inconsistent in the punishment of similar misbehavior among students, which often leaves students feeling frustrated and sometimes, unsafe. How do school disciplinary decisions affect the ways in which school actors, such as students and teachers, perceive their schools' environments? This broad question guides the current study, which aims to examine the effects of school discipline decisions on perceptions of climate and safety among students and teachers.

Using the National Education Longitudinal Study of 1988, this research employs a longitudinal design and multilevel modeling to examine two sets of separate models, one focusing on students and one focusing on teachers, each nested within schools. The theoretical constructs of legitimacy and subjective powerlessness are used to examine whether perceptions of discipline enforcement as legitimate and/or perceptions that school actors have little control over certain aspects of their lives condition the effects of school level disciplinary decisions on perceived climate and safety. Findings suggest that the severity and consistency of school level

disciplinary decisions significantly impact various indicators of perceived school climate and safety among students and teachers, and that the theoretical constructs of legitimacy and subjective powerlessness significantly condition many of these effects.

This research fills a gap in the existing literature by examining how school disciplinary decisions affect school environments themselves, rather than examining the correlates or predictors of discipline use or the outcomes of discipline use outside of school walls. Furthermore, it examines the effects of discipline consistency, quantifies administrative discretion, and focuses on teacher outcomes; all areas largely neglected in the school discipline literature. Policy implications primarily concern abolishing zero tolerance mandates to allow for appropriate discretion in discipline enforcement, so that schools' punishment of misbehavior is more student centered rather than offense centered, and therefore more equitable.

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## CHAPTER I

### INTRODUCTION

#### THE CURRENT STATUS OF AMERICAN SCHOOL DISCIPLINE

Punishment in American schools has traditionally been punitive, based on the philosophies of rational choice and deterrence (Beccaria 1764/1963; Brown and Esbensen 1988). However, the implementation of policies such as zero tolerance and the hypervigilance surrounding serious violence such as mass shootings have led to school discipline strategies often deemed excessive and criticized for their unequal application (McFadden et al. 1992; Skiba and Knesting 2001; Dunbar Jr. and Villarruel 2002; American Psychological Association Zero Tolerance Task Force 2008; Welch and Payne 2010, 2012; Edwards 2016; Wolf and Kupchik 2017). Though the toughest punishments should be reserved for the worst and most violent types of student misbehavior, research regularly finds that American students are punished via exclusionary practices such as out-of-school suspension, expulsion, and increasingly arrest, for relatively minor behavioral infractions such as classroom disruption or insubordination (Skiba and Knesting 2001; Raffaele-Mendez and Knoff 2003; Hirschfield 2008; Fowler 2011; Edmiston 2012; Burke and Nishioka 2014; French-Marcelin and Hinger 2017). Furthermore, extreme examples of such instances have recently been recorded and picked up by the media, eliciting public criticism primarily concerning schools' responses. In 2015, for instance, a 16-year-old South Carolina student was forcibly arrested by a school resource officer for failing to give up her cellphone (The Associated Press 2015), and in September 2019, a 6-year-old Orlando student was arrested after throwing a tantrum at school (Marr 2020).

School safety is understandably a priority for policymakers, practitioners, parents, and students, especially in the aftermath of incidents such as Columbine, Sandy Hook, and Parkland; and fortunately, delinquency, violence, and victimization at school appear to be steadily decreasing (Madfis 2016; Musu et al. 2019). Between 2001 and 2017, the total percentage of students between the ages of 12 and 18 who reported being victimized at school in the prior six months decreased from 6% to 2%, according to the 2018 School Survey on Crime and Safety (Musu et al. 2019). These decreases were seen among both males and females as well as among White, Black, and Hispanic students (*ibid.*). These findings, taken with the empirical reality that extreme events such as mass shootings at schools are rare (Muschert and Madfis 2013; Madfis 2016), should indicate that schools' disciplinary strategies are working effectively to deter delinquency and violence.

Promising findings regarding the decrease in student victimization should be accompanied by findings indicating a decrease in the use of serious disciplinary action. However, this does not appear to be the case. Research by Losen et al. (2015) reveals that nationally, out-of-school suspension rates have leveled off among White, Black, and Hispanic students since the early 2000s. Though this leveling off does not indicate an increase; researchers should be observing suspension rates gradually drop in tandem with decreases in student victimization, especially considering that out-of-school suspensions are supposed to be reserved for more serious student misbehavior such as physical violence or weapons possession (Skiba and Knesting 2001; Casella 2003). However, this is not occurring, considering Losen et al.'s (2015) conclusion that between the 2009 and 2012 school years, "no real progress was made in reducing suspension rates for grades K-12" (p. 5).



Other research has reported decreases in serious disciplinary action such as out-of-school suspension and expulsion, however this research is seriously limited by failing to account for disciplinary action taken for certain student infractions (Musu et al. 2019). For instance, a recent iteration of the School Survey on Crime and Safety (2018 school year) indicates that the percentage of public schools taking serious disciplinary action such as out-of-school suspension and expulsion has decreased since 2003 (between the 2003-04, 2009-10, and 2015-16 school years); however, the final report notes that “[t]otals for 2003-04 are not comparable to totals for 2009-10 and 2015-16, because the 2009-10 and 2015-16 questionnaires did not include an item on insubordination” (Musu et al. 2019:107). Considering other research that has found that schools are more regularly and freely applying serious and exclusionary disciplinary action to student infractions such as insubordination and classroom disruption (Skiba and Knesting 2001; Raffaele-Mendez and Knoff 2003; Hirschfield 2008; Fowler 2011; Edmiston 2012; Burke and Nishioka 2014; French-Marcelin and Hinger 2017), the above findings regarding schools’ supposed decreased use of serious disciplinary action should be considered with caution.

This chapter provides an overview of explanations for why school disciplinary practices are implemented in their current form and discusses relevant associations among school discipline, school climate, and perceptions of safety. In addition, it describes the purpose and significance of this study, as well as the organization of future chapters. As the focal outcome of this study, school climate conceptualizes the general feeling of schools as communities, and often serves as an umbrella concept under which perceptions of safety also falls. Identifiers of positive school climates generally include strong teacher-student relationships, mutual trust and respect among school actors, high levels of morale, feelings among school actors that they are supported in their roles, feelings of increased safety, low levels of disorder or violence, and fair

disciplinary practices (Anderson 1982; Gottfredson 1986; Welsh 2000; Payne, Gottfredson, and Gottfredson 2003; Stewart 2003; Schreck and Miller 2003; Gottfredson et al. 2005; Hoffmann and Dufur 2008; Kupchik and Ellis 2008; Apel, Pogarsky, and Bates 2009; Kirk 2009; Way 2011; Gregory, Cornell, and Fan 2011; Burdick-Will 2013; Kupchik and Catlaw 2015; Lacoe 2015; Peguero et al. 2017; Fissel et al. 2019). While prior research has focused on the effects of perceived school climate and perceptions of safety on disciplinary outcomes, this study takes the opposite approach to determine whether schools' disciplinary styles impact the ways in which students and teachers feel about their schools.

## EXPLAINING SCHOOL DISCIPLINARY DECISIONS

If delinquency and violence are decreasing in schools, why are rates of serious disciplinary action such as out-of-school suspensions and expulsions not also decreasing? One common answer involves the role of discretion in the application of school disciplinary practices (Dunbar Jr. and Villarruel 2002; Kafka 2008). Though many schools have adopted zero tolerance approaches to discipline, which attempt to reduce the role of discretion in the doling out of punishment (Verdugo 2002; Mayer and Leone 2007; Kafka 2008), research suggests that principals' discretion and their philosophies related to punishment influence responses to student misbehavior (Dunbar Jr. and Villarruel 2002; Skiba et al. 2015). For instance, Dunbar Jr. and Villarruel (2002) revealed that principals have varying understandings of what "zero tolerance" discipline entails and that some are generally confused about what actions constitute punishable offenses. Skiba et al. (2015) additionally found that principals' philosophies concerning punishment is a significant predictor of expulsion specifically: in schools where principals are more oriented toward harsh disciplinary responses, students were significantly more likely to

receive expulsion. These findings indicate that discretion and individual feelings toward punishment infiltrate disciplinary decisions, regardless of attempts to standardize school punishment.

Fears associated with mass school shootings such as Columbine additionally shape schools' disciplinary responses, especially in what some term the post-Columbine era (Madfis 2012, 2016). The Columbine incident changed the landscape of school discipline primarily because it created mass anxieties and promulgated the belief that similar incidents could occur in any school at any time, despite evidence documenting the rarity of such incidents (Muschert and Peguero 2010; Muschert and Madfis 2013; Madfis 2016). The ever-present fear among school officials and the general public of future potential Columbine-like incidents has resulted in schools changing their security and disciplinary measures "to prevent rare but extreme cases of violence, rather than ordinary student misbehavior" (Madfis 2016:42). This hyper-focus on extreme violence has created a net-widening effect, where most ordinary student misbehavior (especially minor misbehavior) has now been reconceptualized as a potential precursor or threat of extreme violence that should be handled via punitive school discipline in the spirit of deterrence. Skiba and Knesting (2001) describe a few such incidents:

In Deer Lakes, Pennsylvania, a five-year-old was suspended for wearing a five-inch plastic ax as part of his firefighter's costume to a Halloween party in his classroom...In Chicago, a high school junior who shot a paper clip with a rubber band and hit a cafeteria worker instead of the friend he was aiming at was expelled, taken to county jail for seven hours, and encouraged to drop out of school...[And in] Irvington, New Jersey, two second graders were suspended and charged by local juvenile authorities with making terroristic threats after pointing

a piece of paper folded to look like a gun at classmates and saying, “I’m going to kill you all.” Pp. 17, 23

Arguably, the above examples simply describe children behaving like children, and not necessarily acting delinquently or criminally. However, such incidents are now no longer considered trivial and can no longer be taken for granted due to school officials’ constant fears of what *might* happen; and the liability issues that might arise should they fail to appropriately respond (Madfis 2016). Interestingly, however, Madfis (2016) points out that since Columbine, “rates of youth violence and school violence in particular remain lower than the early 1990’s...yet most of the policies and procedures formed in the initial wake of public anxiety over school rampages remain in place” (p. 43). Because schools are always on high alert as if a school rampage shooting could happen any time, they are essentially primed to address any type of misbehavior through this lens. This at least partially provides support for what others have found regarding schools primarily utilizing out-of-school suspensions for infractions such as disobedience or insubordination (Skiba and Knesting 2001; Raffaele-Mendez and Knoff 2003; Hirschfield 2008; Fowler 2011; Edmiston 2012; Burke and Nishioka 2014; French-Marcelin and Hinger 2017).

Other research suggests that individual student race, racial makeup of schools, and racial stereotypes additionally influence disciplinary decisions and contribute to race gaps in punishment (Gregory et al. 2010; Skiba et al. 2015; Bal, Betters-Bubon, and Fish 2019). Research regularly finds that Black and Hispanic students are disproportionately punished at school, often despite committing fewer and less serious infractions than their White counterparts (McFadden et al. 1992; Townsend 2000; Verdugo 2002; Raffaele-Mendez and Knoff 2003; Mayer and Leone 2007; Simmons 2009; Gregory et al. 2010; Peguero and Shekarkhar 2011;

Skiba et al. 2015; Peguero, Bondy, and Shekarkhar 2017; Pesta 2018). Generally, this research finds that not only do Black and Hispanic students make up greater percentages of students who receive harsh exclusionary discipline (McFadden et al. 1992; Raffaelle-Mendez and Knoff 2003; Welch and Payne 2010, 2012), but also that Black and Hispanic students are significantly more likely to receive harsh exclusionary discipline than White students (Raffaelle-Mendez and Knoff 2003; Peguero and Shekarkhar 2017; Pesta 2018; Bal et al. 2019).

Furthermore, Welch and Payne (2010, 2012) found that schools with greater percentages of Black students are significantly more likely to use punitive disciplinary practices such as out-of-school suspension and expulsion, regardless of student misbehavior or delinquency levels. This indicates that not only does individual student race play a role in disciplinary decisions, but so too does the entire racial makeup of schools. Finally, negative racial stereotypes about Black and Hispanic students often infiltrate disciplinary decisions, because these students are more often conceptualized as threatening, violent, defiant, or disrespectful (Solorzano 1997; Verdugo 2002; Monroe 2005; Welch 2007; Simmons 2009; Kupchik 2009; Morris 2015). For instance, Black male students “are more likely to be suspended because they appear threatening or because they are disrespectful...[while] White students are suspended for guns, weapons, and drug violations” (Verdugo 2002:60). This furthermore leads to racial gaps in discipline by creating a net-widening effect, whereby for students of color, a wider range of behaviors are characterized as deviant and are thus eligible for disciplinary action (Gregory et al. 2010; Skiba et al. 2015; Bal et al. 2019).

## SCHOOL DISCIPLINARY DECISIONS, SCHOOL CLIMATE, AND SCHOOL SAFETY

The ways in which schools punish misbehavior significantly shape the general feeling or environment of schools as communities, a concept known as school climate. School climate encompasses “beliefs, values, and attitudes that become the style of interaction between students, teachers, and administrators” (Welsh, Greene, and Jenkins 1999:74). Generally, identifiers of positive school climates include strong teacher-student relationships characterized by mutual trust and respect, a strong sense of school spirit or morale, feelings among teachers and students that they are supported in their roles at school, perceptions of increased safety, and low levels of disorder or violence (Anderson 1982; Gottfredson 1986; Welsh 2000; Payne, Gottfredson, and Gottfredson 2003; Stewart 2003; Gottfredson et al. 2005; Hoffmann and Dufur 2008; Apel, Pogarsky, and Bates 2009; Kirk 2009; Way 2011; Gregory et al. 2011; Burdick-Will 2013; Kupchik and Catlaw 2015; Peguero et al. 2017). Additionally, positive school climates are characterized by consistent and fair disciplinary practices (Schreck and Miller 2003; Kupchik and Ellis 2008; Way 2011; Gregory et al. 2011; Lcoe 2015; Peguero et al. 2017; Fissel et al. 2019).

School climate and school disciplinary styles are often reciprocally related, making it difficult to determine causality. For instance, it is likely that more positive school climates lead to more consistent and fairer disciplinary practices, while excessive and unfair disciplinary practices may also weaken school climate. Research generally suggests that school climate is significantly associated with student delinquency and schools’ use of disciplinary practices. Schools with more positive, safe, and affirming climates experience lower levels of delinquency (Bryk and Driscoll 1988; Welsh 2000; Hoffmann and Xu 2002; Stewart 2003; Noguera 2007; Hoffmann and Dufur 2008; Freiberg and Lamb 2009; Way 2011; Burdick-Will 2013; Connell

2018) and reduced office referrals (Sprague et al. 2001). Furthermore, students in positive-climate schools are significantly less likely to receive punishments such as suspension (Kirk 2009), and schools characterized by positive climate indicators have significantly lower suspension rates (Gregory et al. 2011). It is understandable that these are related, considering that lower levels of delinquency should be associated with fewer disciplinary referrals or responses. Thus, it is generally understood that schools perceived as having more positive climates among school actors will experience lower levels of delinquency, violence, and utilization of disciplinary practices.

Much of the research examining associations between school climate and school disciplinary responses include discipline as the outcome variable, with the understanding that when school actors feel respected, safe, and supported at school, students will be less likely to misbehave, and teachers/administrators will be less reliant on disciplinary practices. However, scholars have noted that even as delinquency and violence in schools have decreased, schools' use of disciplinary practices such as suspension and expulsion have not followed suit (Losen et al. 2015), which presents a problem regarding the potential explanatory link between school climate and discipline. For instance, what happens when schools perceived as having positive climates use discipline in unfair or excessive ways? Does the unfair application and enforcement of discipline then alter school actors' perceptions of climate?

With these broad questions in mind, this study intends to examine the relationship between school climate and school disciplinary practices from the opposite perspective, utilizing perceptions of school climate as the outcome variable and school disciplinary procedures as the explanatory variable. The study's focus stems from research documenting the effects that inconsistent and excessive application of disciplinary practices have on school actors'

perceptions of fairness and feelings about the environment of their schools. In some schools, students report that school discipline is inconsistently applied due to staff discretion and favoritism (McNeal and Dunbar Jr. 2010) and punishments for misbehavior are often disproportionate to student infractions (Bracy 2011).<sup>1</sup>

The inconsistent and excessive nature by which discipline is applied arguably erodes students' sense of fairness at school, and according to Tyler and Trinkner (2017), makes consensual deference to school authority figures difficult because students come to view these authority figures as illegitimate. Furthermore, scholars have found that unfair enforcement of school rules results in students feeling alienated or powerless (Rafalides and Hoy 1971; Hoy 1972), where students become frustrated with the perceived lack of due process in punishment and learn to understand that the same rules do not apply to every student (Bracy 2011). Therefore, it is important to examine the effects that schools' disciplinary decisions have on student perceptions of school climate because harsh disciplinary philosophies may not have their intended effects and may ironically promote *increased* student misbehavior (Way 2011; Fissel et al. 2019). If students view authority as illegitimate and feel increasingly powerless due to inconsistent or excessive rule enforcement, it is possible that they will also rate their schools' climates less favorably.

This study is also interested in the effects of school disciplinary practices on teachers' perceptions of school climate. Like students, teachers are affected by schools' disciplinary philosophies and practices, and it is therefore important to examine how disciplinary practices impact teachers' perceptions of school climate as well. Teachers play an important role in facilitating positive school climates (Anderson 1982; Stewart 2003; Payne et al. 2003;

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<sup>1</sup> Despite the small sample sizes of these studies, they provide rich qualitative data about students' experiences with and perceptions of school discipline.



Gottfredson et al. 2005; Apel et al. 2009; Kupchik and Catlaw 2015) and perceive school climate in different ways than students. For instance, prior research includes indicators such as administrative leadership and organizational focus of schools when measuring teacher perceptions of school climate (Stewart 2003; Gottfredson et al. 2005).

Furthermore, research suggests that some teachers perceive the ways in which schools use discipline as rigid, unreasonable, and insulting of teachers' common sense (Fries and DeMitchell 2007). When teachers have little say in decision-making, especially regarding disciplinary decisions and rule enforcement, teachers feel increasingly powerless in their roles as educators (Cox and Wood 1980; Brooks et al. 2008). These findings have been validated by principals' reports that, in the post-Columbine era, "education is [not] our number one priority, it really has to be the safety and security of the school, the students, of the teachers and of the staff, and of our visitors" (Madfis 2016:45). Order and safety have therefore supplanted pedagogy in many schools, which has significant implications regarding teachers' perceptions of school climate. This is not to suggest that schools' disciplinary practices only have a negative impact on teachers' perceptions of climate (see Shearin Jr. 1982; Dworkin et al. 2003). However, when schools' primary focus is on discipline and disciplinary practices are excessively and inconsistently enforced, teachers may feel powerless in their positions as educators and rate their schools' climates less favorably.

Finally, this study is interested in the effects of schools' disciplinary decisions on perceived safety. Research suggests that students and teachers are more likely to feel safe while attending or working in schools with positive climates characterized by positive and supportive relationships among students and teachers (Metzler et al. 2001; Wilkins 2008) as well as lower levels of victimization and violent crime (Hong and Eamon 2012; Perumean-Chaney and Sutton

2013; Esselmont 2013; Burdick-Will 2013; Lacoë 2015; Gerlinger and Wo 2016). Additionally, students who feel safe at school are less likely to be involved in delinquent behavior (Hoffmann and Xu 2002; Hoffmann and Dufur 2008), which has implications for schools' use of punishment. Other research reveals that teachers report heightened perceptions of threat in more disordered schools characterized by delinquency and violence and that teachers generally fear violence in the form of mass or rampage shootings at school (Kupchik 2009; Madfis 2016).

Ideally, the ways that schools use disciplinary practices should promote a sense of increased safety at school because they are addressing delinquent or violent behavior in some fashion. However, when schools are inconsistent in the application of disciplinary practices or use such practices in excessive ways, there is a possibility that this may erode students' and/or teachers' sense of safety at school. For instance, research suggests that when school rules in general are consistently enforced, that students are more likely to feel safe at school (Mijanovich and Weitzman 2003; Hong and Eamon 2012). Other research particularly on school bullying suggests that when schools are consistent in disciplining student misbehavior and enforcing school rules, students are significantly less likely to be victims of bullying behavior (Gerlinger and Wo 2016). Teachers additionally report greater feelings of safety when schools focus on defining problem behaviors among students, incentivizing positive behavior, and supporting staff in implementing disciplinary strategies (Metzler et al. 2001). However, some research suggests that teachers' perceptions of safety are not significantly related to the severity of disciplinary action taken by schools (mild vs. punitive) (Welch and Payne 2010, 2012).

## HISTORICAL CONTEXT OF CURRENT RESEARCH

Since the mid-1990s, zero tolerance in American school discipline has received much attention and critique. Zero tolerance generally encapsulates policies and procedures that hand down punitive or “no nonsense” punishments such as suspension and expulsion for certain infractions, without the consideration of mitigating circumstances and leaving little room for discretion (Verdugo 2002; Mayer and Leone 2007; Kafka 2008). Much of the research regarding school discipline has focused on the legacy of zero tolerance, which officially gained traction in public schools with the passing of federal legislation in the mid-1990s (Casella, 2003; Verdugo, 2002). This research generally finds that zero tolerance discipline results in the over-punishment of minor infractions and disproportionate exclusion of racial minority students from school, as discussed in prior sections (American Psychological Association Zero Tolerance Task Force, 2008; Gregory et al., 2010; Skiba & Knesting, 2001; Verdugo, 2002).

While research on the legacy of zero tolerance is significant, there has been relatively little empirical scholarship examining the effects of school discipline prior to zero tolerance officially taking hold in American education. The most notable research prior to the implementation of zero tolerance was undertaken by the Children’s Defense Fund in 1975, which examined the effects of school suspensions among American public-school students. Notable findings from this report revealed that during this time period, schools were relying heavily on out-of-school suspensions, where in the 1972-73 school year, school districts that comprised about half of the student population “suspended over one million children...represent[ing] a loss of over four million school days and over 22,000 school years” (Children’s Defense Fund 1975:22). The overwhelming majority of these suspensions, which were often imposed in an arbitrary manner, were for nonviolent minor infractions where “less than 3 percent of the

suspensions were for destruction of property, the use of drugs or alcohol, or other criminal activity” (Children’s Defense Fund 1975:22).

Findings from the Children’s Defense Fund report highlight an important issue related to school discipline: the role of discretion. Until around the 1970s, school discipline was carried out in decentralized manner, where punishment decisions (and many school policies in general) were a responsibility of individual schools without significant district or state involvement (Kafka 2008). This meant that teachers and administrators had considerable discretion to discipline students in ways they deemed appropriate, often regardless of parental consent or approval (ibid.). Additionally, implicit biases held by teachers and administrators particularly concerning student race often influenced punishment decisions. This led to significant race gaps in school discipline, where in the mid 1970s, Black students were suspended at twice the rate of any other racial group in American public schools (Children’s Defense Fund 1975).

During the late 1960s, students, parents, and community members became increasingly vocal about the poor and unfair treatment of students in public schools on the basis of race and ethnicity, broadly criticizing the significant discretionary power of teachers and administrators. In Los Angeles, two school protests brought attention to such issues, the first of which occurred in 1967 at Manual Arts High School in South Los Angeles and the second occurring in 1968 in the East Los Angeles School District (Kafka 2008). At Manual Arts High School, Black parents and students with the support of the local NAACP protested the school’s principal, who was accused of using physical threats or coercion when implementing student discipline and generally mistreating Black students (ibid.). About half of the student body boycotted the school to pressure the removal of the school principal, who eventually resigned and secured a position at a different school (ibid.). In 1968, over 15,000 Mexican-American high school students in East

Los Angeles staged walkouts (known as the “Chicano blowouts”) to protest their unequal treatment on the basis of race and ethnicity, representing one of the largest student protests in American history (United Way Greater Los Angeles 2018a; Library of Congress n.d.). Students organized around a list of demands of the East Los Angeles school board, advocating for culturally competent education, more involvement of parents in schools, improving the structural conditions of school buildings, and changes to disciplinary policy that corporal punishment would only be administered according to state law and that only superintendents be allowed to suspend students (United Way Greater Los Angeles 2018b).

Despite some teachers supporting these protests, the majority of teachers and administrators were angered at the situation. In particular, Los Angeles educators were upset at the school board’s decision to grant amnesty to the students in the East Los Angeles walkouts and its willingness to consider the students’ demands (Kafka 2008). This eventually led to teachers “submit[ing] their own demands and petitions to the [school] board – seeking policy remedies for what they perceived had been a serious undermining of their authority” (Kafka 2008:258). Teachers implored the school board to create strict and punitive district level policies for punishing student misbehavior and asked for institutional support in the form of police and/or security guards in schools (ibid.). Interestingly, the teachers’ demands seemed somewhat contradictory. On the one hand, teachers wanted more centralized and standardized discipline policies enacted at the school district level “so that local educators felt supported and not burdened with the weight of making individual decisions each and every time they enacted discipline” (Kafka 2008:259). On the other hand, teachers still desired some level of individual discretion in rule enforcement and sought to have this discretion be affirmed by district level policies (ibid.). Thus, the 1960s-1970s was a significant period of unrest and transition as related

to school discipline policy, specifically focused on the role of discretion in the implementation of school discipline. Schools combating similar unrest as displayed in Los Angeles eventually jumped on the discipline centralization bandwagon, enacting district level discipline policies that limited teacher discretion while prescribing specific district-mandated rules for disciplinary action (Kafka 2008). By the mid 1970s, about three quarters of American school districts centralized their disciplinary frameworks and implemented policies at the district level (ibid.).

Additionally, the 1970s saw an increase in Supreme Court cases challenging the constitutionality of certain discipline practices such as suspension and corporal punishment (Adams 2000). In *Goss v. Lopez* (419 U.S. 565, 574 1975), the Supreme Court established that suspending students without a hearing violated the Due Process Clause of the Fourteenth Amendment, ruling that schools must provide oral or written notice of charges to a student facing a suspension and provide the student an opportunity to respond to those charges prior to removal (Swem 2017; 419 U.S. 565, 574 1975). In *Ingraham v. Wright* (430 U.S. 651 1977), the Supreme Court ruled that corporal punishment of children in public schools did not violate the Eighth Amendment's Cruel and Unusual Punishment Clause, even though Ingraham, a junior high school student who was one of two complainants in this case, received a paddling "so severe that he suffered a hematoma requiring medical intervention" (Wasserman 2011:1035). Additionally, the punishment in this case was "administered summarily, that is, without notice or a hearing" (Wasserman 2011:1035). *Goss* and *Ingraham* represented an interesting juxtaposition of Supreme Court legislation during this time period – one affirming students' challenging of arbitrary school discipline and the other affirming administrators' discretionary powers to use corporal punishment.

In the midst of the fight for discretionary power in school discipline decisions, schools in the 1980s were also affected by the “get tough” approach to crime and specifically drug offending during the War on Drugs (Beckett and Sasson 2005; Alexander 2010). The first use of the term “zero tolerance” can be traced back to the early 1980s in the context of anti-drug initiatives (Skiba and Knesting 2001; Verdugo 2002). Zero tolerance additionally became popularized in the early 1990s with the implementation of broken windows policing in New York City (Lamont-Hill 2016). The passing of the 1994 Gun-Free Schools Act arguably cemented zero tolerance approaches to discipline within American public schools, stipulating that any state receiving federal funds under the Elementary and Secondary Education Act of 1965 must enact state law requiring local schools to expel any student for at least one year upon determination that a student has brought a weapon to school (20 USC §7961). Initially, this federal legislation only mandated zero tolerance bans on firearms; however, most states eventually implemented zero tolerance for weapons generally, rather than firearms specifically (Skiba and Peterson 2000; Jones 2013). Thus, anything that may be construed as a weapon in a student’s possession may be met with severe and exclusionary punishment, even if the “weapon” is harmless. Schools have furthermore expanded this zero tolerance approach to minor misbehavior, responding to infractions like truancy, disrespect, and disruption with harsh and often exclusionary punishments like suspensions (Skiba and Knesting 2001; Verdugo 2002).

## SIGNIFICANCE OF STUDY

Tracing the history of school discipline policy throughout the mid-20<sup>th</sup> century has a specific purpose for this research. Between the 1960s and 1990s, school discipline policy in the United States underwent significant transformation, ultimately culminating with the cementation

of zero tolerance in the mid 1990s. During this transitional period, schools also wrestled with the role of discretion in school disciplinary decisions and were forced to address challenges to the constitutionality of certain disciplinary practices that were considered overreaching or arbitrary in nature. The age of the NELS data, collected between 1988 and 1992, is therefore a strength as it relates to this research, as most of the scholarship about school discipline and its effects between the 1960s and 1990s constitutes commentary, theoretical analysis, or law review, rather than empirical research. Empirical research conducted since the implementation of zero tolerance policies in schools has provided a wealth of information regarding the effects of school discipline in the 21<sup>st</sup> century. However, it is also worthwhile to examine whether school disciplinary strategies resulted in similar outcomes prior to the introduction of zero tolerance approaches to punishment.

Thus, this research is significant because it allows for an examination of the ways in which school disciplinary procedures impacted student and teacher perceptions of their school environments during a time where “zero tolerance” had only recently become a buzzword and not the fixture of American schooling that it is today (Skiba & Knesting, 2001; Verdugo, 2002). This research additionally quantifies school administrator discretion in disciplinary decisions, something that has not commonly been done in extant literature. It also provides an opportunity for replication by future research projects using a similar method and data from different time periods, that would allow for comparisons between past and current outcomes related to school discipline. By putting policy-related research in historical context, scholars may gain valuable insight regarding the ways in which policy-related outcomes have changed over time.



## STUDY RELEVANCE

In addition to providing historical context regarding the effects of school discipline on individual actors during a specific time period in American history, this study also has relevance for current issues related to American schooling. Students and teachers deserve to feel that their schools are secure, safe, fair, and positive places to be, especially considering that students are legally required to attend school and that school environments are where teachers have chosen to make their living. According to the CDC's Youth Risk Behavior Survey (2014), the percentage of students who missed school for at least one day in the previous month because they felt unsafe at school or on the way to school increased from 4.4% to 7.1% between 1993 and 2013. This is an intriguing finding, considering other research suggesting that youth violence both in general and at school has decreased steadily since the 1990s (Madfis 2016; Musu et al. 2019). These findings beg two important questions: 1. Why are more students feeling unsafe at school if schools have become less violent places? 2. How safe did students feel at school prior to the 1990s?

The practices by which schools have tried to achieve disciplined and positive environments have generally interfered with schools' goals of safety, security, and adequate education. Exclusionary discipline practices such as suspension and expulsion remove students from schools and interfere with educational progress (Raffaele-Mendez and Knoff 2003; Kim, Losen, and Hewitt 2010). Disciplinary practices that are applied excessively and inconsistently also do not promote feelings of safety and security at school, and even contribute to increased feelings of resentment among school actors (Noguera 2007; Fries and DeMitchell 2007; Kupchik 2009; McNeal and Dunbar Jr. 2010; Bracy 2011). Furthermore, Hilarski (2004) notes that many school disciplinary policies "are reactive, punitive, and disrupt the school's milieu by

disrespecting the students and creating school environments that expect and incite violent behaviors” (p. 172).

Most importantly, the reliance of schools on harsh disciplinary practices is keeping the school-to-prison pipeline alive. According to Kim et al. (2010), the school-to-prison pipeline represents “the intersection of a K-12 educational system and a juvenile justice system...result[ing] from the failure of public institutions to meet the social and developmental needs of a large segment of the children they are charged with serving” (p. 1). The school-to-prison pipeline symbolizes the ways in which schools often funnel youth into the juvenile justice system, either directly via arrest or indirectly by way of exclusionary discipline policies that remove students from school, place them on the street (often unsupervised), and interfere with their ability to complete their K-12 education (Kim et al. 2010; Morris 2015).

Though outside the scope of this study, it should be noted that the school-to-prison pipeline has steadily become shorter because many schools are now deferring directly to the criminal justice system to discipline students via arrest or citation (Fowler 2011; Nance 2015; Edelman 2017; French-Marcelin and Hinger 2017). According to Hirschfield (2008), many ordinary behaviors that occur at school among children have become criminalized, where behaviors that would ordinarily be dealt with by school discipline such as insubordination or truancy are now being dealt with by law enforcement and juvenile courts (Hirschfield 2008; Nance 2015; Morris 2016; Edelman 2017; French-Marcelin and Hinger 2017). Edelman (2017) conceptualizes this phenomenon as “skip the middle man” (p. 123), where some schools no longer take responsibility for disciplining students, but instead have law enforcement arrest children and send them to court. Other research documents instances of children as young as six or seven being arrested and taken away in handcuffs for disrupting the classroom or

insubordination (Fowler 2011; Nance 2015; French-Marcelin and Hinger 2017). At one time, South Carolina’s Disturbing Schools statute allowed students to be arrested, charged, and jailed for up to 90 days (if charged as adults) for minor infractions like talking back to a teacher (ACLU 2016; Scott 2018). And in places like Texas, children arrested at school for minor misbehavior may additionally be sent to adult criminal court (Fowler 2015; Edelman 2017).

It is important to recognize the ways in which school disciplinary decisions contribute to the school-to-prison pipeline. Even more important is recognizing the ways that schools could use disciplinary practices in ways that keep children in school as often as possible and in ways that promote positive school climates and increase perceptions of safety among school actors. This study therefore has significant policy implications especially for personnel who are responsible for creating and enforcing school disciplinary policy. Research clearly demonstrates that punitive frameworks like zero tolerance have not been successful and have not contributed to consistency in punishment nor positive student outcomes; and Raffaelle-Mendez and Knoff (2003) describe the contradictions that are prevalent in much school discipline policy:

One also might assume, given the frequency with which suspension is used, that it would result in almost immediate suppression of inappropriate behavior, improved prosocial behavior, and greater conformity and self-control upon a student’s return to school. Contrary to this assumption, the impact of school suspensions has been disappointing at best. Indeed, if a critical goal of suspension is to decrease future school suspensions, then this approach to “behavioral intervention” has failed. P. 32

Recognizing why these disciplinary styles have failed can provide opportunities to reevaluate school discipline policy and ensure that punishment is not unnecessarily harsh nor inconsistently applied.

## PURPOSE OF STUDY

The purpose of this study is to examine the impacts of school disciplinary decisions on student and teacher perceptions of school climate and safety during a specific time period in American history (1988-1992), using the first three waves of the National Education Longitudinal Study (NELS) of 1988. This research is a quantitative and longitudinal examination of the impact of school level processes (severity and consistency of discipline) on individual level outcomes (perceptions of climate and safety) among students and teachers. In addition, this study examines whether two theoretical constructs – perceived legitimacy of rules and subjective powerlessness – condition the effects of school discipline on individual perceptions of climate and safety.

While prior studies have found that student perceptions of rules and fairness of disciplinary practices are associated with lower levels of disorder, delinquency, and victimization (Gottfredson et al. 2005; Way 2011; Fissel et al. 2019), few studies have investigated the mechanisms by which schools' use of discipline impacts individual perceptions of school climate and safety. Furthermore, many of these studies have been cross-sectional in nature, therefore being unable to determine temporal ordering; and few studies have examined the effects of punishment consistency (most primarily focus on severity of punishment) nor have attempted to quantify disciplinary discretion. Finally, school discipline research largely neglects the impact of disciplinary procedures on teachers' experiences, who arguably play an important role in shaping

educational environments. Therefore, this study fills a gap in the literature, addressing several research questions:

1. How does the severity of school punishment decisions impact student and teacher perceptions of climate and safety?
2. How does the consistency of school punishment decisions impact student and teacher perceptions of climate and safety?
3. How do perceptions of legitimacy and powerlessness impact student and teacher perceptions of climate and safety?
4. Do perceptions of legitimacy and/or powerlessness condition the effects of school punishment decisions on student and teacher perceptions of climate and safety?

## STUDY ORGANIZATION

The remaining chapters are organized as follows. Chapter 2 discusses relevant literature that provide the foundation for this research. Chapter 3 explains the methodology and analytic plan for the study, describing the data source, research design, variable construction, and analytic strategies. Chapter 4 describes the results of the study for students, Chapter 5 describes the results of the study for teachers, and Chapter 6 discusses the study's findings and provides policy recommendations.

## CHAPTER II

### LITERATURE REVIEW

#### ZERO TOLERANCE DISCIPLINE

Zero tolerance has been the primary framework guiding school disciplinary policy since the early 1990s (Skiba and Knesting 2001; Casella 2003; American Psychological Association Zero Tolerance Task Force 2008). However, the idea of zero tolerance has been difficult to conceptualize, considering that “[t]here is no universally accepted definition of zero tolerance” (Mayer and Leone 2007:10). Generally, zero tolerance informs the ways in which disciplinary policies and procedures such as detention, suspension, and expulsion are applied to student misbehavior. According to Adams (2000), there are two major aspects of zero tolerance: detection, which includes the use of surveillance, security guards, police, metal detectors, and locker searches; and punishment, which includes the swift application of punishments automatically attached to specific misbehavior. The American Psychological Association Zero Tolerance Task Force (2008) describes zero tolerance as “a philosophy or policy that mandates the application of predetermined consequences, most often severe and punitive in nature, that are intended to be applied regardless of the gravity of behavior, mitigating circumstances, or situational context” (p. 852).

Theoretically, zero tolerance rests on the philosophy of deterrence, corresponding with Beccaria’s (1764/1963) principles of swiftness, certainty, and severity. Zero tolerance “assume[s] that removing students who engage in disruptive behavior will deter others from disruption...and create an improved climate for those students who remain” (American Psychological Association Zero Tolerance Task Force 2008:852). It also assumes that students

are rational, and their behavior is a product of free will (Brown and Esbensen 1988). Zero tolerance was designed initially to reduce discretion in the punishment of students, due to claims that students were being punished differently based on personal characteristics such as race (Kafka 2008). Thus, zero tolerance shifted focus from punishing students to punishing behaviors “based on uniform procedural and disciplinary guidelines evolving around the nature of the offense rather than the discretion of teachers and other disciplinary agents” (Hirschfield 2008:81-82). This shift in ideas about punishing behaviors rather than students theoretically coincides with the principle of certainty.

Zero tolerance also prescribes that punishments be handed down swiftly, where students being punished for certain behaviors should be removed from the classroom or school environment on the same day on which they misbehave (Dunbar Jr. and Villarruel 2002; Kupchik 2009; Bracy 2011; Losinski et al. 2014), ideally so that students associate misbehavior with punishment and will be deterred in the future. Finally, zero tolerance (at its inception) “was never meant to be the sole means of discipline in a school” (Casella 2003:874) but was part of a group of federal school violence prevention initiatives that focused on deterring major school crime mainly involving weapons and implementing more punitive forms of discipline (ibid.; Wolf and Kupchik 2017). Though the severity of discipline was increased through zero tolerance, the most severe punishments were supposed to be reserved for the most severe types of misbehavior, and any lesser infractions should have received proportional punishment responses.

Despite theoretically resting on the principles of deterrence, zero tolerance policies in practice often violate the principles of certainty and severity as Beccaria (1764/1963) envisioned (Skiba and Knesting 2001; Hirschfield 2008; French-Marcelin and Hinger 2017). Scholars have

routinely found that students are punished differently despite committing similar infractions (Edwards 2016; Wolf and Kupchik 2017) and that schools often over-punish minor misbehavior so that the punishment is not proportionate to the offense committed (McFadden et al. 1992; Skiba and Knesting 2001; Dunbar Jr. and Villarruel 2002; American Psychological Association Zero Tolerance Task Force 2008). For instance, McNeal and Dunbar Jr. (2010) found that among urban high school students, “there is a fundamental philosophical difference between what zero tolerance policy purports to accomplish and the actual policy outcome” (p. 301). Thus, while zero tolerance was theoretically designed to increase fairness in punishment and deter serious misbehavior, research on zero tolerance practice suggests that it is unfairly applied and excessively punitive (Skiba and Knesting 2001; Welch and Payne 2010; Wolf and Kupchik 2017). Punishing students differently when committing similar infractions as well as over-punishing certain misbehavior has significant implications for the legitimacy of disciplinary policy, as McFadden and colleagues (1992) aptly assert:

To the extent that firm, fair, and uniform practices of discipline and respect for both teachers and students may be implemented in policy and action, the more ably will schools deal with the issue of behavioral control of students. The more autocratic and punishing the school environment, the more all children, but particularly minority and poor children, are likely to be alienated from the learning environment. P. 145

Though not an explicit test of zero tolerance policy, this research examines disciplinary decisions that traditionally coincide with the zero tolerance philosophy such as suspension and expulsion. Furthermore, this research examines whether inconsistent and/or excessive disciplinary decisions significantly impact the way that school actors feel about their school environments.



The following sections of this chapter discuss research examining factors related to disciplinary practices and perceptions of school climate in American schools. I discuss issues associated with zero tolerance including racial disparities in punishment and the often inconsistent and excessive nature of school punishments. A second section reviews research related to perceptions of school climate, the measurement of those perceptions, and associations between school climate and discipline practices. A final section discusses the theoretical framework guiding this study: Tyler's (1990) concept of legitimacy and Seeman's (1959) subjective powerlessness dimension of alienation. The review concludes with a summary and critique of the related literature and a prelude to the next chapter.

## RACIAL DISPARITIES IN PUNISHMENT

Some of the most damaging effects of excessive school discipline have impacted students of color, particularly Black males (McFadden et al. 1992; Townsend 2000; Verdugo 2002; Raffaele-Mendez and Knoff 2003; Gregory, Skiba, and Noguera 2010; Edwards 2016; Pesta 2018). Research has continually found that Black students are disproportionately suspended, expelled, and given discipline referrals compared to White students (Gregory et al. 2010). Black males are at least twice as likely to receive a suspension than White males, and Black females are over three times as likely to receive a suspension than White females (Raffaele-Mendez and Knoff 2003). Furthermore, the increased likelihood of suspension for Black students begins in elementary school and persists across all grade levels (ibid.). Though Black students are significantly more likely to be punished (and punished more harshly) compared to White students (Edwards 2016), research has found that this disproportionality in punishment “cannot be explained solely by differences in delinquent behavior” (Nicholson-Crotty et al. 2009:1003).

Furthermore, these findings regarding the disproportionality in punishment have significant implications for future adult criminality. In a longitudinal analysis of 4,321 students, Pesta (2018) found that for Black students, harsh exclusionary discipline (being suspended and/or expelled) significantly increased the likelihood of engaging in adult criminality, while there were no significant relationships between exclusionary discipline and adult criminality for White or Hispanic students. Beyond the individual level, research also suggests that the racial composition of schools influences the salience of harsh disciplinary procedures, where schools with larger percentages of Black students are more likely to hand down punitive punishment and implement zero tolerance policies (Welch and Payne 2010, 2012; Edwards 2016).

While much of the research on the racially disparate effects of excessive school discipline focuses on Black students, some research suggests that Hispanic students are harmed by punitive discipline as well; however, findings are somewhat inconsistent (see Gregory et al. 2010; Morgan and Wright 2018). Like Black students, research has found that Hispanic students are disproportionately punished compared to White students (Verdugo 2002; Arcia 2007; Peguero and Shekarkhar 2011; Rodriguez 2013; Peguero et al. 2017; Pesta 2018). For instance, Peguero and Shekarkhar (2011) found that Hispanic students are more likely to be punished than White students even when there are no significant differences in misbehavior between each group. Hispanic students are additionally more likely to experience exclusionary discipline such as suspension or expulsion, which also increases the risk of school dropout for Hispanic students (Peguero et al. 2017; Pesta 2018). Despite experiencing lower likelihoods of punishment than Black students, Hispanic students also “have the highest rate of being transferred to another school for disciplinary problems” (Peguero et al. 2013:10).

Despite these findings, other research suggests that Hispanic students have a similar or lower likelihood of being suspended than White students (Krezmien, Leone, and Achilles 2006; Morgan and Wright 2018). Analyzing state reports of suspension and expulsions from 1995 to 2003, Krezmien et al. (2006) found that “[a]lthough the models predicted that [Hispanic] students were less likely to be suspended than White students, the proximity of the 95% confidence intervals to 1.0 for a number of the years limits the strength of this finding” (p. 220). This suggests that Hispanic students are either less likely to be suspended than White students or that their likelihoods of suspension are not significantly different.

Other inconsistencies in the Hispanic-White discipline disparity have been evidenced within the same study: among a sample of 9,725 8<sup>th</sup> grade students, Morgan and Wright (2018) found that prior to accounting for controls (model 1), Hispanic students were about 30% more likely to be suspended than White students, but net of controls such as gender, SES, and other school level influences (model 2), White students were 50% more likely to be suspended than Hispanic students. A third and final model adding what the authors deemed “a single, imperfect measure of child delinquency” (Morgan and Wright 2018:389), resulted in no significant disparities in suspension between Hispanic and White students. It appears that discrepancies regarding the Hispanic-White discipline gap may be methodological in nature, as the authors discuss the limitations of utilizing odds ratios in suspension rates: “[t]here is no reason to believe that rates of problem behavior are equal across all racial groups; thus, efforts to equalize suspensions by reducing the range of behaviors students can be suspended for may, inadvertently, increase estimated ORs” (ibid.:390).

While the literature on racial disparities in school punishment display more consistent findings for Black students than Hispanic students, the research generally suggests that

disparities in who gets punished and why exist at some basic level. Though a variety of possible explanations exist regarding these disparities, this study focuses on school level disparities in punishments relative to student infractions, examining whether excessive and/or inconsistent punishments erode students' and teachers' perceptions of school climate and safety. The next section reviews the literature on excessive and inconsistent punishments in the school context.

## EXCESSIVE AND INCONSISTENT PUNISHMENTS

The intent of zero tolerance is to provide a framework for increasing consistency and severity in disciplinary action. However, a significant body of research suggests that school punishments are often excessive but inconsistently applied to students (McFadden et al. 1992; Skiba and Knesting 2001; Raffaele-Mendez and Knoff 2003; American Psychological Association Zero Tolerance Task Force 2008; Peguero and Shekarkhar 2011). Some suggest that inconsistent applications of punishment and over-punishing are the result of a fundamental misunderstanding of zero tolerance among educators and administrators and “confusion about what constitute[s] a punishable offense” (Dunbar Jr. and Villarruel 2002:92). In terms of offense seriousness, research suggests that the threshold for severe punishment is routinely being lowered, resulting in a net-widening effect where more students are being punished for considerably less serious misbehavior (Skiba and Knesting 2001; Fowler 2011; French-Marcelin and Hinger 2017). For instance, the most common type of behavioral infractions associated with receiving a suspension are those that constitute defying authority or disobedience, actions that more reasonably would warrant a verbal warning or office referral (McFadden et al. 1992; Skiba and Knesting 2001; Raffaele-Mendez and Knoff 2003; French-Marcelin and Hinger 2017). Thus, the routine application of excessive punishments for minor misbehavior fails to accomplish

schools' desired deterrent effect because these punishments are overly severe (Beccaria 1764/1963; Brown and Esbensen 1988).

Much of the excessiveness of school punishment stems from what some call "The Columbine Effect" (Muschert and Peguero 2010; Muschert et al. 2013), defined as "the leveraging of anxiety about youth social problems in the expansion of school discipline, particularly punitive measures aimed at preventing extreme forms of violence" (Muschert and Madfis 2013:14). Since Columbine, many schools have heightened security measures and increased the severity of punishments as risk aversion measures, due to the perceived ever-present threat of school shootings (Madfis 2016). Perceived fear about serious school violence has led to over-punishing relatively minor acts that historically were viewed as childlike behavior, such as bringing toy guns or other toy weapons to school or simulating weapons with fingers or hands (Skiba and Knesting 2001; Madfis 2016). Generally, Columbine has fostered hypervigilance among school staff who believe "it's better to overreact...with widespread arrests, expulsions, and suspensions for minor disciplinary infractions" (Madfis 2016:49) than to underreact and potentially neglect a catastrophic event like a school shooting.

Though understanding the need for disciplinary punishment, some individuals view punishment as excessive relative to certain infractions (Skiba and Knesting 2001; Dunbar Jr. and Villarruel 2002; Fries and DeMitchell 2007; McNeal and Dunbar Jr. 2010; Bracy 2011; Gibson and Haight 2013). For instance, some principals feel that automatic suspensions for behaviors like shoving another student or bringing plastic toy guns to school are unnecessary and interfere with students' opportunities for educational attainment (Dunbar Jr. and Villarruel 2002), even though students have regularly been suspended, expelled, and even jailed for this type of behavior or less serious behavior (Skiba and Knesting 2001; French-Marcelin and Hinger 2017).

In Gibson and Haight's (2013) qualitative study of 30 lower income caregivers of Black children suspended from school, over half "characterized their children's suspensions as...disproportionate, undeserved, or inappropriate for the child's misdeed" (p. 266), even though the caregivers supported the application of *appropriate* consequences imposed by schools. Students have additionally reported feeling frustrated and discouraged when receiving excessively harsh punishments in relation to their infraction (Bracy 2011).

Students, teachers, and principals also report that punishment is routinely unfairly applied to student misbehavior and that inconsistency exists in the application of punishment. Students observe inconsistency in policy enforcement, noting that staff often show favoritism and let students get away with certain behaviors for which others would be punished (McNeal and Dunbar Jr. 2010; Bracy 2011). For instance, a student in McNeal and Dunbar Jr.'s (2010) study reported that during one school year, "a fellow freshman girl was found with a gun in her book bag. It belonged to a junior who was on the varsity football team. Both students should have been excluded for at least a year, but they both were let go with only a slap on the wrist" (p. 306). Through their focus groups with teachers, Fries and DeMitchell (2007) revealed that teachers do not have a clear understanding of what constitutes a weapon at school and therefore have trouble judging if, when, or how to administer punishment in certain contexts. Principals additionally struggle with consistency in the application of discipline because some students "don't have anywhere to go if we send them home...[and for others] [g]oing home often means they will be by themselves" (Dunbar Jr. and Villarruel 2002:99). Furthermore, Sughrue (2003) notes that some administrators feel that certain disciplinary policies insult their professionalism and expertise, leaving them powerless to use common sense in the application of punishment.

Taken together, school actors' experiences with excessive and inconsistent punishment suggest that in practice, many schools' disciplinary policies are flawed and often violate the tenets of deterrence theory they claim to uphold. Research further suggests that excessive and inconsistent punishments exacerbate student misbehavior and are counterproductive to school safety, primarily because harsh disciplinary climates weaken school actors' perceptions of fairness (Gottfredson and Gottfredson 1985; Bracy 2011; Way 2011). Therefore, the excessive and inconsistent application of punishment in schools not only has objective implications for student outcomes, but also has implications for perceptions of school climate and safety among students, teachers, and other school staff. The next section will address prior literature in these areas.

## SCHOOL CLIMATE

Research suggests that school discipline practices are closely associated with perceptions of school climate. School climate encompasses "beliefs, values, and attitudes that become the style of interaction between students, teachers, and administrators" (Welsh et al. 1999:74). School climate represents the general *feeling* of schools as social environments and can significantly impact student outcomes and teachers' experiences at their schools (Anderson 1982; Welsh 2000; McNulty-Eitle and Eitle 2004; Gottfredson et al. 2005; Gonzalez et al. 2014; Kupchik and Catlaw 2015). Generally, indicators of school climate pertain to school actors' perceived feelings of mutual trust, support, and respect; perceived feelings regarding schools' levels of spirit and/or cohesiveness; perceptions regarding the levels of disorder or discipline within schools; and perceptions of safety (Gottfredson 1986; Welsh 2000; Payne et al. 2003; Stewart 2003; Gottfredson et al. 2005; Hoffmann and Dufur 2008; Apel et al. 2009; Kirk 2009;

Way 2011; Gregory et al. 2011; Burdick-Will 2013; Kupchik and Catlaw 2015; Peguero et al. 2017).

Within the literature, conceptualizing school climate is consistent in terms of the items used to create constructs; however, scholars are not necessarily consistent in the naming of such constructs. For instance, similar items asking about student-teacher relationships, respect for students, and school spirit are conceptualized as “school attachment” in Stewart (2003); “morale” in Gottfredson et al. (2005); “school quality” in Hoffmann and Dufur (2008); “attachment to teachers” in Apel et al. (2009); “supportive school climate” in Gregory et al. (2011); and “school order” in Peguero et al. (2017). This suggests that as a concept, school climate can be measured as a single broad idea inclusive of a variety of indicators or measured by a variety of items differentiated based on certain factors.

Researchers have used school climate to explicitly examine the associations among school environments, delinquency, and punishment (Gottfredson 1986; Welsh et al. 1999; Welsh 2000; Stewart 2003; Hoffmann and Dufur 2008; Apel et al. 2009; Kirk 2009; Gregory et al. 2011; Way 2011). Generally, this research has concluded that schools with more positive climates “are better able to regulate students’ behavior and to resolve other school problems effectively” (Stewart et al. 2003:580), and school climate measures “appear highly relevant for explaining student offending and misconduct” (Welsh 2000:99).

When students feel respected, trusted, and supported by teachers, attached to their peers, and believe they have opportunities to constructively contribute to the school environment, they are less likely to misbehave and feel that their schools are overall more positive environments (Bryk and Driscoll 1988; Welsh 2000; Stewart 2003; Noguera 2007; Hoffmann and Dufur 2008; Freiberg and Lamb 2009; Way 2011). For instance, qualitative research suggests that students



feel their schools could be improved by cultivating positive student-teacher relationships characterized by mutual respect, and that schools could improve safety and discipline by increasing cooperation between administrators and teachers in dealing with disruptive students and “creat[ing] a panel of students to serve as a jury for students who break school rules” (Noguera 2007:208).<sup>2</sup> Other research suggests that students and teachers are better able to foster discipline by collectively establishing rules and practicing part of a classroom management model known as cooperative discipline<sup>3</sup> (Freiberg and Lamb 2009). School environments characterized by mutual respect, cooperation among staff and students, and where students feel they have a stake in creating rules arguably makes it more likely that these schools will be more orderly, safe, and enjoyable places for students.

Quantitative work suggests that a significant relationship exists between perceptions of school climate and student delinquency. Welsh’s (2000) cross-sectional study of about 6,500 students across 11 Philadelphia middle schools revealed that when students felt more respected at school, they were less likely to offend at school. Stewart’s (2003) cross-sectional analysis of 10,578 students in wave 2 of the National Education Longitudinal Study (NELS) revealed that students who had more positive perceptions of school climate (teacher-student relationships; peer relationships; school spirit) were significantly less likely to misbehave at school. However, it should be noted that Stewart (2003) conceptualized misbehavior by creating a composite of four items, two of which assessed student misconduct and two of which assessed whether students received punishment such as suspension. In a similar study, Hoffmann and Dufur (2008) revealed that students who rated their schools as being of higher quality were significantly less

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<sup>2</sup> This study was conducted via surveys and interviews with 132 high school students across 10 Boston schools.

<sup>3</sup> For more on this program, see Freiberg 1999.

likely to misbehave.<sup>4</sup> Furthermore, in a longitudinal analysis of over 10,000 students across over 1,000 schools, Way (2011) found that more positive teacher-student relationships had a significant negative relationship with classroom disruption, suggesting that students' perceptions of positive relationships with their teachers is an important factor in reducing student misbehavior.

Schools with more positive climates are also significantly less likely to hand down punishment for misbehavior (Welsh 2000; Kirk 2009; Gregory et al. 2011). For instance, when examining the relationship between students' perceptions of respect and punishment for misconduct,<sup>5</sup> Welsh (2000) found a significant negative relationship, suggesting that when students felt more respected, they were less likely to receive punishment at school. In a cross-sectional study of 7,047 6<sup>th</sup> and 8<sup>th</sup> grade students in Chicago, Kirk (2009) found that student-teacher trust had a significant and negative relationship with school suspension, "indicat[ing] that more trusting bonds between students and teachers are associated with a lower likelihood of suspension" (p. 503). Gregory et al.'s (2011) cross-sectional study of 9<sup>th</sup> grade students<sup>6</sup> across 199 Virginia high schools revealed that whether students felt their schools were supportive environments where teachers pushed students to succeed significantly impacted student suspension rates. The authors found that when schools were low on both perceived support of students (adults at school care about students, listen to students, respect students, etc.) and perceived academic press (teachers challenge students and push them to succeed at school), they

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<sup>4</sup> This study used common school climate indicators to conceptualize the measure labeled "school quality" dealing with teacher-student relationships, whether students enjoy school, and whether teachers can be trusted. However, like Stewart (2003), misbehavior was a composite of offending and punishment measures.

<sup>5</sup> Welsh (2000) termed this variable "misconduct." This was a composite variable consisting of 4 items: whether a student was sent out of class for punishment, had to stay after school for punishment, was suspended from school, or whether the student ever had to fight to protect themselves. Despite the inclusion of the fighting item, I would argue that this measure has merit as a "punishment" variable.

<sup>6</sup> Student sample size is unclear. The authors mention that schools had an average enrollment of 1,449 students with a range from 214 to 2,881.

had the highest suspension rates for both Black and White students, whereas “[i]f schools were high on support or academic press or both, they had lower rates of suspension for Black and White students” (p. 919). These findings therefore suggest that not only do perceptions of school climate matter for misbehavior, but they additionally have implications for schools’ administration of punishment.

Scholars have also conducted experimental studies evaluating the impact of programs aimed at improving school climate and behavior management as well as reducing delinquency and school disorder (Gottfredson 1986; Sprague et al. 2001; Metzler et al. 2001). These studies have evaluated both students’ and teachers’ perceptions of school climate and safety and are thus of importance to this research. These studies are discussed in detail below.

Project PATHE (Positive Action Through Holistic Education), implemented in Gottfredson’s (1986) experimental study in five middle schools (four treatment, one control) and four high schools (three treatment, one control) in South Carolina was “based on the idea that changes to the general school climate would be instrumental in bringing about the desired changes in student experiences and attitudes” (p. 708). PATHE implemented targeted strategies aimed at improving academic performance, school climate and disciplinary procedures, creating successful transitions to careers and/or postsecondary education, and supporting marginalized students (*ibid.*). School climate improvements involved conducting a school pride campaign aimed at improving the image of participating schools, expanding extra-curricular activities, and facilitating peer forums in which students could participate in constructive discourse focused on resolving interpersonal problems in a prosocial manner, while disciplinary improvements involved utilizing in-school alternatives to suspension (*ibid.*). Findings from this study revealed that students in treatment schools experienced fewer suspensions, reported less involvement in

delinquent activity, and felt safer than those in the control schools, through the mechanisms of improving both school climate and disciplinary practices. Gottfredson (1986) additionally measured aspects of school climate among teachers (morale and teacher-administration cooperation), both of which improved among treatment schools and worsened among control schools.

Sprague et al. (2001) examined the effects of the Effective Behavioral Support (EBS) Model, “a system of training, technical assistance, and evaluation of school discipline and climate” (p. 498) implemented as a one-year intervention among elementary and middle schools. EBS involves defining both problem and appropriate behaviors for students and staff; assisting students in making positive behavioral changes; incentivizing positive behavior; staff training in and feedback on the implementation of positive behavioral strategies; and systems for evaluating the effectiveness of EBS as an intervention (*ibid.*). Specifically, the authors investigated whether EBS improved the behavior of students measured as office discipline referrals. Findings revealed that compared to nonintervention schools, schools implementing EBS had greater reductions in office discipline referrals compared to schools that conducted business as usual. Furthermore, the authors conducted focus groups in both treatment and control schools, results of which revealed that control schools “reported a lack of comprehensive approaches for school-wide discipline” (Sprague et al. 2001:506-7), whereas treatment schools consistently used discipline procedures both school-wide and in classrooms. The authors additionally measured how EBS affected perceptions of school safety among teachers, however found no meaningful differences between treatment and control schools.

Metzler et al. (2001) additionally evaluated the effects of EBS during a one-year intervention and a one-year maintenance period among three middle schools in Oregon (one

treatment, two control). Findings from this study revealed that EBS had no significant effect on office referrals between the treatment and control schools. However, students in the treatment school experienced greater increases in positive reinforcement and perceived safety compared to the controls. The authors additionally evaluated teachers' perceptions of EBS implementation, findings of which indicated that "79%...agreed that the school was a safer place for students than the previous (baseline) year, and 86% agreed that student behavior had improved compared to the previous year" (Metzler et al. 2001:472). Furthermore, 100% of teachers agreed that recognizing students for good behavior positively impacted students' behavior (ibid.). Overall, the evaluations of PATHE and EBS therefore suggest that perceptions of school climate are closely linked with student behavior and discipline management, even though these studies were conducted among a limited sample of schools. Findings regarding perceived safety among schools that implemented the programs are of additional importance, as will be discussed in the next section.

### *School Safety*

Though sometimes included as a measure of school climate, this research examines the effects of school disciplinary procedures on perceived school safety as a separate measure. Students' perceptions of safety are generally measured by indicators of school disorder, such as delinquency, victimization, gang activity, and/or racial tensions (Hoffman and Xu 2002; Schreck and Miller 2003; Stewart 2003; Gottfredson et al. 2005; Apel et al. 2009; Peguero et al. 2017). Others have simply asked students to rate how safe they feel at school (Gottfredson 1986; Welsh 2000; Perumean-Chaney and Sutton 2013; Burdick-Will 2013; Esselmont 2013; Lacoé 2015; Connell 2018). In addition, research has gauged teachers' and school administrators' perceptions

of safety at school by asking respondents to rate how safe they feel in certain school areas (Gottfredson 1986) or to rate the level of disorder within their schools (Sprague, Smith, and Stieber 2002; Stewart 2003; Gottfredson et al. 2005; Hoffmann and Dufur 2008; Apel et al. 2009; Urick and Bowers 2011; Perumean-Chaney and Sutton 2013).

There are advantages to utilizing measures of perceived safety over proxy measures such as reported levels of school disorder or experiences with victimization.<sup>7</sup> Many of the proxy measures included in prior studies do not necessarily gauge how safe individuals feel at school. These measures rest on the implication that students or staff might feel less safe because they attend or work in more disordered schools characterized by increased delinquency and/or victimization. While this implication may be true (see Perumean-Chaney and Sutton 2013; Esselmont 2013; Lacoe 2015), others find that the link between disorder or crime and perceptions of safety is not always straightforward (Welsh 2000; Burdick-Will 2013). For instance, Burdick-Will (2013) suggests that though “[i]ncreased violent crime at school may undermine...perception[s] of safety...[s]tudents may not be using the incidence of violent crime at school as their only determinant of their safety” (p. 345). Therefore, individuals may not necessarily feel less safe at school simply because their schools have high violent crime rates (ibid.). Utilizing measures of perceived safety that explicitly ask respondents how safe they feel in certain environments are thus arguably better indicators because they measure the respondent’s subjective experience.

Generally, students are more likely to feel safe while attending schools with positive school climates characterized by positive peer and student-teacher relationships (Wilkins 2008). For instance, Wilkins’s (2008) qualitative study of students’ experiences transferring from a

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<sup>7</sup> However, perceptions of safety will only be used in the student models for this study, as the data do not include measures of perceived safety among teachers. Therefore, a proxy of school disorder will be used for teachers as has been done in prior literature.

regular school to an alternative school for students with special needs uncovered important insights regarding school climate, particularly the fact that “[s]tudents’ special needs [at the alternative school] served a bonding function, and also helped to create a warm and supportive environment...resulting in a close-knit school in which students felt comfortable and safe” (p. 18). Students have reported feeling unsafe at school primarily due to an excess of fighting or racial tensions that occur at school (Wilkins 2008), and “high violent crime rates at school are also an indication of conflict among students or between students and teachers, both of which may result in dysfunctional and disorderly classrooms” (Burdick-Will 2013:345). Research also suggests that students are more likely to carry weapons to school if they feel unsafe at school (Esselmont 2013). This finding has important implications for the relationship between perceived safety and disciplinary procedures such as suspension, considering that carrying a weapon to school may result in an automatic suspension or expulsion (Dunbar Jr. and Villarruel 2002; Casella 2003).

Research suggests that perceptions of safety at school vary according to both individual level and school level indicators (Welsh 2000; Stewart 2003; Kupchik and Ellis 2008; Wilkins 2008; Apel et al. 2009; Urick and Bowers 2011; Burdick-Will 2013; Perumean-Chaney and Sutton 2013; Peguero et al. 2017; Connell 2018). Generally, stronger perceptions of school safety are associated with more positive school climates, reduced delinquency, and more disciplined schools (Welsh 2000; Hoffmann and Xu 2002; Stewart 2003; Wilkins 2008). Perceptions of schools’ academic climate, for instance, are significantly impacted by perceptions of the level of disorder within schools (often a proxy for safety). In a cross-sectional analysis of 439 public school administrators in the Education Longitudinal Survey, Urick and Bowers (2011) found that principals have a more negative view of their school’s academic climate when

they believed that their schools experienced greater levels of disorder. Furthermore, teachers are significantly less likely to be victimized at schools when they feel that their schools have a higher degree of supportive and collaborative relations among faculty, administrators, and students, and that their schools have a greater degree of commonality concerning school goals and norms (Payne et al. 2003; Gottfredson et al. 2005). Though perceived safety and victimization are conceptually different measures, victimization experiences arguably affect feelings of safety, and are thus important to consider in relation to teachers' feelings about the climate of their schools.

Scholars have found that schools characterized by delinquency and violence have important implications for perceptions of school safety (Metzler et al. 2001; Hoffmann and Xu 2002; Burdick-Will 2013; Connell 2018). Hoffmann and Xu's (2002) multi-level cross-sectional analysis of 11,560 12<sup>th</sup> grade students revealed a significant negative relationship between perceptions of safety at school and involvement in delinquent behavior, suggesting that students who feel safe at school are less likely to be involved in delinquent behavior. Hoffmann and Dufur (2008) revealed similar findings among a sample of about 10,000 9<sup>th</sup> through 12<sup>th</sup> grade students. A potential explanation for these findings evidenced in other research is that students who feel unsafe may act out for fear of being victimized at school, as scholars have found that prior victimization results in a significant reduction in perceived school safety (Welsh 2000; Schreck and Miller 2003; Bachman, Randolph, and Brown 2011; Esselmont 2013; Connell 2018). Additionally, Gerlinger and Wo (2016) found that students in schools that fairly and consistently enforced rules were less likely to report being a victim of bullying, suggesting that consistent rule enforcement is an important protective factor against student victimization.



Perceptions of disorder among students about their schools may also affect perceptions of safety. Utilizing data including surveys, administrative student records and school data, and neighborhood crime and demographic data, Lacoë's (2015) study of about 900 New York City middle school students revealed that students reported feeling significantly less safe when a greater share of their peers reported that school disorder and racial tension existed at their schools. Furthermore, Perumean-Chaney and Sutton's (2013) longitudinal analysis of 13,386 middle and high school students from 130 schools revealed that when students reported feeling safe at school during a previous time period, they were significantly more likely to report feeling safe at school in the future. Programs to improve school climate may additionally have important effects in terms of improving feelings of school safety. In their evaluation of a program designed to improve school climate and promote positive student behavior,<sup>8</sup> Metzler et al. (2001) found that students and teachers in the treatment school reported greater feelings of safety after implementing the program, whereas similar improvements in safety were not reported among comparison schools.

Others have found that the ways in which schools enforce rules significantly impact students' perceptions of safety (Mijanovich and Weitzman 2003; Bachman et al. 2011; Hong and Eamon 2012). Utilizing data from the Survey of Adult and Youth, Mijanovich and Weitzman (2003) found among a sample of 2,768 students that when students agreed or strongly agreed that kids at their school could get away with almost anything, they were significantly more likely to report feeling unsafe at school. Students in Hong and Eamon's (2012) study (N=1,249) additionally had lower risks of perceiving their schools as unsafe when they reported that school rules were more likely to be enforced. These findings suggest that when school rules are not consistently enforced, that students may feel less safe at school. However, the effects of school

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<sup>8</sup> This program is described in detail in the school climate section of this review.

rule enforcement on perceptions of school safety appear to vary by student race. Utilizing the School Crime Supplement of the National Crime Victimization Survey, Bachman et al. (2011) found that when students felt that school rules were strictly enforced, only White students had a significantly lower probability of feeling fearful at school; and this effect was not significant for Black students.

Research also suggests that feelings of safety at school vary by age, gender, and race (Hong and Eamon 2012; Esselmont 2013; Perumean-Chaney and Sutton 2013; Lacoë 2015; Connell 2018). Findings regarding age are mixed. Esselmont's (2013) cross-sectional analysis of over 7,000 6<sup>th</sup> through 10<sup>th</sup> grade students found that feelings of safety at school were significantly less likely to increase with age. Hong and Eamon's (2012) cross-sectional study of 1,249 students also revealed that students had an increased risk of perceiving their schools as unsafe as they grew older. However, in a cross-sectional analysis of 3,073 high school students, Connell (2018) found that perceptions of safety were significantly more likely to *increase* with age. Furthermore, Perumean-Chaney and Sutton (2013) found that age did not have a significant relationship with perceptions of school safety in a longitudinal analysis of 13,386 7<sup>th</sup> through 12<sup>th</sup> grade students. However, Lacoë (2015) notes that "the share of students feelings unsafe peaks in the seventh and eighth grades...and the transition to high school might represent a change in feelings of safety at school and is a topic that warrants its own investigation" (p. 148).

Like age, findings regarding gender are mixed (Lacoë 2015). Investigating students' perceived fear of crime among a sample of 6,247 6<sup>th</sup> through 12<sup>th</sup> graders, Schreck and Miller (2003) found that males were significantly less fearful of victimization in five categories (theft, robbery, assault, multiple types, and any type) than females. However, Schreck and Miller (2003) did not distinguish between fear of crime at school or out of school. In the school context,

Perumean-Chaney and Sutton (2013) found that males were significantly more likely to feel safe at school than females; however, Hong and Eamon (2012) and Connell (2018) found the opposite. Others have found no significant differences in perceptions of safety at school between males and females (Mijanovich and Weitzman 2003; Bachman et al. 2011). Esselmont's (2013) study also yielded interesting findings regarding perceptions of school safety based on gender. On its own, gender was not significantly related to perceptions of safety at school (ibid.). However, by creating an interaction term between bullying victimization and gender, Esselmont (2013) found that the relationship between bullying victimization and perceived safety was significantly stronger for males than it was for females; suggesting that "bullying victimization leads to a greater decrease from average levels of perceived safety" (p. 223) for male students.

There are also differences in perceptions of safety by student race. Generally, scholars have found that Black and Hispanic students are more fearful of crime and feel less safe at school than students in other racial groups (Schreck and Miller 2003; Esselmont 2013; Perumean-Chaney and Sutton 2013; Lcoe 2015), with one explanation for this being that these students more often must traverse through higher-risk areas characterized by poverty, disorder, and/or crime to travel to and from school (Alvarez and Bachman 1997; Shedd 2015). This is evidenced by Schreck and Miller's (2003) study, revealing that in general (i.e. without differentiating in or out of school), Black students were significantly more fearful of robbery victimization than White students, and Hispanic students were significantly more fearful of all five victimization types (theft, robbery, assault, multiple types, and any type) than White students. Furthermore, others have found that Black students are more likely to attend schools with higher rates of violence, and "[w]ithin schools, increased violent crime rates [in one year] predict somewhat lower perceptions of safety in the following year" (Burdick-Will 2013:358).

In the school context, Lacoë (2015) found that both Black and Hispanic students were significantly less likely to report feeling safe at school than White and Asian students when these associations were examined as raw relationships. However, once certain characteristics were controlled for (i.e. individual, school, and neighborhood characteristics), only Black students remained feeling significantly less safe at school than their White and Asian peers, and there were no significant differences in reported safety between Hispanic and White or Asian students. Furthermore, “[r]acial gaps in safety exist between students who share the same schools...[where] Black students report feeling less safe compared to White and Asian students within the same schools” (p. 152). These findings suggest that even when controlling for a variety of characteristics, that Black students perceive the safety of their school environments much differently than their peers. Furthermore, White students not only feel significantly safer at school than Black students, but when White students report feeling safe at school at one point in time, it increases the likelihood that they will report feeling safe at school at a future point in time (Perumean-Chaney and Sutton 2013). However, some studies have found that there are no significant differences in perceptions of safety at school by student race (Mijanovich and Weitzman 2003; Bachman et al. 2011; Hong and Eamon 2012; Connell 2018).

Research has also revealed that the racial makeup of schools plays an important role in perceptions of safety, especially among teachers and administrators. Kupchik’s (2009) ethnographic research in four public high schools revealed that perceptions of threat among school staff “differ...in a way that corresponds to racial stereotypes” (p. 290). What Kupchik (2009) means by this is that though staff in each of the four schools were concerned about violence and disorder, staff in schools with larger populations of Black or Hispanic students had heightened concerns primarily informed by racial or ethnic stereotypes. Building off this

research, others have found that the proportion of Black students in a school is a significant predictor of whether schools use punitive disciplinary responses, signaling that Black students are perceived as a threat that must be controlled (Welch and Payne 2010, 2012).

Testing the racial threat hypothesis in 294 middle and high schools, Welch and Payne (2010) found that schools with greater percentages of Black students are significantly more likely to rely on punitive disciplinary responses such as expulsions and suspensions and are significantly less likely to use milder forms of discipline such as counselor visits or oral reprimands. Welch and Payne's (2012) study revealed similar findings, however they also found that schools with greater percentages of Hispanic students were significantly more likely to use expulsion. These findings have further been confirmed by Edwards (2016), who found that "[a]ttending a school with the highest proportion of [B]lack students (75-100 percent) appears to significantly increase the odds of experiencing a suspension or expulsion, by about 75 percent, compared to a school with only 0-25 [B]lack students" (p. 68).

Perceptions of school safety among teachers, administrators, and other staff are also important to consider regardless of schools' racial makeup. Through in-depth interviews with 65 school staff (26 administrators, 10 counselors, 16 security/school resource officers, and 13 teachers), Madfis (2016) revealed that school staff generally fear violence in the form of mass or rampage shootings at school, and that "risk perception of school rampage has vastly increased since the turn of the 21<sup>st</sup> century" (p. 47). Madfis (2016) suggests that this is likely because rampage violence has gained nationwide attention since Columbine and that mass shootings have become constructed as universal threats that could potentially occur in any school at any time. Kupchik (2009) additionally found that school staff generally feared "Columbine-like incidents" (p. 299). Interestingly, however, quantitative studies suggest that teachers' perceptions of safety

are not significantly related to the severity of disciplinary action taken by schools, as evidenced by Welch and Payne's (2010, 2012) studies, which found that teachers' perceived lack of safety at school had no significant relationships with discipline, whether punitive or mild.

Overall, the literature provides support for associations among perceived school climate, perceived school safety, student delinquency, and schools' use of punishment. Reasons why these associations exist have primarily been attributed to deterrence theory and control theories (Gottfredson 1986; Welsh et al. 1999; Welsh 2000; Hoffmann and Xu 2002; Stewart 2003; Apel et al. 2009; Way 2011). However, in this research I examine whether the relationship between schools' use of disciplinary practices and perceptions of climate and safety among school actors are moderated by school actors' perceived legitimacy of school rules and their perceived feelings of powerlessness. Theoretically, schools' use of disciplinary practices may have differing effects on students and teachers depending on whether they view school discipline as legitimate and the degree to which they feel powerless in the school setting. I discuss these theoretical concepts in the next section.

## THEORETICAL FRAMEWORK

A significant body of literature has examined perceptions of school climate and school safety among students, teachers, and school administrators. However, there exists a gap in the literature specifically in terms of how schools' use of disciplinary procedures impacts the perceived legitimacy of school rules and feelings of alienation, which may therefore impact perceptions of safety and climate among school actors. As such, this study will fill this gap by examining whether perceptions of climate and safety are moderated by perceptions of discipline as legitimate and the degree to which school actors feel powerless, depending on schools' use of

certain disciplinary procedures. To do this, I use Tyler's (1990) concept of legitimacy and Seeman's (1959) subjective powerlessness dimension of alienation.

### *Legitimacy*

Legitimacy plays a central role in why people behave the way they do, and particularly, why they obey rules and laws (Tyler 1990). When people view authority figures and the rules (or laws) as fair and just, "they are less likely to break any laws, for they will believe that they ought to follow them, regardless of the potential for punishment" (Tyler 1990:4). Thus, when members of a community view authority figures as legitimate, they "believe that their authorities "deserve" to rule and make decisions that influence the outcomes of members of the community" (Tyler et al. 2007:10). Legitimacy furthermore contributes to the voluntary adherence to rules and laws even when authority figures are not present (ibid.).

Studies of legitimacy have primarily centered on citizens' perceptions of police and the law (Tyler 1988, 1990; LaFree 1998; Tyler and Huo 2002; Sunshine and Tyler 2003; Tyler and Fagan 2008; Fagan 2008; Kirk and Papachristos 2011; Lee et al. 2011). As Sunshine and Tyler (2003) note, "[a] wide body of research makes clear that people's reactions to their personal experiences with police are shaped by their evaluations of the fairness of the procedures the police use to exercise their authority" (p. 519). This phenomenon is often conceptualized as procedural justice, defined as perceptions of the fairness of the procedures that police and courts use to exercise their authority (Tyler 2003). Thus, perceived fairness of the actions of authoritative figures is an important factor in whether individuals view authority figures as legitimate.

Though legitimacy is commonly examined in the context of police-citizen relationships, there is every reason to believe the same process would hold true in the context of education. Because schools are institutions with the authority to discipline and punish, they play an important role in the legal socialization of children (Tyler and Trinkner 2017). In their book *Why Children Follow Rules*, Tyler and Trinkner (2017) argue that in schools, “authority can be exercised in different ways that can either support or undermine the formation of attitudes and legal values, as well as communicate either positive or negative views about authorities and institutions” (p. 9). How schools utilize authority to discipline and punish therefore plays an important role in the formation of children’s attitudes regarding rule compliance, because “[c]hildren come to believe that they ought to obey authority when it *acts* in ways that give it legitimacy” (Tyler and Trinkner 2017:11).

According to Tyler and Trinkner (2017), ensuring people view authority as legitimate involves “making decisions in ways people experience as being fair...treating people fairly...[and] recognizing the boundaries of authority and supporting the idea of individual autonomy” (pp. 10-11). Doing so sets the foundation for consensual deference to authority whereby people do not need to be *forced* to obey rules; they simply do so because they perceive of authority as legitimate (ibid.). However, school climate research particularly concerning school discipline suggests that many schools have trouble laying the foundation for consensual deference to authority because they inconsistently apply disciplinary procedures and undermine perceptions of fairness at school, resulting in difficulties reducing misbehavior (Bracy 2011; Tyler and Trinkner 2017; Fissel, Wilcox, and Tillyer 2019).

Though not termed “legitimacy” per se in the school climate literature, scholars have measured perceptions of rules and discipline policies as fair among school actors (Schreck and



Miller 2003; Kupchik and Ellis 2008; Way 2011; Gregory et al. 2011; Lacoë 2015; Peguero et al. 2017; Fissel et al. 2019). Both Schreck and Miller (2003) and Kupchik and Ellis (2008) asked students to record their level of agreement with statements such as: “school rules are fair...everyone knows what the school rules are...if a school rule is broken, students know what kind of punishment will follow...[and] the punishment for breaking school rules is the same no matter who you are” (p. 560). Gregory et al. (2011) used the same indicators and additionally asked students to rate how strictly they believed rules were enforced at their school; and Peguero et al. (2017) also used these indicators to measure student perceptions of justice, fairness, and general understanding of school rules among Hispanic and White students.

Others have measured perceived fairness of discipline by asking students to report the share of their peers who believe that school discipline is unfair (Lacoë 2015) and by asking students to indicate whether they believe school principals are fair and how strict principals act at school (Gottfredson et al. 2005). Recently, Fissel et al. (2019) conceptualized perceived discipline fairness as “perceived injustice,” a sum of eight items asking students to rate the extent to which they agreed with statements such as: all students are treated fairly, the school rules are fair, punishment for breaking rules is the same no matter who you are, and students know what type of punishment will follow if a school rule is broken. Notably, Way (2011) teased out legitimacy and fairness by utilizing two different measures including “student attitudes toward the legitimacy of school-based authority” (p. 354) in addition to a measure of students’ perceived fairness of discipline. Perceived fairness of discipline was measured by student responses to the statement that “discipline is fair,” while legitimacy of authority was a composite measure of responses to how often students believe it is acceptable to talk back to teacher and disobey school rules (ibid.). Indicators such as these provide more nuanced insight into students’

perceptions of school climate by specifically collecting responses about perceived fairness of discipline as opposed to the general fairness, organization, or level of support of the school environment.

Both quantitative and qualitative research suggest that students have differing perceptions of the fairness of discipline at their schools. Findings from qualitative work have been particularly rich, suggesting that teachers and administrators still use discretion in biased ways. For instance, McNeal and Dunbar Jr.'s (2010) interviews and focus groups with 90 urban high school students in the Midwest revealed statements supporting that school discipline is inconsistently applied primarily due to staff discretion and favoritism: "student statements convey a school environment riddled with double standards applying...sanctions based on school staffs' personal relationships with the student" (p. 305). Student responses clearly indicated that school discipline policy was not enforced fairly and allowed certain students to get away with misbehavior (*ibid.*). Students in Bracy's (2011) study concurred that rule enforcement at their schools was inconsistent and that punishments for misbehavior were often disproportionate to the infractions committed, leaving them feeling alienated and hopeless.

Furthermore, Kupchik's (2009) ethnographic research revealed that in some instances, school disciplinary rules are given priority over important educational or personal issues that students may be experiencing and do not address the root problems of students' misbehavior, which negatively impact students' feelings about the integrity of their schools. While students recognize that safety and order are important to the school environment; when asked what it would take to achieve order and safety, students suggest alternative disciplinary approaches to common punitive measures such as: giving disruptive students extra academic work; making disrespectful students apologize to teachers and do community service; having a panel of peers

decide the punishment for misbehaving students; and understanding why students misbehave prior to punishing them (Noguera 2007). These findings suggest that students may perceive school disciplinary policies as more legitimate if they had a greater stake in creating such policy. Freiberg and Lamb (2009) furthermore note that assigning punishment without allowing students to reflect on their behavior or take responsibility for their actions hinders students' achievement of self-discipline.

Perceived fairness of discipline additionally varies among parents, teachers, and school principals. Among these actors, the ways in which schools use disciplinary procedures often presents a conundrum. On the one hand, parents, teachers, and principals are all concerned with student safety and value discipline (Insley 2001; Brady 2002; Sprague et al. 2002; Friedman, Bobrowski, and Geraci 2006; Gibson and Haight 2013; Skiba 2014; Ewton 2014). For instance, some teachers and principals feel that more punitive disciplinary philosophies such as zero tolerance make punishment easy by setting specific standards for specific behavior (Dunbar Jr. and Villarruel 2002; Sughrue 2003) and allows teachers to feel supported when making disciplinary decisions (Fries and DeMitchell 2007). Additionally, many parents, teachers, and administrators who are concerned with serious school violence incidents such as Columbine have welcomed schools' heightened focus on discipline and safety by adopting punitive approaches to punishment (Kupchik 2009; Ewton 2014; Madfis 2016).

On the other hand, both scholarly literature and news reporting have documented the excessive nature of much school discipline, often creating situations where punishment outweighs student misconduct (Keleher 2000; Browne, Losen, and Wald 2001; Skiba and Knesting 2001; Sughrue 2003; French-Marcelin and Hinger 2017). For instance, Sughrue (2003) notes that "concern has mounted that application of these policies sometimes results in

inequitable and nonsensical treatment of children” (p. 238). The excessive nature of the responses to student misconduct may additionally stem from the fact that “some principals consider zero-tolerance policy in every act of behavior by children...whether it pose[s] a real danger to the school or not” (Dunbar Jr. and Villarruel 2002:92). This philosophy of punishment therefore erodes students’ sense of fairness and makes consensual deference to authority difficult because students arguably come to view school authorities as illegitimate (Tyler and Trinkner 2017).

Concerns have also been raised among parents, teachers, and principals regarding documented evidence that the harsh disciplinary frameworks such as zero tolerance are often “misuse[d] and abuse[d]...for incidents that were not meant to be covered under [the policy]” (Martinez 2009:154). This is primarily because zero tolerance does not allow for the consideration of mitigating circumstances when administering punishment (Verdugo 2002; Mayer and Leone 2007; Kafka 2008). As a result, concern exists among parents regarding appropriate disciplinary procedures, many of whom feel that the punishments their children receive are disproportionate to their children’s misbehavior (Tebo 2000; Kupchik 2009; Gibson and Haight 2013). Some of this concern is arguably appropriate, considering that in many places across the U.S., schools have begun giving students citations or even arresting students for certain behavior not inherently dangerous nor illegal (Skiba and Knesting 2001; Fowler 2011; Edelman 2017; French-Marcelin and Hinger 2017). In certain instances, teachers have commented on the rigidity of zero tolerance, many agreeing that it is an unreasonable disciplinary framework that “takes away the common sense aspect of life” (Fries and DeMitchell 2007:223). Some principals have additionally revealed that sometimes teachers will “exercise zero tolerance for anything” (Dunbar Jr. and Villarruel 2002:96), suggesting an awareness that in

some cases teachers hand down discipline when it is not appropriate. Finally, other principals are conflicted when it comes to punishing students under zero tolerance, some of whom believe that the most appropriate place for children is in school and that excluding children is not an effective method of discipline (ibid.).

In addition to concerns over excessiveness, others have raised concerns over the inconsistency in the application of punishment. Some of this concern stems from perceptions among parents and teachers that discipline policy within schools is poorly defined (Sprague et al. 2001). Other concerns primarily stem from parents' concerns about the racial disproportionality in punishment that has been regularly documented in prior literature (McFadden et al. 1992; Townsend 2000; Verdugo 2002; Raffaele-Mendez and Knoff 2003; Gregory et al. 2010; Welch and Payne 2010, 2012; Edwards 2016; Pesta 2018). For instance, Thompson's (2003) study of 129 Black parents and guardians of urban students in 11 California school districts revealed that over half believed that racism existed in their children's schools, and "nearly 40% of the parents and guardians whose children had experienced racism said that adults...were the culprits" (p. 12). Furthermore, this perception regarding racism was a significant predictor of student suspension, where "parents and guardians who believed that racism was common in the school district were also likely to have children who had been suspended" (Thompson 2003:14). Parents and caregivers in Gibson and Haight's (2013) study reaffirmed this sentiment, many of whom expressed beliefs that race plays a major role in school suspensions. Other research suggests that inconsistencies in the application of punishment by teachers result in part from variations in teachers' personal perceptions of fairness (Fries and DeMitchell 2007) and negative stereotypes particularly about Black students that strain interpersonal relationships between teachers and

students and either explicitly or implicitly result in the inconsistent application of punishment (Okonofua, Walton, and Eberhardt 2016).

Statements from students, caregivers, and school staff regarding a lack of perceived fairness in the implementation of discipline only confirm what scholars have found quantitatively. According to Gregory et al. (2011), “[t]he consistently higher rate of suspension among Black students suggests that, within the same...school, Black and White students have divergent experiences of the discipline system” (p. 923), perhaps not surprisingly given that student perceptions of climate have been found to be significantly weaker among schools with a greater proportion of racial minority students (Stewart 2003; Gottfredson et al. 2005). This is further supported by research findings that Black students perceive school rules as significantly less fair than White students (Kupchik and Ellis 2008). Analyzing a sample of over 8,000 students who responded to the National Crime Victimization Survey School Crime Supplement, Kupchik and Ellis (2008) found that Black students gave significantly lower ratings than Whites for an overall scale of perceived school rules and punishment<sup>9</sup> in addition to significantly lower ratings to a single item about whether school rules were fair, a finding the authors noted was “not surprising, given the previous research showing that school punishments are disproportionately directed at [Black] youth” (p. 561).

Findings regarding Hispanic students are mixed. Kupchik and Ellis (2008) found that perceptions of overall rule fairness and punishment fairness among Hispanic students were not significantly different than White students; and Peguero et al. (2017) additionally found the same when comparing Latino and White boys. However, Peguero et al.’s (2017) study of 1,800 Hispanic and 6,300 White students in over 500 public schools revealed that Latina girls have

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<sup>9</sup> This measure was a summed scale of responses to four items, providing an overview of students’ perceptions of rule knowledge, rule fairness, even application of punishment, and knowledge of punishment. In addition to analyzing the summary measure, the authors also analyzed each individual item (Kupchik and Ellis 2008).

significantly higher ratings of school justice and fairness compared to White girls, showing that compared to White girls, Latina girls feel more strongly that their schools' rules are fair and that punishment for breaking school rules is applied equitably. This is an interesting finding considering that in this same study, Latina girls were punished significantly more often than White girls (*ibid.*).

Perceptions of discipline fairness additionally have implications for how safe students feel at school. Utilizing the National Household Education Survey, Schreck and Miller's (2003) study of over 6,000 middle and high school students revealed that perceptions of rule fairness significantly predicted students' worry about being victims of crime. As students perceived rules to be more unfair, they were also significantly more likely to worry about being victims of crimes such as theft and robbery (*ibid.*). However, Schreck and Miller (2003) made no distinction between being a victim of crime at school or outside of school. Others have found that perceptions of discipline fairness among peers also plays an important role regarding perceived safety at school (Lacoe 2015). Utilizing data including surveys, administrative student records and school data, and neighborhood crime and demographic data, Lacoe's (2015) study of about 900 students and their perceptions of school safety revealed that students reported feeling significantly less safe at school when there was an increase in the share of their peers who viewed discipline as unfair.

Perceptions of the fairness of school discipline also have implications for misbehavior and punishment. Research has found that when students perceive disciplinary practices as fair and consistent, schools report lower rates of misconduct, delinquency, and/or victimization (Gottfredson and Gottfredson 1985; Mayer and Leone 1999; Welsh et al. 1999; Welsh 2000, 2001, 2003; Hoffmann and Dufur 2008; Gregory et al. 2011; Gottfredson, Cook, and Na 2012;

Fissel et al. 2019). In their study of school climate predictors of school disorder, Gottfredson et al. (2005) found that schools where students perceived greater fairness and clarity of rules experienced lower levels of student delinquency involving offenses against persons and property. Utilizing longitudinal data, Fissel et al. (2019) confirmed Gottfredson et al.'s (2005) findings, revealing that at the individual level, students who rated higher on a perceived injustice scale regarding school discipline fairness were also significantly more likely to be involved in delinquent behavior at school. Among a sample of about 7,000 Philadelphia middle school students, Welsh et al. (1999) found that students with greater belief in conventional school rules were less likely to receive punishment for misconduct, and Welsh (2000) (using the same data as Welsh et al. 1999) found fairness of rules to be a significant predictor of reduced disciplinary punishment experienced by students. Furthermore, highly supportive school environments characterized by fair rules and respect for students have corresponded significantly with reduced delinquency (Hoffmann and Dufur 2008) and lower suspension rates (Gregory et al. 2011).

Though Fissel et al. (2019) describe it as a notable exception in the literature on student perceptions of justice,<sup>10</sup> Way's (2011) multilevel analysis utilizing waves 1 and 2 of NELS data revealed important findings specifically for this research. Utilizing a sample of 10,992 students in 1,132 schools, Way (2011) examined the relationship between student perceptions of their schools' discipline, specific school discipline practices, and classroom disruption among students. Measures of interest in this study included strictness of rules (degree of belief that school rules for behavior are strict according to students); fairness of discipline (is discipline

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<sup>10</sup> The authors deemed this study an exception primarily due to the finding that schools in which students perceive of school rules as increasingly strict had an increased likelihood of classroom disruption, contrary to predictions based on deterrence theory. However, I would argue that even strict rules can be fair, transparent, and consistently applied. Regardless of strictness, the *application* of rules and punishment and their perceived legitimacy have important implications for school actors' perceptions of climate and safety. See Apel et al. (2009) for findings pertaining to the lack of significance of the relationship between perceptions of rule strictness and school disciplinary outcomes.



fair); and legitimacy of authority (how often students think it is okay to talk back to teachers and disobey school rules). First examining the individual effect of rule strictness, Way (2011) found that as students perceived school rules as increasingly strict, that they had higher classroom disruption scores, a finding not originally anticipated. However, other findings revealed that both fairness of discipline and legitimacy of authority had significant negative effects on classroom disruptions, “indicating that students who perceived rules to be more fair ( $b = -.045$ ,  $p < .01$ ) and had stronger beliefs that it is not okay to disobey teacher and school rules ( $b = -.098$ ,  $p < .001$ ) had lower classroom disruption scores” (Way 2011:361). Furthermore, the coefficient for perceived strictness of rules decreased when the fairness and legitimacy variables were added to the model, “suggest[ing] that students who perceived discipline as strict were more disruptive, at least partially, because they considered strict rules to be unfair or illegitimate” (Way 2011:361).

### *Powerlessness*

The other theoretical concept guiding this study is Seeman’s (1959) subjective powerlessness dimension of alienation. Seeman (1959) defined powerlessness as a “variant of alienation...conceived as the expectancy or probability held by the individual that his own behavior cannot determine the occurrence of the outcomes, or reinforcements, he seeks” (p. 784). Subjective powerlessness is one of five specific dimensions of alienation, the others including meaninglessness, normlessness, isolation, and self-estrangement (ibid.). Regarding subjective powerlessness, Seeman (1959) specified that this dimension of alienation differed from Marx’s notion of alienation in that a person’s expectations regarding the control of their life is “distinguished from (a) the objective situation of powerlessness as some observer sees it, (b) the observer’s judgment of that situation against some ethical standard, and (c) the individual’s sense

of a discrepancy between his expectations for control and his desire for control” (p. 784). This subjective dimension of powerlessness therefore relies on individuals’ perceptions about their lives as opposed to an objective measurement such as their relationship to the means of production as Marx argued (Seeman 1959; Fischer 1973).

Rotter (1966) was one of the first scholars to measure subjective powerlessness in the psychological literature. Conceptualized as the internal-external scale, Rotter (1966) noted that “[t]he concept of alienation which has played an important role in sociological theory for many years does seem related at a group level to the variable of internal-external control. The alienated individual feels unable to control his own destiny” (p. 3). This scale was a 29-item construct including items such as: “I have often found that what is going to happen will happen,” “It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow,” “Many times I feel that I have little influence over the things that happen to me,” and “Sometimes I feel that I don’t have enough control over the direction that my life is taking” (Rotter 1966:11-12). Later, Kolesar (1967) developed an instrument designed to specifically measure students’ sense of alienation, named the Pupil Attitude Questionnaire (PAQ), a 60-item instrument that asked students similar questions to items in Rotter’s (1966) construct. Drawing on Seeman’s (1959) ideas, Rotter (1966) and Kolesar (1967) created constructs that allowed for the measurement of individuals’ subjective perceptions of how much control they believed they had over their lives (and over their lives in the school context).

Noting that little was known about the distribution of subjective powerlessness across populations, Fischer (1973) later examined the associations between urbanism and alienation in part by constructing a measure of subjective powerlessness (termed specifically as the Personal Competence Scale) and analyzing how it interacted with place. This measure was constructed

with items from the 1968 Survey Research Center Election Poll,<sup>11</sup> where survey items asked respondents about whether they thought life was a matter of chance or luck (making it meaningless to plan ahead); if respondents did make plans, are they carried out as expected or does something come up to change those plans; whether respondents have felt sure that life would work out as they wanted or if there were times where they were not sure; and whether respondents felt they could control their lives as they wanted (*ibid.*). Responses for the items ranged from efficacious on the low end to powerless on the high end, where higher scores indicated greater feelings of powerlessness (*ibid.*).

While the primary outcomes of Rotter's (1966) and Fischer's (1973) studies are not of concern for this research, their constructions of subjective powerlessness have important implications for the theoretical and methodological basis of this study. A significant body of research has identified the effects of subjective powerlessness in educational environments among students, teachers, and administrators (Rafalides and Hoy 1971; Hoy 1972; Cox and Wood 1980; Newmann 1981; Shearin Jr. 1982; Zielinski and Hoy 1983; Dworkin, Saha, and Hill 2003; Brown, Higgins, and Paulsen 2003; Brooks, Hughes, and Brooks 2008). These studies often cite Seeman's (1959) conceptualization of alienation, noting its five specific dimensions.

Scholarly investigations of student alienation from school began in the early 1950s and remained popular through the 1970s (Rafalides and Hoy 1971; Liazos 1978; Newmann 1981; Brown et al. 2003), where many scholars found that alienation was related to student outcomes (Brown et al. 2003). Citing Seeman's (1959) ideas, scholars have generally argued that student alienation could be reduced if students attended schools with clear and consistent goals where rules were fairly enforced, where students could contribute to school policy formation and

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<sup>11</sup> Fischer constructed another powerlessness scale utilizing two items from the Survey Research Center Election Poll and two items from the 1971 Income Dynamics Survey. The items from the Income Dynamics Survey are not applicable to this current research, and as such are not discussed.

implementation, and where students have supportive and trusting relationships with teachers and other students (Newmann 1981). Not surprisingly, these aspects of inclusive school environments would come to inform the school climate literature (Hoy 1972).

Rafalides and Hoy (1971) investigated alienation as it applied to the school context. Among a sample of 45 high schools, the authors examined the relationship between pupil control and student alienation, hypothesizing that in schools that exercise more rigid or autocratic forms of pupil control according to teacher responses, students will experience a greater sense of powerlessness (*ibid.*). Despite only examining bivariate relationships, Rafalides and Hoy (1971) found support for their hypothesis, where the more rigid the pupil control, the more powerless students felt ( $r = .35, p < .01$ ). Extending this work, Shearin Jr. (1982) examined the extent to which teachers agreed on what the pupil control ideology of their schools was and what effects this had on student alienation. He hypothesized that what mattered for student alienation was *consensus* in the ideology regarding pupil control, not simply whether schools imposed rigid types of pupil control. Findings revealed a statistically significant difference between high agreement schools and low agreement schools: schools with high agreement among teachers regarding pupil control ideology (regardless of what that control ideology was) had less student alienation than schools with low agreement among teachers (Shearin Jr. 1982). Both studies have significant implications for the relationship between school discipline and perceptions of climate, specifically regarding the harshness of discipline and the degree to which it is consistently enforced.

Hoy (1972) additionally found significant relationships between aspects of the school context and students' perceptions of powerlessness in a cross-sectional study of 45 New Jersey high schools. Like Rafalides and Hoy (1971), this study hypothesized a direct relationship

between dimensions of student alienation and schools' rigid (or custodial) orientation toward pupil control (ibid.). However, Hoy (1972) additionally hypothesized that schools with more "open" climates<sup>12</sup> would have lower levels of student alienation. Findings revealed that having a custodial or more rigid pupil control orientation was a significant predictor of an increased sense of powerlessness among students. Other significant predictor variables included hinderance (+), esprit (–), thrust (–), and intimacy (–). These findings suggested that students are more likely to feel powerless in schools where teachers feel that they are increasingly burdened with unnecessary work; while students are less likely to feel powerless in schools where teachers have a high level of morale, have closer interpersonal relationships with each other, and whether principals motivate teachers (ibid.). Despite its cross-sectional nature, this study provided support for the argument that school climate factors are significantly associated with students' perceptions of powerlessness.

These prior findings regarding student powerlessness additionally have important implications for misconduct and punishment, as evidenced by Bracy's (2011) ethnographic research with public high school students. Bracy investigated students' perceptions of "high-security" schools, or educational environments that rely on police officers, metal detectors, and other security measures, in addition to strict disciplinary policies. Themes that emerged through this research specifically concerning students' perceptions of punishments were that students felt frustrated by the lack of due process in punishment, inconsistencies in rule enforcement, and the

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<sup>12</sup> Hoy (1972) measured schools' climate characteristics by utilizing Halpin and Croft's (1963) Organizational Climate Description Questionnaire. Hoy used this questionnaire to measure 8 dimensions of climate: *disengagement* among teachers (going through the motions of teaching without being committed to the task at hand); *hinderance* (teachers feeling they are burdened with unnecessary busy work); *esprit* (teachers' sense of morale); *intimacy* (teachers' strength of relationships with each other); *aloofness* (formal, impersonal, and arbitrary behavior by principals); *production emphasis* (principals' close supervision of staff); *thrust* (principals' effort to motivate teachers by example); and *consideration* (principals treating teachers "humanly"). Schools with open climates were low on disengagement, hinderance, aloofness, and production emphasis; high on esprit, thrust, and consideration; and average on intimacy (with closed climates displaying the opposite pattern except for intimacy).

fact that punishments were often disproportionately punitive (ibid.). Students revealed that when teachers and/or administrators were quick to punish without letting students explain, displayed favoritism when deciding which students to punish, and used harsh punishments for relatively minor infractions that they felt alienated and powerless (ibid.). These reported feelings of powerlessness associated with the ways in which schools use punishment are therefore important to consider when examining the relationship between schools' use of disciplinary practices and students' perceptions of school climate and safety.

Research on alienation in the school setting has additionally focused on teachers' and principals' experiences. In a study of 278 teachers in a midwestern U.S. city, Cox and Wood (1980) proposed that "the less frequently teachers participate in decision making, the more rigid they perceive the hierarchy of authority to be, the greater the degree of job codification, and the more rigidly the rules are enforced in the school system, the more alienated teachers would be" (p. 4). Correlational results revealed support for each of those hypotheses with coefficients over .40 and significance beyond the .001 level (ibid.). Among a sample of 417 elementary school teachers in New Jersey, Zielinski and Hoy (1983) additionally found that teachers' perceptions of powerlessness were significantly related to the degree of pride and sense of accomplishment teachers felt in their work. As teachers felt more powerless, the less pride and sense of accomplishment teachers had in their work (ibid.). Drawing on prior alienation research, Dworkin et al. (2003) conducted a study of 2,961 urban public school teachers and their experiences with burnout, conceptualized by the authors as "a form of role-specific alienation" (p. 109). Findings of interest revealed that teachers were significantly less likely to experience burnout when schools adopted more democratic personnel policies,<sup>13</sup> when teachers felt that they

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<sup>13</sup> These policies were characterized by principal support and collegiality, a non-authoritarian principal, teacher involvement in decision-making, an emphasis on student-centered instruction (characterized by cultivating problem-

had support from other teachers, and when they perceived that their schools were safe and orderly, characterized by effective disciplinary policies (ibid.).

Qualitative research additionally provides rich detail concerning teachers' perceptions of powerlessness. Conducting interviews with 42 teachers over two years, Brooks et al. (2008) found that teachers routinely mentioned having little to no input regarding school policies or programs that directly affected their work. However, teachers reported that their feelings of powerlessness diminished when they spoke of their perceived level of control within their classrooms (ibid.). Brooks et al. (2008) therefore made an important distinction regarding the level of power teachers perceive they have over school-wide policies and practices and in their own classrooms. Taken together, these findings suggest that not only do aspects of school climate significantly relate to teachers' feelings of powerlessness, but also that subjective powerlessness felt among teachers may make their work personally less meaningful.

Finally, pertinent to this current research is a study conducted by Urick and Bowers (2011), which gauged high school principals' perceptions of their leadership on their schools' academic climate. Academic climate in this study was measured by traditional school climate items pertaining to student and teacher morale and teachers' academic support of students. Independent variables of interest included principals' perceived instructional influence over the school (setting curricular guidelines, establishing policies and practices, etc.) and the extent to which they believed their ability to maintain a good disciplinary environment influenced the evaluation of their position as a principal (ibid.). Findings revealed that when principals felt they had a greater degree of instructional influence in their schools, they were more likely to have positive perceptions of academic climate (ibid.). However, "principals who felt that they were

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solving skills, independent learning, going beyond the textbook, and discovering students' talents and interests), and a deemphasis on traditional instruction.

evaluated more on the disciplinary environment of their schools had a more negative view of the academic climate in their schools” (Urlick and Bowers 2011:9). Echoing findings from the alienation literature, the above study provides important insight into the degree of control principals feel they have over their schools and how this perceived control (or lack thereof) impacts their perceptions of academic climate. Furthermore, principals who react negatively to the perception that they are evaluated on discipline management has significant implications for the ways in which they implement and use disciplinary practices.

## CONCLUSION

While prior studies have found that student perceptions of rules and fairness of disciplinary practices are associated with lower levels of disorder, delinquency, and victimization (Gottfredson et al. 2005; Way 2011; Fissel et al. 2019), few have investigated the mechanisms by which schools’ use of discipline impacts perceptions of school climate and school safety. Furthermore, many of these studies have been cross-sectional in nature, therefore being unable to determine temporal ordering.

Drawing upon prior literature and noting its limitations, this study examines how schools’ use of disciplinary procedures impacts perceptions of school climate and safety among students and teachers, focusing on both the direct relationships as well as the relationships as moderated by the theoretical constructs of legitimacy and powerlessness. Therefore, this research investigates whether the ways in which schools decide to use punishment will have significant effects on students’ and teachers’ perceptions of climate and safety, and whether these effects are strengthened or attenuated by perceptions of discipline as fair and the level of perceived powerlessness among students and teachers.



This chapter provided a discussion of zero tolerance discipline, an overview of empirical studies discussing the relationship between school climate perceptions and schools' disciplinary practices, and an overview of the theoretical framework guiding the current study. The following chapter will present the methodology used in this research.

## CHAPTER III

### METHODOLOGY

This chapter presents the research methodology used to examine the relationships between schools' use of disciplinary practices and perceptions of school climate among students and teachers. The chapter includes an overview of the data set used in the study, a discussion of the research design, variables and their measurement, and the analytic plan for this study.

#### RESEARCH DESIGN

This study employs secondary data analysis of the National Education Longitudinal Study (NELS) of 1988. The data were public use files that did not require a restricted use license. The NELS study was originally “designed to provide trend data about critical transitions experienced by students” (Ingels et al. 1990:5) throughout high school, in college, and during their careers. Data was collected through a two-stage stratified probability design that allowed first for the random selection of 1,734 schools with 1,052 participating schools (815 public and 237 private) and second for a random selection of 26,435 students among sampled schools with a resulting participation of 24,599 students in wave 1 (ibid.). Waves 1 (1988), 2 (1990), and 3 (1992) of NELS are based on a national probability sample of 8th, 10th, and 12th grade students in the United States, and waves 2 and 3 included a “freshened” sample to account for attrition and to ensure that the 10th and 12th grade samples were representative (Curtin et al. 2002). Each wave of NELS included four study components: surveys and cognitive tests of students, as well as surveys of parents, teachers, and school administrators. This study includes student, teacher,

and school data primarily from waves 2 and 3 of NELS, while also utilizing some control variables from wave 1.

The sampling strategy in wave 1 of NELS focused on “schools as the first stage unit and students within schools as the second stage unit...[where] [w]ithin each stratum, schools were selected with probabilities proportional to their estimated eighth grade enrollment” (Ingels et al. 1990:18). Stratification of the sample was based on whether schools were public or private; urban, suburban, or rural; and schools’ enrollment percentages of Black and Hispanic students (ibid.). Students were excluded from the sample when it was deemed that the surveys or tests would not be suitable, such as students with mental illnesses, who were not proficient in English, and those with physical or emotional problems that would make their participation difficult (ibid.). Schools were restricted to mainstream U.S. schools, meaning that Bureau of Indian Affairs (BIA) schools, special education schools, vocational schools, and schools for dependents of military personnel were excluded from the sample (ibid.). Multiple measures of many of the key constructs of interest are available in the data set. Various forms of factor analyses and scaling were necessary to create constructs associated with climate, legitimacy, powerlessness, and discipline at the school and individual level (Bollen and Lennox 1991).

Achieving the final student sample first involved excluding cases where the student’s status in wave 3 was out of school or unknown (U.S. Department of Education, National Center for Education Statistics 2000). Data collectors identified whether a student was “in school and in the expected grade, in school but not in the expected grade, dropout, ineligible, out-of-scope or status unknown” (ibid. 2000:125), as well as whether the student’s status was part of the freshened wave 2 subsample. If a student was identified as dropout, ineligible, out-of-scope, or status unknown, they were excluded from the sample because the goal of this research is to

analyze students in schools. I then excluded cases with missing data on all student and school level variables of interest to this study leaving me with a preliminary sample of 7,037 students. Finally, I created a break variable by aggregating school IDs to determine how many students per school were available in the data. I then excluded cases where schools had less than 10 students per school (schools with less than 10 students made up 24.1% of the preliminary 7,037). This left me with a final student sample of 5,339 students nested in 389 schools with at least 10 students per school, with no missing data.

Achieving the final teacher sample involved excluding cases where teachers had missing ID numbers and with missing values on any of the key variables of interest, leaving me with a preliminary teacher sample of 4,269. Like in the student sample, I then created a break variable by aggregating school IDs to determine how many teachers per school were available in the data. I excluded cases where schools had less than 10 teachers per school (schools with less than 10 teachers per school made up about 51% of preliminary 4,269), leaving me with a final teacher sample of 2,086 teachers in 160 schools with at least 10 teachers per school. Although teacher data was collected primarily in connection with and reference to student outcomes (Ingels et al. 1990), the measures used in this research pertain specifically to teacher perceptions about the school environment and arguably constitute a sufficient sample from which to draw conclusions about teacher outcomes.

### *Benefits and Utility of NELS Data*

The student and school level samples allow for generalizability at both the individual and school levels (Campbell and Stanley 1963; Sampson 2010). Despite not constituting a representative probability sample according to NELS data collectors (Ingels et al. 1990), the

teacher data allow for an investigation of teacher perceptions of important school climate indicators among a sufficient sample size suitable for multilevel analyses. The teacher data also provide alternative insights and triangulation for measurement of key features of the school. Furthermore, analysis of NELS data has the potential to provide significant policy implications. In fact, the major goal of the original study was “intended to produce a comprehensive data set for the development and evaluation of educational policy at all governmental levels” (Ingels et al. 1990:5).

The data allow for an analysis of observations nested within schools, making multilevel modeling an appropriate method of inquiry (Roscigno 1998; McNeal 1999). This method is suitable for this research because it allows for an examination of the relationship between individual level (level 1) variables and school level (level 2) variables (Raudenbush and Bryk 2002) and is useful for examining longitudinal data (Massey-Combs et al. 2016). Research in educational settings often examines samples of students and other individual actors who are nested within schools, and due to “this hierarchical data structure, associations and characteristics within groups often depend on the group in question” (Donat et al. 2016:83). The hierarchical and longitudinal nature of the NELS data thus make multilevel modeling appropriate to estimate predictors of individual and school level variation in school climate (Nichols, Loper, and Meyer 2016) and to avoid Type I errors (Osborne 2000; Peugh 2010). Multilevel models explain effects at the lowest level of analysis (level 1) (Paccagnella 2006), and thus the dependent variables measuring school climate and safety make multilevel modeling a suitable analytical procedure.

Despite the age of the data, waves 1-3 of the NELS is suitable for this research primarily due to the measures included as well as the data structure, including administrator, teacher, and

student responses. While more recent data such as the School Survey on Crime and Safety would be ideal for drawing more relevant conclusions, these data only include school level responses from administrators and no individual level data. Among the National Center for Education Statistics' series of school-based longitudinal studies, the most recent survey in the series is the High School Longitudinal Study of 2009; however, publicly available data for this survey do not include administrator data on discipline. Therefore, NELs is suitable for this specific research as it includes relevant measures and data at both school and individual levels.

The primary variables of interest for this study come from waves 2 and 3 of NELs data (with some control variables included from wave 1). Therefore, I conduct a longitudinal analysis examining the effects of wave 2 independent variables on wave 3 moderating and dependent variables, allowing for the establishment of temporal ordering. Furthermore, I use HLM to examine two groups of models, one focusing on students and one focusing on teachers, each nested within schools.

### *Benefits of HLM*

According to Lee (2000), HLM is appropriate particularly for conducting studies of school effects on individual actors such as students, because "children's learning is strongly influenced by the educational context in which it occurs" (p. 125). Arguably, the same sentiment applies to teachers as well, as teachers are also influenced by the educational context in which their work occurs. Furthermore, schools are not only places of education but places of socialization, making a study of school effects (use of discipline) on perceptions of school climate and safety among both students and teachers appropriate.

There are also benefits to having students and teachers in different models rather than combining both into a single model. Students and teachers occupy different roles in the educational context, and it is important to account for those different roles when examining the effects of school level factors such as schools' punishment decisions. Students are more often directly impacted by schools' decisions to punish via detention, suspension, or expulsion because they are held accountable for misbehavior through those methods, while teachers do not experience punishment in this way. However, the ways in which schools punish students does create a disciplinary climate that may impact teachers' feelings about the educational environments in which they work. For instance, scholars have found that when teachers work in less democratic environments, participating in decision making and discipline less often, teachers feel an increased sense of powerlessness (Cox and Wood 1980; Dworkin et al. 2003; Brooks et al. 2008).

## MEASURES

First, I present the school measures used in both the student and teacher models. School measures comprise level 2 independent and control variables. I then discuss the variables used in the student models, followed by the teacher models. The student and teacher measures comprise level 1 dependent, intervening, and control variables.

### *School Measures*

This research aims to measure severity and consistency in schools' use of punishment. As such, the main independent variables of interest for this study are school disciplinary responses to student misbehavior, available only in wave 2. In the NELS questionnaire, school

administrators were asked what type of disciplinary response is enacted in their schools for students caught committing a range of disciplinary infractions. School administrators were asked to report whether 6 types of punishment responses applied regarding 17 different infraction types. The 17 infractions included cheating, skipping class, skipping school for 1-2 days, skipping school for 3 days, verbal abuse of teachers, theft of school property, classroom disturbance, profanity, physically injuring another student, physically injuring a teacher, possession of weapons, possession of alcohol, possession of drugs, selling drugs, use of alcohol at school, use of drugs at school, and smoking at school.<sup>14</sup> The 6 disciplinary response categories included no action, detention, in-school suspension (ISS), out-of-school suspension (OSS), disciplinary transfer to an alternative school, and expulsion; and administrators were asked to report whether each of these type of disciplinary response categories applied (1) or did not apply (0) based on the infraction in question. School administrators could potentially choose one, or multiple, response categories for each infraction.

### *Punishment severity*

Punishment severity measures the most punitive type of punishment that school administrators reported as applying to each of the 17 infraction items listed above. For each infraction, I computed a maximum punishment variable indicating the most punitive response that school administrators reported as applying to each infraction, ranging from no action to expulsion. As such, categories for these variables include no action (1), detention (2), ISS (3), OSS (4), transfer (5), and expulsion (6). It is important to note that these variables measure the most severe punishment type that applied to each infraction, regardless of whether less punitive

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<sup>14</sup> These infractions were for the first occurrence only. NELs did survey administrators regarding the second occurrences of each of the same infractions.



punishments also applied in each case. Even if a case demonstrated that multiple types of punishment could apply to the same infraction, this measure only takes the highest score. For instance, if an administrator reported that OSS, ISS, detention, and no action applied to cheating, this case would receive a 4 for the maximum punishment variable indicating that OSS is the most severe type of punishment applicable in this specific case. Thus, higher scores indicate more punitive or severe responses to student misbehavior.

Scores on these measures were aggregated to the school level for multilevel analyses and thus represent the mean score for the maximum punishment applicable for each infraction in the school sample. Descriptive statistics for the aggregated individual punishment severity indicators may be found in Appendix A. I then constructed a general punishment severity composite (summed score of most severe response for all infractions), as well as severity composites distinguished by offense subtype as nonviolent, violent or drug.<sup>15</sup> Nonviolent offenses include cheating, skipping class, skipping 1-2 days of school, skipping 3 days of school, theft, classroom disturbance, profanity, and verbal abuse of teachers. Violent offenses include physically injuring another student, weapons possession, and physically injuring a teacher. Drug offenses include alcohol possession, drug possession, selling drugs, using alcohol, using drugs, and smoking. Descriptive statistics for the severity composites are listed in Tables 1 and 2.<sup>16</sup>

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<sup>15</sup> For HLM analyses, the punishment composites are the primary variables of interest. Descriptives for the individual indicators making up these composites may be found in Appendix A.

<sup>16</sup> While the same school measures were used in the student and teacher models, differing school sample sizes necessitate two sets of descriptive statistics for schools: one set for the student sample and one set for the teacher sample.

Table 1. Descriptive Statistics: Punishment Severity Composites (Student Sample)

Variable	N=389			
	Min-Max	Mean	St. Dev.	Skewness
General Punishment Severity	48-100	68.32	9.20	0.66
Nonviolent Punishment Severity	16-46	25.92	4.68	1.13
Violent Punishment Severity	9-18	15.17	2.03	-0.52
Drug Punishment Severity	18-36	27.23	4.15	0.38

Table 2. Descriptive Statistics: Punishment Severity Composites (Teacher Sample)

Variable	N=160			
	Min-Max	Mean	St. Dev.	Skewness
General Punishment Severity	48-99	67.34	8.75	0.76
Nonviolent Punishment Severity	18-45	25.50	4.35	1.28
Violent Punishment Severity	9-18	14.93	2.09	-0.49
Drug Punishment Severity	18-36	26.90	4.05	0.47

Among the individual indicators, the offenses that may incur the harshest punishments include weapons possession, physically injuring a teacher, and selling drugs, as each of these offenses had means greater than 5. Offenses that may incur the least severe punishments include cheating, skipping class, classroom disturbance, and profanity. There appeared to be significant variation in the ranges of the individual severity indicators, where a few schools indicated that no action was the most severe punishment for cheating, skipping class, and smoking (student sample), while other schools indicated that expulsion may potentially apply for those same infractions. Among the punishment severity composites, schools had moderate average scores for all the punishment variables. It should also be noted that a few schools reported that they would be quite severe on many infractions; for reference, the maximum possible value for

general severity was 102, for nonviolent severity was 48, for violent severity was 18, and for drug severity was 36.

### *Punishment consistency*

Punishment consistency measures whether schools in the study used a range of punishments for each infraction type and how strict or lenient those punishments were. This accounts for schools reporting that they may apply a range of punishment for a single infraction. For instance, a score of 6 for any infraction would mean that all punishment types could apply to that specific infraction in a school, ranging from no action to expulsion. Thus, higher scores indicate less consistency in punishment. For the individual punishment consistency indicators, I determined that a maximum score of less than 3 for any infraction indicates a “short range” of punishment, or that that schools are more consistent in their punishment style. A maximum score of 3 or greater indicates a “wide range” of punishment, or that schools are less consistent in their punishment style considering that for the same infraction, a school might respond in a variety of ways ranging from no action to possibly expulsion.

Like the severity measures, the individual punishment consistency indicators were aggregated to the school level for multilevel analyses and thus represent the mean punishment consistency score for each infraction in the school sample. Descriptive statistics for the aggregated individual punishment consistency indicators and regarding the percentage of schools in the wide range of punishment for each infraction may be found in Appendix A. I then constructed a general punishment consistency composite (summed score of all punishment responses for all infractions), as well as consistency composites distinguished by offense subtype

as nonviolent, violent or drug. Descriptive statistics for these measures may be found in Tables 3 and 4.

Table 3. Descriptive Statistics: Punishment Consistency Composites (Student Sample)

Variable	N=389			
	Min-Max	Mean	St. Dev.	Skewness
General Punishment Consistency	17-53	21.83	6.98	1.66
Nonviolent Punishment Consistency	8-27	10.47	3.83	1.77
Violent Punishment Consistency	3-10	3.89	1.34	1.66
Drug Punishment Consistency	6-18	7.47	2.52	2.01

Table 4. Descriptive Statistics: Punishment Consistency Composites (Teacher Sample)

Variable	N=160			
	Min-Max	Mean	St. Dev.	Skewness
General Punishment Consistency	17-51	21.03	6.85	2.09
Nonviolent Punishment Consistency	8-27	10.07	3.61	2.17
Violent Punishment Consistency	3-10	3.72	1.35	2.38
Drug Punishment Consistency	6-18	7.24	2.50	2.45

Findings for the individual punishment consistency indicators reveal that schools are generally consistent in their punishment decisions, as mean values for individual indicators were between 1 and 2. This suggests that on average, schools rely on one or two courses of disciplinary action for each of the offenses. However, upon examining the min-max scores for each of the offenses, it appears that some schools are less consistent in their disciplinary decisions. The most inconsistent punishment decisions are associated with cheating, skipping class, skipping 1-3 days, theft, classroom disturbance, profanity, physically injuring a student,

verbally abusing a teacher, alcohol and drug possession, and smoking,<sup>17</sup> which each have minimum scores of 1 and maximum scores of 4. These scores indicate that while some schools rely on a single form of punishment for these offenses, other schools report that 4 out of 6 punishment types may apply to these offenses. Thus, while average scores indicate consistency in punishment, there are schools in the sample that are inconsistent in the ways they decide to punish certain offenses.

It also appears that very small percentages of schools fall into the “wide range” of punishment (i.e. having a maximum score of 3 or more) for each offenses. Therefore, most of the sample is fairly consistent in the application of punishments as they display scores of below 3, indicating a “short range” of punishment. The offenses with the highest percentage of schools with scores of 3 or higher is classroom disturbance (12.2%) followed by profanity (11.4%) for schools in the student sample; and profanity (10%) followed by classroom disturbance (8.8%) for schools in the teacher sample.

Findings regarding the punishment consistency composites among schools revealed that schools were generally more consistent in their punishment decisions, as mean scores are closer to the minimum values for each measure. In addition, maximum scores did not reach the true potential maximum score for any measure,<sup>18</sup> indicating that school administrators may have used more discretion in their disciplinary decisions rather than choosing that all punishments may potentially apply for every infraction.

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<sup>17</sup> For the schools in the student sample. Same findings apply for schools in the teacher sample excluding skipping 3 days, theft, and profanity, which have max scores of 3.

<sup>18</sup> Potential maximum scores for each composite consistency measure were the same as the potential maximum scores for punishment severity composites.

*Strict and lenient consistency measures*

I also constructed consistency measures indicating range based on specific type of punishment. For each of the 17 infraction types, I created a “lenient” range and a “strict” range variable. The lenient range is a sum of administrator responses regarding no action, detention, and ISS, while the strict range is a sum of administrator responses regarding OSS, transfer, and expulsion. Potential scores for each of these measures could range from 0 to 3, indicating that schools either use none, all, or a combination of the lenient or strict responses to misbehavior. Lower scores therefore indicate more consistency among lenient or strict responses while higher scores indicate less consistency.

These indicators were then aggregated to the school level, representing the mean strict and lenient scores for each infraction among schools. I then constructed a general composite for both strict and lenient punishments (summed scores of strict/lenient punishments for all infractions), as well as composites distinguished by offense subtype as nonviolent, violent, or drug. Higher scores indicate less consistency in the potential application of strict or lenient punishments. Descriptive statistics for the aggregated individual indicators for strict and lenient punishments may be found in Appendix A. Composite measures for strict and lenient punishments may be found in Tables 5-8.

Table 5. Descriptive Statistics: Punishment Consistency Composites, Strict Range (Student Sample)

Variable	N=389			
	Min-Max	Mean	St. Dev.	Skewness
General Strict Punishment	0-34	13.17	5.42	1.17
Nonviolent Strict Punishment	0-16	3.55	2.76	1.32
Violent Strict Punishment	0-9	3.51	1.29	1.16
Drug Strict Punishment	0-16	6.11	2.22	1.15

Table 6. Descriptive Statistics: Punishment Consistency Composites, Strict Range (Teacher Sample)

Variable	N=160			
	Min-Max	Mean	St. Dev.	Skewness
General Strict Punishment	0-34	12.54	5.33	1.48
Nonviolent Strict Punishment	0-16	3.27	2.60	1.65
Violent Strict Punishment	0-9	3.32	1.32	1.69
Drug Strict Punishment	0-16	5.95	2.24	1.59

Table 7. Descriptive Statistics: Punishment Consistency Composites, Lenient Range (Student Sample)

Variable	N=389			
	Min-Max	Mean	St. Dev.	Skewness
General Lenient Punishment	1-21	8.66	3.94	0.85
Nonviolent Lenient Punishment	1-15	6.92	2.52	0.51
Violent Lenient Punishment	0-3	0.37	0.64	1.75
Drug Lenient Punishment	0-7	1.37	1.58	1.68

Table 8. Descriptive Statistics: Punishment Consistency Composites, Lenient Range (Teacher Sample)

Variable	N=160			
	Min-Max	Mean	St. Dev.	Skewness
General Lenient Punishment	2-21	8.49	3.82	1.02
Nonviolent Lenient Punishment	2-15	6.81	2.50	0.69
Violent Lenient Punishment	0-3	0.40	0.65	1.69
Drug Lenient Punishment	0-6	1.29	1.42	1.92

The strict range consistency variables are summed measures of administrator responses regarding OSS, transfer, and expulsion, with potential scores ranging from 0-3. Individual indicators display considerable variation in mean scores, ranging from the lowest means of .11 (student sample) and .14 (teacher sample) to the highest mean of 1.25 (student sample) and 1.18 (teacher sample). For offenses with means significantly below 1 (cheating, skipping class, skipping 1-3 days, classroom disturbance, profanity, verbally abusing a teacher, and smoking), this generally indicates that most schools do not use strict punishments at all for those offenses. For the remaining offenses that have means approaching 1 or slightly more than 1, this indicates that most schools use at least 1 type of strict punishment (OSS, transfer, or expulsion). The results here support findings regarding punishment severity, where the highest means for the strict range consistency variables are for physically injuring a teacher, weapons possession, and selling drugs.

However, upon examining min-max scores it appears that some schools are highly inconsistent even in their application of strict punishments. Most offenses have minimum scores of 0 and maximum scores of 3. These scores indicate that while some schools rely on no strict punishments for these offenses, other schools report that all the strict punishments could



potentially be applied. For instance, this means that while at most schools, no strict punishment is applied for theft; students at other schools could potentially receive OSS, transfer, or expulsion for this offense. Thus, while the average scores indicate consistency in strict punishment, there are some schools in the sample that are inconsistent in the ways they apply these punishments.

The lenient range consistency variables are summed measures of administrator responses regarding no action, detention, and ISS, with potential scores ranging from 0-3. Findings suggest that on average, schools use at least 1 type of lenient response for less serious offenses like cheating, skipping class, skipping 1-2 days, classroom disturbance, and profanity, while lenient offenses are used less often for the other offenses. There is some variation in decisions to apply lenient punishments among schools, where most individual indicators display minimum scores of 0 and maximum scores of 2. This suggests that at some schools, lenient punishments may not be applied at all to certain infractions, while in other schools those same infractions may receive 1 or 2 types of lenient punishment.

Regarding the composite measures for strict and lenient discipline decisions, administrators were generally on the more consistent side for both strict and lenient punishment decisions as displayed by the mean values that fall closer to the minimum scores. A few schools were highly inconsistent regarding strict punishments for violent offenses, displaying the maximum score of 9 and indicating that potentially all strict punishments may apply for violent offenses.

### *Control variables*

The school level controls chosen for this study have been included as controls in prior literature specifically on school climate research utilizing NELS data (see Hoffmann and Xu

2002; Stewart 2003; Hoffmann and Dufur 2008; Apel et al. 2009; Way 2011), as well as in school delinquency and safety literature more broadly (Schreck and Miller 2003; McNulty-Eitle and Eitle 2004; Perumean-Chaney and Sutton 2013; Burdick-Will 2013; Lacoë 2015; Peguero et al. 2017). These controls include type of school, school size, school location, school racial makeup, free/reduced lunch, special education, student-teacher ratio, and administrator reports of school disorder, and descriptive statistics for these variables may be found in Tables 9 and 10.

Table 9. Descriptive Statistics: School Level Control Variables (Student Sample)

Variable	N=389			
	Min-Max	Mean	St. Dev.	Skewness
Type of school	0-1	0.84	0.37	-1.84
School size	1-7	3.59	1.42	0.58
Urban	0-1	0.21	0.41	1.41
Rural	0-1	0.37	0.48	0.54
Suburban	0-1	0.42	0.49	0.34
Percent racial minority	0-7	2.26	1.73	0.56
Percent free/reduced lunch	0-7	2.62	1.83	0.11
Percent special education	0-67	7.41	5.97	3.26
Student-teacher ratio	10-30	16.81	4.51	0.69
School disorder	13-36	23.08	4.56	0.28

Table 10. Descriptive Statistics: School Level Control Variables (Teacher Sample)

Variable	N=160			
	Min-Max	Mean	St. Dev.	Skewness
Type of school	0-1	0.78	0.42	-1.33
School size	1-7	3.63	1.46	0.54
Urban	0-1	0.27	0.44	1.05
Rural	0-1	0.37	0.48	0.55
Suburban	0-1	0.36	0.48	0.58
Percent racial minority	0-7	2.24	1.67	0.56
Percent free/reduced lunch	0-6	2.24	1.86	0.31
Percent special education	0-36	6.93	5.62	1.38
Student-teacher ratio	10-30	16.19	4.26	0.85
School disorder	13-33	22.28	4.41	0.04

Type of school is a dummy variable that measures whether the school is a public (1) or private (0) school. At least 75% of schools in the samples were public schools.<sup>19</sup> School location is a composite measure that classifies the urbanicity of schools according to Federal Information Processing Standards used by the 1980 U.S. Census, where this variable was created directly from QED data (Ingels et al. 1990). I recoded this composite variable into a set of dummy variables where suburban location served as the reference category for multivariate analyses. Most schools in the student sample were classified as suburban (42%); and schools in the teacher sample were about evenly split between suburban (37%) and rural (36%).

School size is a composite measure<sup>20</sup> that categorizes the entire school enrollment as reported by the school. This variable was coded into 7 categories in the NELS data: 1-199 students (1), 200-399 students (2), 400-599 students (3), 600-799 students (4), 800-999 students

<sup>19</sup> Unless otherwise noted, descriptive findings for school controls were similar between the student and teacher samples.

<sup>20</sup> Composite measures for schools were constructed by NELS data collectors. Missing data for the school size variable were imputed by NELS data collectors from Quality Education Data (QED) (Ingels et al. 1990).

(5), 1,000-1,999 students (6), and 1,200 or more students (7). The majority of schools in the sample had student enrollments of 400-599 (about 29%) followed by 600-799 students (about 23%) and 200-399 students (about 23%).

School racial makeup is a composite measure of the percentage of minority students in the eighth grade reported by the school and was coded into 8 categories in the NELS data: 0% (0), 1-5% (1), 6-10% (2), 11-20% (3), 21-40% (4), 41-60% (5), 61-90% (6), and 91-100% (7). About 14% of the sample had 0 minority students enrolled and about 29% of the sample had minority enrollments of 1-5%. About 44% of the sample (collectively) had minority student enrollments of 6-10%, 11-20%, and 21-40%; and the remainder of the sample (about 13%) had minority enrollments of 41% or more.

Free/reduced lunch is a composite measure coded into 8 categories in the NELS data, indicating the percentage of students in a school who receive free or reduced lunch and is a proxy for school level SES. Categories included 0% (0), 1-5% (1), 6-10% (2), 11-20% (3), 21-30% (4), 31-50% (5), 51-75% (6), and 76-100% (7). In the student sample of schools, about 17% had 0 students receiving free/reduced lunch (26% in the teacher sample). About 16% of the sampled schools had 1-5% of students receiving free/reduced lunch, and the majority of the sample (about 45%) had anywhere from 11-50% of students receiving free/reduced lunch.

Special education is a continuous measure reported by schools of the percentage of students who receive any type of special education programming at school. This variable remained continuous for this study, where schools in the sample had anywhere from a minimum of 0 students receiving special education programming (about 9% of the student sample and 14% of the teacher sample) to a maximum of 67% of students receiving special education programming in the school sample and 36% of students receiving programming in the teacher

sample. The majority of the sampled schools (about 73%) had anywhere from 1-14% of their student populations receiving special education programming. Collectively, less than 10% of the sample had 15% or more of their student population receiving special education programming, with the majority of the sampled schools had anywhere from 1-14% of their student populations receiving special education programming.

Student-teacher ratio is a composite measure indicating the number of students per 1 teacher in each school, where the entire school enrollment was divided by the number of full-time teachers reported in the first wave (Ingels et al. 1990). This variable was measured in the NELS data in part as a continuous variable and in part as a categorical variable. The survey options included: 10 students (or fewer) to 1 teacher coded as 10; followed by continuous options ranging from 11, 12, 13, etc. to 29 students per 1 teacher; followed by 30 students (or more) to 1 teacher coded as 30. Thus, the coding scheme for this measure ranges from 10 to 30. This measure was fairly equally distributed; and on average, schools in the sample had student-teacher ratios of 14 to 1, 15 to 1, and 16-1 (about 30% of the sample). About 8% of the sample had ratios of 10 (or fewer) to 1, while about 1% of the sample had ratios of 30 (or more) to 1.

Finally, administrator reports of school disorder is a 13-item scale that measures the amount of behavioral problems administrators believe occur among students at their schools. These problems include tardiness, absenteeism, class cutting, physical conflicts, gang activity, robbery/theft, vandalism, alcohol use, drug use, weapons, physical abuse of teachers, verbal abuse of teachers, and racial conflict. Responses included not a problem (1), minor problem (2), major problem (3), and serious problem (4), with higher scores indicating increased school disorder. Responses ranged from a low of 13 to a high of 36 (student sample) and 33 (teacher sample), where 1-2% of the sample reported that all 13 of the behaviors were “not a problem” in

their schools. Less than 10% of the sample had scores of 30 or higher for this measure. Therefore, about 90% of the sample had scores ranging from 14 to 29. The means suggest that most of the sampled schools indicated that these behavioral issues were a minor problem. Interpretations of this variable in the analysis will consider the fact that this measure of school disorder reflects the opinion of the administrator rather than an objective measure of school disorder.

### *Student Measures*<sup>21</sup>

To create the dependent measures of school climate among the student sample, I used variables theoretically related to school climate based on prior literature (see Gottfredson 1986; Stewart 2003; Gottfredson et al. 2005; Hoffmann and Dufur 2008; Apel et al. 2009; Kirk 2009; Gregory et al. 2011; Burdick-Will 2013; Armstrong et al. 2015; Kupchik and Catlaw 2015). After identifying variables theoretically related to school climate, I conducted an exploratory factor analysis with wave 3 items in the original NELS sample to determine whether these variables of interest clustered around relevant factors.<sup>22</sup> All theoretical variables of interest were included in this factor analysis, where two components initially emerged with eigenvalues over 1. After these initial analyses, I extracted three components that comprised school climate and related to the school climate variables rooted in prior literature: morale, negative school experiences, and school safety. Descriptive statistics for these measures may be found in Table 11.

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<sup>21</sup> The full description and coding of all dependent and intervening variables for students and teachers may be found in Appendix B.

<sup>22</sup> Factor loading scores for all relevant construct items may be found in Appendix C. Loading scores below an absolute value of .300 were suppressed.

Table 11. Descriptive Statistics: Dependent Student Measures

Variable	N=5,339			
	Min-Max	Mean	St. Dev.	Skewness
Morale	5-20	14.62	2.16	-0.49
Negative experiences	6-22	11.52	2.41	0.43
Safety	1-4	3.41	0.68	-1.08

### *Morale*

Morale measures students' feelings of commonality with other students and teachers and the extent to which students feel supported by teachers. Student morale is a 5-item scale containing the items: "there is real school spirit," "students make friends with students of other racial/ethnic groups," "the teaching is good at this school," "teachers are interested in students," and "students are graded fairly in school."<sup>23</sup> Responses for these items were measured from strongly disagree (1) to strongly agree (4), with higher scores indicating higher levels of perceived morale. A school's score is the mean across students of the students' average item responses; the average morale score across schools was 14.62. The individual-level alpha for this scale is .67.

### *Negative school experiences*

Negative school experiences measures student reports of negative experiences in the classroom and more generally at school. This measure is a 6-item scale containing the items "disruptions by other students get in the way of my learning," "something was stolen at school," and "someone threatened to hurt me at school," and three new items: "fights often occur between

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<sup>23</sup> The first 4 items in this scale were also measured at wave 2. The item, "students are graded fairly in school" was a new item measured in wave 3.

different racial/ethnic groups,” “there is a lot of cheating on tests and assignments,” and “some teachers ignore cheating when they see it.”<sup>24</sup> For the first three items, responses were coded from strongly disagree (1) to strongly agree (4), and for the second set of items, responses were coded as never (1) to more than twice (3). Therefore, higher scores indicate increased negative experiences at school. A school’s score is the mean across students of the students’ average item responses; the average negative experiences score across schools was 11.52. The individual-level alpha for this scale is .59.

### *Safety*

Based on the goals of this research, I included a single-item measure of perceived school safety among students. This measure asked students to respond to the statement “I don’t feel safe at this school” from strongly agree (1) to strongly disagree (4), where higher values indicated increased feelings of safety at school. Although this item loaded with the other two factors, I chose to extract it as a single item to obtain a clear understanding of how school disciplinary decisions influence student perceptions of safety. While perceptions of school safety are often part of the conceptualization of school climate measures, researchers have primarily examined perceptions of safety at school as an integrated yet separate aspect of climate (see Welsh 2000; Burdick-Will 2013; Lcoe 2015). In other words, the use of perceived safety as either an individual variable or as part of a construct primarily depends on the goals of the research. A school’s score is the mean across students of the students’ average item responses; the average safety score across schools was 3.41. Theoretical path models depicting the direct relationships

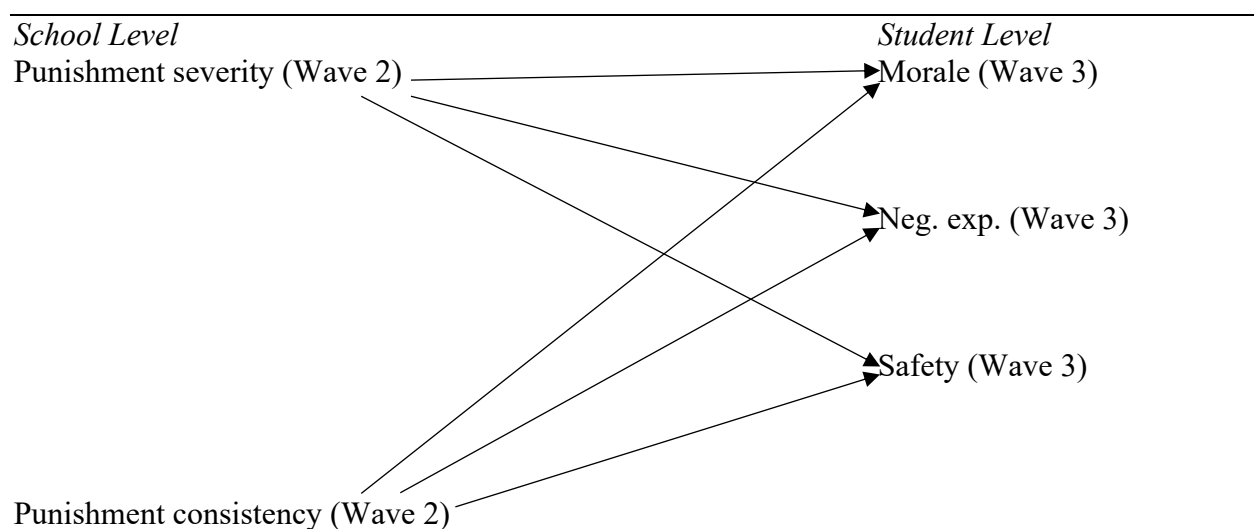
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<sup>24</sup> The first 3 items in this scale were also measured at wave 2. The items, “fights often occur between different racial/ethnic groups,” “there is a lot of cheating on tests and assignments,” and “some teachers ignore cheating when they see it” were new items measured in wave 3.



between the school discipline variables and the student climate variables are listed below in Figure 1.

Figure 1. Student Model (Direct Paths)



### *Theoretical measures*

Intervening variables are variables “inserted in a functional relation between independent and dependent variables” (Gottfredson 1989:10). They are vital to this current study to better understand the process by which school discipline may impact perceptions of school climate and safety. To best capture the theoretical concepts expected to impact this relationship, I include variables to measure perceived legitimacy and powerlessness, driven theoretically by the work of Tyler (1990) and Seeman (1959), as well as methodologically by the work of Fischer (1973). These variables allow for an investigation of whether perceptions of school climate are moderated by perceived legitimacy of school rules and subjective feelings of powerlessness. Descriptive statistics for these variables may be found in Table 12.

Table 12. Descriptive Statistics: Intervening Student Measures

Variable	N=5,339			
	Min-Max	Mean	St. Dev.	Skewness
Legitimacy	1-4	2.64	0.76	-0.70
Powerlessness	5-20	9.73	2.54	0.47

### *Legitimacy*

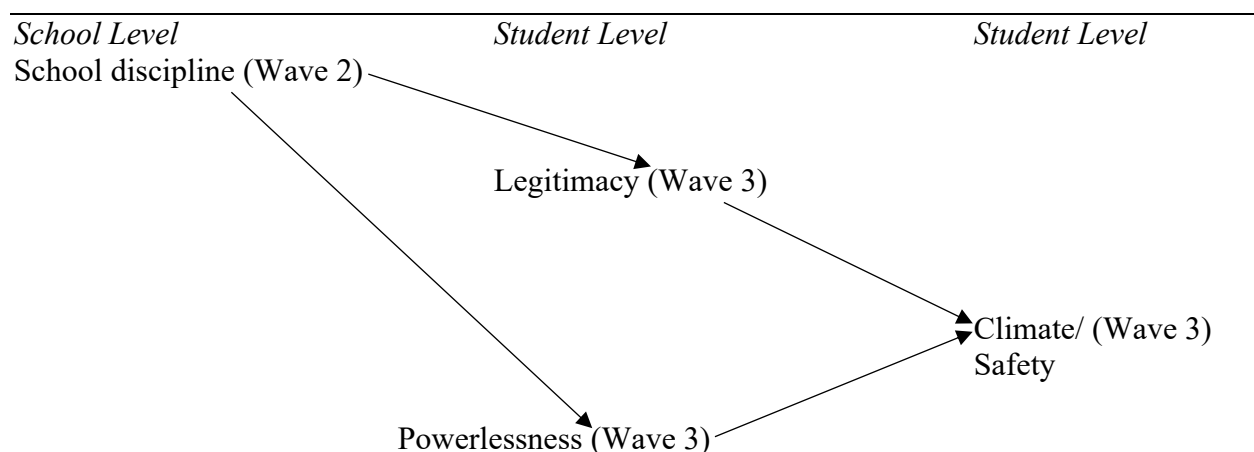
Legitimacy measures the degree to which students perceive that discipline at their schools is fair, tapping into Tyler's (1990) conceptualization of the legitimacy of authority. This measure gauges students' responses to the statement: "discipline is fair at this school." Responses were coded from strongly disagree (1) to strongly agree (4), with higher scores indicating greater perceived legitimacy of rules. A school's score is the mean across students of the students' average item responses; the average legitimacy score across schools was 2.64. Although prior research has included fairness of rules or school discipline within measures of school climate (see Welsh 2000; Schreck and Miller 2003; Gottfredson et al. 2005; Kupchik and Ellis 2008; Gregory et al. 2011; Peguero et al. 2017), this current research is specifically interested in whether perceived legitimacy moderates the relationship between school disciplinary procedures and perceptions of climate and safety. Thus, I include perceptions of discipline fairness as its own measure to investigate this relationship.

### *Powerlessness*

Powerlessness was theoretically based on Seeman's (1959) subjective powerlessness dimension of alienation and modeled after Fischer's (1973) subjective powerlessness measure. This is a 5-item scale that measures the extent to which students felt that they had control over

their lives and events that occur over the course of their lives. Students responded to the following items: “I don’t have enough control over the direction my life is taking,” “in my life, good luck is more important than hard work,” “every time I try to get ahead, something or somebody stops me,” “my plans hardly ever work out, so planning only makes me unhappy,” and “chance and luck are very important for what happens in my life.” Response categories ranged from strongly disagree (1) to strongly agree (4), with higher scores indicating greater feelings of powerlessness. A school’s score is the mean across students of the students’ average item responses; the average powerlessness score across schools was 9.73. The individual-level alpha for this scale is .75. Theoretical path models depicting the moderated relationships between the school discipline variables and the student climate variables are listed below in Figure 2.

Figure 2. Student Model (Moderated Paths)



### *Control variables*

Among students, control variables include race, sex, age, socioeconomic status, student reports of school disorder, and parental involvement. Descriptive statistics for each of these variables may be found in Table 13. These variables have been included as controls in prior literature specifically on school climate research utilizing NELS data (see Hoffmann and Xu 2002; Stewart 2003; Hoffmann and Dufur 2008; Apel et al. 2009), as well as in the school delinquency and safety literature more broadly (Schreck and Miller 2003; Perumean-Chaney and Sutton 2013; Burdick-Will 2013; Lacoë 2015; Peguero et al. 2017).

Table 13. Student Control Variables

Variable	N=5,339			
	Min-Max	Mean	St. Dev.	Skewness
Sex	0-1	0.47	0.50	0.11
Age	1-4	2.29	0.51	1.09
White	0-1	0.79	0.41	-1.43
Black	0-1	0.05	0.22	3.98
Hispanic	0-1	0.07	0.26	3.31
Asian/Pacific Islander	0-1	0.06	0.23	3.96
Native American	0-1	0.03	0.17	5.44
SES	-2.24-2.01	0.20	0.77	-0.07
School disorder	11-44	21.57	8.12	0.75
Parental involvement	4-12	6.83	2.05	0.45

Race and sex are measured as dummy variables, with female and White as the reference categories. There were slightly more females in the sample than males, while White students made up the majority of the sample (79%). Age is measured as the respondent's year of birth categorized as 1975 or after (1), 1974 (2), 1973 (3), and 1972 or before (4). The majority of

students were born in 1974, indicating that at the time of data collection, most students were in 12<sup>th</sup> grade. Socioeconomic status is a continuous measure based on a composite standardized scale constructed for the National Center for Education Statistics, which was derived from parents' education, occupation, and income in the NELS dataset (Ingels et al. 1990; Hoffmann and Xu 2002). This measure remained continuous in this study.

Student reports of school disorder is an 11-item scale measuring the degree to which students perceive certain issues as problematic at school, primarily concerning delinquent and/or criminal behavior. This variable was available in wave 1 only, where items include: tardiness, absenteeism, class cutting, physical conflicts among students, robbery/theft, vandalism of school property, student use of alcohol and illegal drugs, student possession of weapons, physical abuse of teachers, and verbal abuse of teachers. Responses for these items were measured categorically as not a problem (1), minor problem (2), major problem (3), and serious problem (4), with higher scores indicating perceptions of increased school problems. About 8% of students reported that all 11 issues were "not a problem" at their schools, while less than 1% of students reported that all of the 11 issues were "serious problems" at their schools. The approximate mean of 22 for this measure indicated that most students reported that these issues were minor problems at their schools. The individual-level alpha for this scale is .92.

Finally, parental involvement has been shown to be an important indicator of student academic success and delinquent behavior (Hoffmann and Xu 2002; Lareau 2003). It is therefore important to include parental involvement as a control in the student model to adequately examine the direct and moderated relationships between schools' use of discipline and student perceptions of climate while controlling for parent influence. This measure is a 4-item scale of student responses to the question, in the first half of the school year, how often did either of your

parents/guardians “attend a school meeting,” “phone/speak to a teacher/counselor,” “attend a school event in which you participated,” or “volunteer at your school.” This variable was available in wave 2 only. Response categories included never (1), once or twice (2), and more than twice (3), with higher scores indicating increased parental involvement. About 65% of the sample reported parental involvement scores between 4 and 7, while the remainder of the sample reported parental involvement scores between 8 and 12. The mean for this measure indicates that a majority of students had fairly low levels of parental involvement. The individual-level alpha for this scale is .64.

### *Teacher Measures*

For the teacher sample, dependent measures of school climate were measured by three<sup>25</sup> constructs rooted in prior literature: morale, administrative leadership, and teacher reports of school disorder (Stewart 2003; Gottfredson et al. 2005; Hoffmann and Dufur 2008). Unlike the student sample, the NELS data did not have a measure that could adequately tap into teachers’ explicit perceptions of school safety, and thus could not be included (however, teachers’ subjective perceptions of school disorder may serve as a proxy for this). Descriptive statistics for these variables may be found in Table 14.

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<sup>25</sup> Exploratory factor analyses initially indicated only two factors (essentially, the morale and administrative leadership items loaded together). However, I decided based on prior literature to separate these into two constructs as they measure different aspects of school climate. Morale primarily measures the degree of spirit, camaraderie, and support shared among teachers, while administrative leadership primarily measures the degree to which teachers feel supported by administration.

Table 14. Descriptive Statistics for Dependent Teacher Measures

Variable	N=2,086			
	Min-Max	Mean	St. Dev.	Skewness
Morale	8-32	23.68	3.29	-0.21
Administrative leadership	4-16	11.75	2.13	-0.44
School disorder	13-49	24.51	6.42	0.59

### *Morale*

Morale is an 8-item scale measuring the degree to which teachers feel that they can count on others and share similar beliefs and goals. Teacher morale is an 8-item scale of teacher responses to the items: “most of the teachers in my department share my beliefs and values about the central mission of the school,” “there is broad agreement among all school faculty about the central mission of the school,” “staff members are recognized for a job well done,” “teachers in this department are continually learning and seeking new ideas,” “there is a great deal of cooperative effort among my department’s members,” “goals and priorities for this department are clear,” “grading practices are consistent and fair,” and “rules against cheating are actively enforced.”<sup>26</sup> Responses ranged from strongly disagree (1) to strongly agree (4), with higher scores indicating greater feelings of morale. A school’s score is the mean across teachers of the teachers’ average item responses, where this measure had a school mean of 23.68. The individual-level alpha for this scale is .80.

<sup>26</sup> The first 3 items in this scale were also measured at wave 2. The remaining items were newly measured in wave 3.

### *Administrative leadership*

Drawing on the work of Gottfredson et al. (2005), administrative leadership “measures teacher perceptions of the leadership quality of the principal and other administrators in the school and the relations between teachers and administrators” (p. 424). This variable is a 4-item scale of teacher responses to the following items: “the school administrator knows what kind of school he/she wants and has communicated it to the staff,” “the school administrator deals effectively with pressures from outside the school that might otherwise affect my teaching,” “the school administrator knows the problems faced by the staff,” and “necessary materials are readily available as needed by the staff.” Responses were coded from strongly disagree (1) to strongly agree (4), with higher scores indicating more positive perceptions of administrative leadership. A school’s score is the mean across teachers of the teachers’ average item responses, where this measure had a school mean of 11.75. The individual-level alpha for this scale is .75.

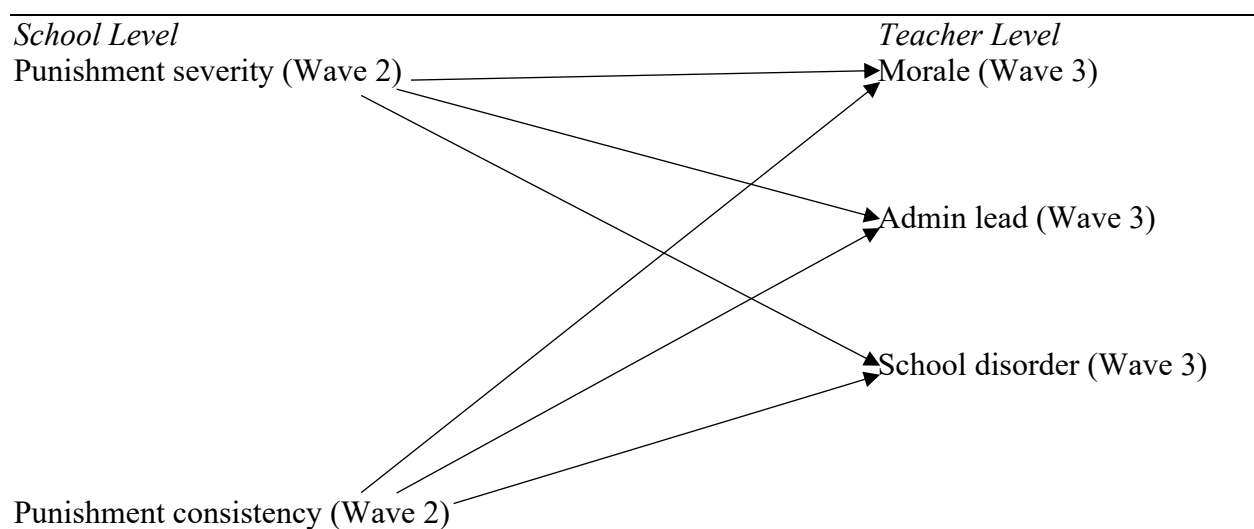
### *School disorder*

Teacher reports of school disorder is a 13-item scale that measures teachers’ perceptions of the degree to which certain issues are problems among students at their schools. This item has been included in the school climate literature more broadly to measure the degree to which school actors perceive that their schools are disorderly based on student misbehavior (see Stewart 2003; Hoffmann and Dufur 2008). The thirteen items included tardiness, absenteeism, class cutting, physical conflicts, gang activities, robbery/theft, vandalism, alcohol use, drug use, possession of weapons, physical abuse of teachers, verbal abuse of teachers, and racial/ethnic conflict. Responses were coded from not a problem (1) to serious problem (4), with higher scores indicating greater perceived school disorder. A school’s score is the mean across teachers of the



teachers' average item responses, where this measure had a school mean of 24.51. The individual-level alphas for this scale is .89. Theoretical path models depicting the direct relationships between the school discipline variables and the teacher climate variables are listed below in Figure 3.

Figure 3. Teacher Model (Direct Paths)



### *Theoretical measures*

Among teachers, intervening variables include legitimacy and powerlessness, drawing theoretically again on the work of Tyler (1990) and Seeman (1959). Descriptive statistics for these variables may be found in Table 15.

Table 15. Descriptive Statistics for Intervening Teacher Measures

Variable	N=2,086			
	Min-Max	Mean	St. Dev.	Skewness
Legitimacy	1-4	2.64	0.82	-0.28
Powerlessness	5-22	8.87	2.78	0.58

### *Legitimacy*

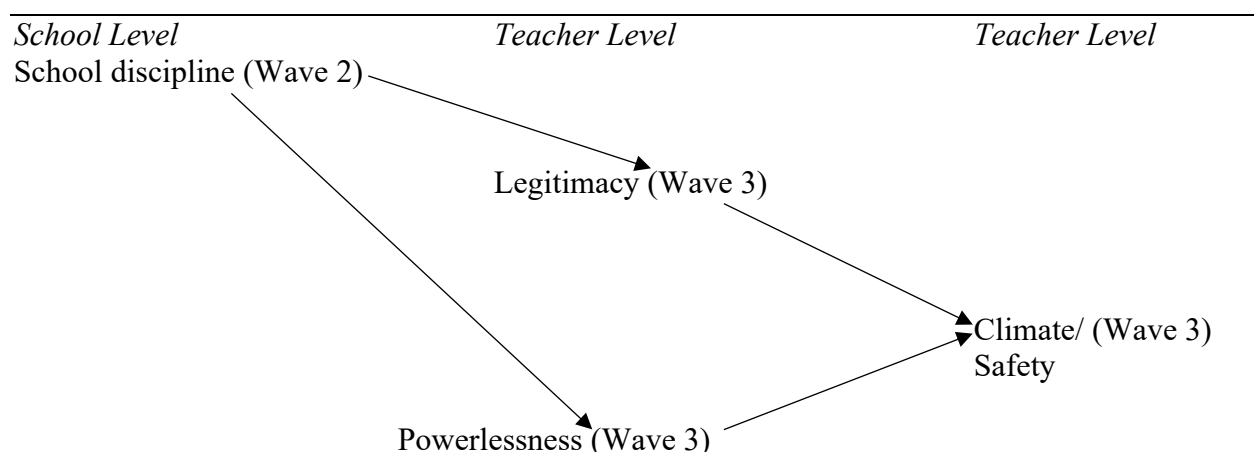
Legitimacy among teachers focuses on teacher perceptions of the reliability of rule enforcement for student behavior at the schools in which they work and was measured by one item asking teachers to rate their agreement with the statement “rules for student behavior are consistently enforced at this school.” Responses ranged from strongly disagree (1) to strongly agree (4), with higher values indicating greater perceived legitimacy of rule enforcement. This measure adheres to measures used in prior literature (see Gottfredson et al. 2005) and may play an important moderating role in the relationship between schools’ use of disciplinary procedures and teacher perceptions of school climate. As actors partially responsible for enforcing school rules, teachers’ perceptions of the climate of their schools may be improved or weakened based on their perceptions of whether overall rule enforcement by their schools is reliable. A school’s score is the mean across teachers of the teachers’ average item responses, where this measure had a school mean of 2.64.

### *Powerlessness*

Prior research suggests that teachers often experience significant degrees of powerlessness and alienation over the course of their careers (Moeller 1964; Jessup 1978; Calabrese and Anderson 1986). Rooted in this prior literature, powerlessness among teachers

was measured by one construct measuring teachers' perceived control over certain aspects of the educational environment. This measure drew primarily on Seeman's (1959) subjective powerlessness construct of alienation. As such, powerlessness is a 5-item scale measuring how much control teachers believe they have in their classrooms over "selecting instructional materials," "selecting content, topics, and skills to be taught," "selecting teaching techniques," "disciplining students," and "determining the amount of homework assigned." Responses were coded from complete control (1) to no control (5), with higher scores indicating greater perceived feelings of powerlessness in the classroom. A school's score is the mean across teachers of the teachers' average item responses, where this measure had a school mean of 8.87. The individual-level alpha for this scale is .66. Theoretical path models depicting the moderated relationships between the school discipline variables and the student climate variables are listed below in Figure 4.

Figure 4. Teacher Model (Moderated Paths)



### *Control variables*

In the school climate literature, teacher characteristics are usually included as school level controls (see Schreck and Miller 2003; Gottfredson et al. 2005; Lacoë 2015). However, because this study includes a teacher model at the individual level, controls from the teacher sample should be accounted for. Among teachers, controls include sex, race, age, education, and years taught, and descriptive statistics for these variables may be found in Table 16.

Table 16. Teacher Control Variables

Variable	N=2,086			
	Min-Max	Mean	St. Dev.	Skewness
Sex	0-1	0.60	0.49	-0.40
Age	1-9	4.09	1.88	0.03
White	0-1	0.94	0.24	-3.62
Black	0-1	0.03	0.17	5.40
Hispanic	0-1	0.02	0.13	7.65
Other	0-1	0.01	0.12	8.03
Bachelors	0-1	0.75	0.43	-1.15
Masters	0-1	0.58	0.49	-0.34
Ed.S.	0-1	0.17	0.37	1.77
Ph.D.	0-1	0.01	0.12	8.03
Years taught	0-9	5.99	2.73	-0.46

Race and sex are measured as dummy variables, with female and White as the reference categories. Males made up about 60% of the sample while the majority of the sample was White (94%). Age is measured as the respondent's date of birth, coded categorically in the NELLS data as: 1961 or after (1), 1956-1960 (2), 1951-1955 (3), 1946-1950 (4), 1941-1945 (5), 1936-1940

(6), 1931-1935 (7), 1926-1930 (8), and 1925 or before (9). The majority of teachers (about 42%) were born between 1941 and 1950.

Education is a set of dummy variables measuring the type of degree held by the respondent, where responses included bachelors, masters, education specialist (Ed.S.), and doctoral (Ph.D.) degrees. Holding a bachelors degree served as the reference category in multivariate analyses, with most of the sample having this degree (75%). Over half of the sample held a masters degree, with much fewer percentages holding Ed.S. or Ph.D. degrees.

Years taught was measured categorically as the number of years the respondent has taught at the secondary level of education. This variable was coded into 10 categories in the NELS data: 0 years (0), 1-3 years (1), 4-6 years (2), 7-9 years (3), 10-12 years (4), 13-15 years (5), 16-18 years (6), 19-21 years (7), 22-24 years (8), and 25 or more years (9). Over 60% of the sample taught for 16 or more years.

## ANALYTIC STRATEGY

The current analytic strategy begins with presenting the results of bivariate correlations for the major variables of interest. Then, I present the results of two separate groups of models that will do the following: estimate the individual level effects of the school level independent variables on the dependent variables; estimate the effects of the intervening variables, perceived legitimacy and powerlessness, on the dependent variables; and estimate whether the effects of disciplinary procedures are conditioned by perceptions of legitimacy and powerless using cross-level interactions. For this study, hierarchical regression models are used to investigate direct effects of school disciplinary procedures on perceptions of climate and safety for students and

teachers, and to investigate whether any such relationships can be accounted for by the intervening variables.

I employ two sets of hierarchical regression models: one for students and one for teachers. Thus, the effects of school discipline are examined separately for students and teachers and they will not be included in the same model. Among the student and teacher models, individual level data will be compared to school level data from administrators reporting on school level discipline and other school level controls. To account for school level scores for the variables of interest, the means across student and teacher scores on each of the scales are used (Gottfredson et al. 2005). Utilizing the means across the individual level scores thus allows for an examination of individuals nested within schools, “distinguish[ing] the particular effects and variances of school practices from individual attributes” (Way 2011:356). All predictor variables are grand-mean centered, as primary predictors of interest are at level 2 while controlling for level 1 covariates (Enders and Tofighi 2007) and all models are estimated at restricted maximum likelihood with robust standard errors (Wooldridge 2002; Enders and Tofighi 2007).

Multilevel modeling is conducted with HLM software. According to Lee and Bryk (1989), “an HLM consists of two equations, a within- and between-unit model” (p. 174). This means that HLMs examine effects within individual units such as schools as well as effects across units. Because this study examines the effects of school discipline on individuals nested within schools, this statistical method is appropriate.

## CHAPTER IV

### RESULTS: STUDENT MODELS

This section presents bivariate correlations for major variables of interest among students and schools, as well as the HLM results for the student models.

#### BIVARIATE CORRELATIONS: STUDENTS AND SCHOOLS

Prior to performing multivariate analyses, bivariate analyses were performed among dependent, intervening, and independent variables of interest among the student sample. Findings show many significant relationships among the variables of interest; however, many of these relationships are weak to moderate ( $r < .60$ ). Table 17 displays these results.

Table 17. Bivariate Correlations Among Dependent, Intervening, and Independent Variables of Interest: Students (N=5,339)

	Morale	Neg. Exp.	Safety	Legit	Powerless
Morale					
Neg. Exp.	-.41***				
Safety	.30***	-.43***			
Legit	.43***	-.27***	.17***		
Powerless	-.25***	.25***	-.25***	-.17***	
Severity	.07***	-.03*	-.02	.03	-.002
Consist	.01	-.004	-.01	-.003	.02
V-Sev	.04**	.004	-.05***	.002	-.01
V-Consist	-.03*	.02	-.02	-.02	.03
NV-Sev	.05***	-.01	-.02	.02	.01
NV-Consist	.02	-.01	-.01	-.003	.01
D-Sev	.07***	-.06***	.002	.04**	-.01
D-Consist	-.003	-.01	-.01	.01	.02
Strict	.01	-.01	-.03	.01	.02
Lenient	.004	.01	.01	-.01	-.002
V-Strict	-.05**	.03*	-.06***	-.03*	.03*
V-Lenient	.03	-.03*	.07***	.02	-.003
NV-Strict	.04**	-.02	-.01	.02	.01
NV-Lenient	-.01	.02	-.001	-.03*	.01
D-Strict	-.01	-.02	-.02	.01	.03*
D-Lenient	.01	.01	.01	.003	-.02

\*p<.05, \*\*p<.01, \*\*\*p<.001

### *Morale*

Morale and negative experiences had a negative relationship, suggesting that as perceived negative experiences increase, student morale decreases. There were also significant and positive relationships between morale and safety as well as morale and legitimacy. This suggests that as perceived safety and fairness of rules increase, so too does morale. Additionally, as feelings of powerlessness increase among students, morale decreases. Despite being weakly associated, results displayed significant correlations between morale and some of the discipline variables,



including punishment severity (all offenses), violent punishment severity and consistency, nonviolent punishment severity, drug punishment severity, and strict punishment (OSS, transfer, expulsion) consistency for both violent and nonviolent offenses. These findings suggest that regardless of offense type or categorization, punishment severity is associated with increased morale. Regarding punishment consistency, findings suggest that as punishment (generally) for violent offenses becomes less consistent, morale decreases; this finding also applies to strict punishments for violent offenses. Finally, as punishment for nonviolent offenses becomes less consistent, morale increases.

### *Negative Experiences*

Negative experiences had a negative relationship with safety and legitimacy, suggesting that perceived negative experiences among students decrease as perceived safety increases and as students perceive rules as fairer. Negative experiences also had a positive relationship with powerlessness, suggesting that perceived negative experiences among students increase as feelings of powerlessness increase. When examining associations between discipline variables, negative experiences had a negative relationship with punishment severity (all offenses), drug punishment severity, and lenient punishment (no action, detention, ISS) consistency for violent offenses, as well as a positive relationship with strict punishment consistency for violent offenses. These findings suggest that as punishment severity in general and for drug offenses increases, negative experiences decrease; as lenient punishments for violent offenses become less consistent, negative experiences decrease; however as strict punishments for violent offenses become less consistent, negative experiences increase.

### *Safety*

Safety had a positive relationship with legitimacy and a negative relationship with powerlessness, suggesting that as students perceive rules to be fairer, they also feel safer at school; and as students feel an increased sense of powerlessness, they feel less safe at school. Among the discipline variables, safety had a negative relationship with violent punishment severity and strict punishment consistency for violent offenses, as well as a positive relationship with lenient punishment consistency for violent offenses. These findings suggest that as punishment severity for violent offenses increases, perceived safety among students decreases; as strict punishments for violent offenses become less consistent, perceived safety decreases; and as lenient punishments for violent offenses become less consistent perceived safety increases.

### *Legitimacy and Powerlessness*

The intervening variables of legitimacy and powerlessness had a negative relationship, suggesting that as students perceive rules as increasingly fair, they feel less powerless. Legitimacy displayed a positive relationship with drug punishment severity but negative relationships with strict punishment consistency for violent offenses and lenient punishment consistency for nonviolent offenses. These findings suggest that as punishment severity for drug offenses increases, students perceive rules to be more fair; as strict punishments for violent offenses become less consistent, students perceive rules to be less fair; and as lenient punishments for nonviolent offenses become less consistent, students perceive rules to be less fair.

## INTRODUCING MULTILEVEL RESULTS

The following sections introduce the results for the multilevel models for the student sample. I built the multilevel models gradually to determine whether there were any significant changes in coefficients from one model to the next. I first estimated unconditional models for all dependent variables of interest to examine whether student feelings of morale, negative experiences, and/or safety significantly varied across schools. Additional models incorporated the level-2 discipline variables, level-1 intervening variables of perceived legitimacy and powerlessness, the level-1 and level-2 controls, and finally the cross-level interaction terms (one at a time) between discipline and legitimacy/powerlessness, creating the full models. In HLM, models were estimated using restricted maximum likelihood (REML) to produce unbiased and therefore more precise parameter estimates (Raudenbush and Bryk 2002; Hox 2010; Konishi et al. 2017). The results of analyses are presented as unstandardized regression coefficients and standard errors. Below, I outline the method by which I created the student models.

### *Building Multilevel Models: Student Outcomes*

- Step 1: Estimate unconditional model for morale, negative experiences, and safety
- Step 2: Examine effects of level-2 discipline variables on morale, negative experiences, and safety, in sets of 2
  - Severity and consistency (general, all offenses)
  - Violent severity and violent consistency
  - Nonviolent severity and nonviolent consistency
  - Drug severity and drug consistency
  - Strict and lenient punishments (general, all offenses)

- Violent strict and violent lenient
- Nonviolent strict and nonviolent lenient
- Drug strict and drug lenient
- Step 3: Add intervening variables to step 2 models
- Step 4: Add all level-1 controls to step 3 models
  - Step 4a: Examine effects of cross-level interactions individually
- Step 5: Add all level-2 controls to step 4 models
  - Step 5a: Examine effects of cross-level interactions individually

## MORALE

### *Unconditional Model*

The null or unconditional model tests whether multilevel modeling is needed or appropriate for further data analyses (Raudenbush and Bryk 2002; Garson 2012). For student morale, the unconditional model indicates that average morale scores significantly vary across schools ( $b = 14.60$ ,  $p < .001$ ), justifying the use of multilevel modeling for further analyses. This is further confirmed by the intraclass correlation coefficient (ICC), calculated as the intercept variance divided by total variance (Garson 2012), and quantifies the proportion of the total variation in student morale accounted for by school differences (Aguinis, Gottfredson, and Culpepper 2013). For this model, the ICC is .15, indicating that differences between schools account for 15% of the total variability in students' morale scores. According to Mathieu et al. (2012), ICC values in multilevel studies typically range between .15 and .30, while ICC values in the educational literature typically range from .10 to .25 (Hedges and Hedberg 2007).

*Examining Effects of Discipline*

After estimating the unconditional model, I examined the effects of the discipline variables on student perceptions of morale, using two variables at a time (step 2). I examined the discipline variables in this fashion to determine severity's effect while holding consistency constant (and vice versa), and to determine the effect of strict punishment consistency while holding lenient punishment consistency constant (and vice versa). It was not possible nor desirable to include all independent variables in the model due to multicollinearity concerns. Thus, I examined the effects of discipline variables, in sets of two, on student morale. Findings for each of these models may be found in Table 18.

Table 18. Student Morale Regressed on Discipline Measures<sup>27</sup>

Level 2 (N=389)	B (SE)	Variance Component (Intercept)
General Severity	.02*** (.007)	.686***
General Consistency	-.02 (.009)	
Violent Severity	.06* (.029)	.698***
Violent Consistency	-.09* (.043)	
Nonviolent Severity	.03* (.015)	.704***
Nonviolent Consistency	-.01 (.018)	
Drug Severity	.05*** (.015)	.684***
Drug Consistency	-.04 (.023)	
General Strict	.002 (.009)	.717***
General Lenient	.004 (.012)	
Violent Strict	-.07 (.039)	.704***
Violent Lenient	.08 (.074)	
Nonviolent Strict	.03 (.018)	.710***
Nonviolent Lenient	-.004 (.019)	
Drug Strict	-.004 (.022)	.717***
Drug Lenient	.01 (.030)	

\*p<.05; \*\*p<.01; \*\*\*p<.001

When examining the effects of the discipline variables alone on student morale, findings suggest that discipline severity has a positive and significant effect on morale. This suggests that as discipline severity increases, whether for all offenses, violent offenses, nonviolent offenses, or drug offenses, student morale also increases. Results also show that discipline consistency for violent offenses has a negative and significant effect on morale, suggesting that as punishments for violent offenses are less consistent, student morale decreases.

<sup>27</sup> Results are for 8 separate models. The variance component represents the intercept variance for each model.

### *Incorporating Intervening Variables*

I then incorporated the intervening variables, legitimacy and powerlessness, into the models examining the effects of discipline on student morale. This created a random coefficients model with both level-1 and level-2 predictors, where HLM predicted both fixed and random effects (Garson 2012). I allowed these measures to vary randomly in HLM to estimate the variability between students by their school grouping, and because the level-2 units (schools) are sampled from a larger population to which findings will be generalized (Snijders and Berkhof 2007). Findings for each of these models may be found in Table 19.

Table 19. Student Morale Regressed on Discipline Measures and Intervening Variables<sup>28</sup>

Level 1 (N=5,339)	B (SE)	Variance Component
Legitimacy	1.06*** (.042)	
Powerlessness	-.14*** (.012)	
Level 2 (N=389)		
General Severity	.02** (.006)	
General Consistency	-.02* (.008)	
Random Effects		
Intercept		.425***
Legitimacy		.208***
Powerlessness		.016***
Violent Severity	.05* (.024)	
Violent Consistency	-.08* (.035)	
Random Effects		
Intercept		.431***
Legitimacy		.208***
Powerlessness		.016***

<sup>28</sup> Findings are for 8 separate models, each including legitimacy and powerlessness. For the sake of space, findings are listed in the same table because the coefficients for legitimacy and powerlessness did not change significantly between models.

Table 19. Continued

Level 2 (N=389)	B (SE)	Variance Component
Nonviolent Severity	.02 (.012)	
Nonviolent Consistency	-.01 (.015)	
Random Effects		
Intercept		.434***
Legitimacy		.206***
Powerlessness		.016***
Drug Severity	.04** (.012)	
Drug Consistency	-.03 (.018)	
Random Effects		
Intercept		.426***
Legitimacy		.205***
Powerlessness		.016***
General Strict	-.003 (.007)	
General Lenient	.003 (.010)	
Random Effects		
Intercept		.443***
Legitimacy		.204***
Powerlessness		.016***
Violent Strict	-.06* (.032)	
Violent Lenient	.05 (.060)	
Random Effects		
Intercept		.438***
Legitimacy		.204***
Powerlessness		.016***
Nonviolent Strict	.01 (.014)	
Nonviolent Lenient	.001 (.016)	
Random Effects		
Intercept		.440***
Legitimacy		.205***
Powerlessness		.016***



Table 19. Continued

Level 2 (N=389)	B (SE)	Variance Component
Drug Strict	-.01 (.018)	
Drug Lenient	.001 (.026)	
Random Effects		
Intercept		.443***
Legitimacy		.205***
Powerlessness		.016***

\*p<.05; \*\*p<.01; \*\*\*p<.001

When incorporating the level-1 intervening variables, the results display that both legitimacy and powerlessness have significant effects on morale. Legitimacy has a positive effect, suggesting that as perceived fairness of rules increases, so too does morale. Powerlessness has a negative effect, suggesting that as students feel a greater or increased sense of powerlessness, morale decreases. General punishment severity, violent punishment severity, and drug punishment severity remain significant and positive from prior models, while the incorporation of intervening variables bumps nonviolent punishment severity out of significance. In addition, general punishment consistency becomes significant, having a negative effect on student morale. This finding suggests that as punishment for all offenses becomes less consistent, student morale decreases. This same finding also applies to punishment consistency for violent offenses. Additionally, the consistency of strict punishments for violent offenses reaches significance, having a negative effect on morale. This finding suggests that as strict punishments for violent offenses become less consistent, student morale decreases. Furthermore, variance components suggest that there is significant variation between schools on the intercept (morale) and the intervening variables, displaying significant random effects.

### *Incorporating Controls and Cross-Level Interactions*

The final steps for the student morale models involved incorporating the level-1 and level-2 control variables. These variables were included to account and control for common demographic factors pertinent to both individual student contexts and school level contexts. Level-1 control variables were entered first followed by level-2 control variables, which constituted the full and final models for this set of analyses. In addition, I incorporated cross-level interactions into the models to determine whether the intervening variables conditioned the effects of discipline on morale. Cross-level interactions involve creating an interaction term among measures at two different levels of analysis; in this case, the intervening variables are at level-1 while the discipline variables are at level-2. Interaction terms were incorporated individually for clarity of interpretation.

According to Hox (2010), significant interactions are best interpreted as a system, where both the direct effects of the individual terms as well as the interaction term are included in the model, even if those direct effects are not significant. While interactions are commonly interpreted statistically based on the values of measures, interactions may also be interpreted in terms of having a moderating effect (ibid.); and based on the aims of this research, the interaction terms will be interpreted in this manner. Furthermore, when an interaction exhibits a significant effect, “the regression coefficients of the simple or direct variables that make up that interaction carry a different meaning than in a model without this interaction effect” (Hox 2010:63). In the event of a significant interaction term in these analyses, the direct effect coefficients will be interpreted as: the effect of independent variable 1 on the outcome variable when independent variable 2 is at its mean, and vice versa (ibid.). Tables 20-23 display findings the final full models.

Table 20. Student Morale Regressed on All Measures (General Severity/Consistency and Violent Severity/Consistency Models)<sup>29</sup>

Level 1 (N=5,339)	B (SE)	B (SE)	B (SE)	B (SE)
Black	.14 (.140)	.12 (.142)	.16 (.139)	.13 (.140)
Hispanic	.30* (.126)	.28* (.130)	.29* (.125)	.27* (.130)
Asian	.28* (.124)	.26* (.127)	.28* (.123)	.26* (.126)
Native American	.11 (.147)	.13 (.147)	.11 (.147)	.13 (.147)
Sex	.17** (.054)	.16** (.054)	.17** (.054)	.16** (.054)
Age	.11* (.049)	.12* (.050)	.11* (.049)	.11* (.050)
SES	-.01 (.042)	-.09* (.041)	-.01 (.042)	-.09* (.041)
Disorder	-.01** (.003)	-.01* (.004)	-.01** (.003)	-.01* (.004)
Parental Involvement	.06*** (.013)	.05*** (.013)	.06*** (.013)	.05*** (.013)
Legitimacy	1.05*** (.042)	1.04*** (.042)	1.05*** (.042)	1.04*** (.042)
Powerlessness	-.14*** (.012)	-.14*** (.012)	-.14*** (.012)	-.14*** (.012)
Level 2 (N=389)				
School Type		-.78*** (.129)		-.78*** (.129)
School Size		.10*** (.027)		.10*** (.027)
Racial Composition		.04 (.025)		.03 (.026)
Free/Reduced Lunch		-.02 (.023)		-.02 (.023)
Special Education		-.01** (.005)		-.01* (.005)
Student-Teacher Ratio		-.04*** (.009)		-.04*** (.009)
Urban		-.03 (.105)		-.03 (.104)
Rural		.14 (.087)		.14 (.087)
School Disorder		-.02* (.010)		-.02* (.009)
General Severity	.02** (.006)	.01 (.005)		
General Consistency	-.01 (.008)	-.004 (.007)		
Violent Severity			.05* (.024)	.02 (.021)
Violent Consistency			-.07* (.035)	-.05 (.034)
Cross-Level Interactions				
Legitimacy*Severity	-.004 (.005)	-.01 (.005)		
Legitimacy*Consistency	-.01 (.006)	-.01 (.006)		
Powerless*Severity	-.005** (.001)	-.004** (.001)		
Powerless*Consistency	-.01*** (.002)	-.01*** (.002)		
Legitimacy*V-Severity			-.003 (.022)	-.01 (.022)
Legitimacy*V-Consistency			-.03 (.029)	-.03 (.028)

<sup>29</sup> Coefficients for predictor variables and variance components represent models without cross-level interactions. Cross-level interactions were entered individually, and results reflect this for the interaction terms. There were no significant changes in coefficients for predictor variables nor variance components upon the incorporation of interaction terms, unless otherwise noted. For the sake of space, results are presented this way.

Table 20. Continued

Cross-Level Interactions	B (SE)	B (SE)	B (SE)	B (SE)
Powerless*V-Severity			-.02* (.007)	-.02* (.007)
Powerless*V-Consistency			-.02** (.008) <sup>30</sup>	-.02** (.008)
Random Effects	Variance Component	Variance Component	Variance Component	Variance Component
Intercept	.412***	.278***	.418***	.278***
Legitimacy	.209***	.201***	.209***	.202***
Powerlessness	.016***	.015***	.016***	.015***

\*p<.05; \*\*p<.01; \*\*\*p<.001

Table 21. Student Morale Regressed on All Measures (Nonviolent Severity/Consistency and Drug Severity/Consistency Models)

Level 1 (N=5,339)	B (SE)	B (SE)	B (SE)	B (SE)
Black	.16 (.139)	.13 (.141)	.15 (.141)	.13 (.130)
Hispanic	.30* (.126)	.27* (.130)	.30* (.126)	.28* (.130)
Asian	.29* (.123)	.26* (.127)	.28* (.124)	.26* (.127)
Native American	.11 (.147)	.12 (.147)	.11 (.147)	.12 (.147)
Sex	.17** (.054)	.16** (.054)	.17** (.054)	.16** (.054)
Age	.11* (.049)	.12* (.050)	.11* (.049)	.12* (.050)
SES	-.01 (.042)	-.09* (.042)	-.01 (.042)	-.09* (.041)
Disorder	-.01** (.003)	-.01** (.004)	-.01** (.003)	-.01* (.004)
Parental Involvement	.06*** (.013)	.06*** (.013)	.06*** (.013)	.05*** (.013)
Legitimacy	1.05*** (.042)	1.04*** (.042)	1.05*** (.042)	1.04*** (.042)
Powerlessness	-.14*** (.012)	-.14*** (.012)	-.14*** (.012)	-.14*** (.012)
Level 2 (N=389)				
School Type		-.81*** (.132)		-.77*** (.128)
School Size		.10*** (.027)		.10*** (.027)
Racial Composition		.04 (.025)		.04 (.025)
Free/Reduced Lunch		-.02 (.023)		-.02 (.023)
Special Education		-.01** (.005)		-.01** (.005)
Student-Teacher Ratio		-.04*** (.009)		-.04*** (.009)
Urban		-.04 (.105)		-.03 (.105)
Rural		.14 (.086)		.14 (.088)
School Disorder		-.02* (.010)		-.02* (.009)

<sup>30</sup> Upon inclusion of interaction term, violent consistency falls out of significance.

Table 21. Continued

Level 2 (N=389)	B (SE)	B (SE)	B (SE)	B (SE)
Nonviolent Severity	.02 (.012)	.003 (.011)		
Nonviolent Consistency	-.01 (.015)	.01 (.015)		
Drug Severity			.03** (.012)	.01 (.010)
Drug Consistency			-.03 (.018)	-.02 (.016)
Cross-Level Interactions				
Legitimacy*NV-Severity	-.02 (.010)	-.02 (.010)		
Legitimacy*NV-Consistency	-.02 (.012)	-.02 (.011)		
Powerless*NV-Severity	-.01** (.003) <sup>31</sup>	-.01** (.003)		
Powerless*NV-Consistency	-.01*** (.003)	-.01** (.003)		
Legitimacy*D-Severity			.000 (.010)	-.004 (.010)
Legitimacy*D-Consistency			-.01 (.016)	-.01 (.015)
Powerless*D-Severity			-.01* (.003)	-.01* (.003)
Powerless*D-Consistency			-.01* (.004)	-.01** (.004)
Random Effects	Variance Component	Variance Component	Variance Component	Variance Component
Intercept	.420***	.277***	.413***	.279***
Legitimacy	.205***	.200***	.206***	.201***
Powerlessness	.015***	.015***	.016***	.015***

\*p<.05; \*\*p<.01; \*\*\*p<.001

Table 22. Student Morale Regressed on All Measures (General Strict/Lenient and Violent Strict/Lenient Models)

Level 1 (N=5,339)	B (SE)	B (SE)	B (SE)	B (SE)
Black	.18 (.139)	.13 (.141)	.19 (.139)	.14 (.141)
Hispanic	.30* (.125)	.27* (.129)	.30* (.125)	.27* (.130)
Asian	.29* (.124)	.26* (.127)	.29* (.123)	.26* (.127)
Native American	.11 (.147)	.12 (.147)	.11 (.147)	.12 (.147)
Sex	.17** (.054)	.16** (.054)	.17** (.054)	.16** (.054)
Age	.11* (.049)	.11* (.050)	.10* (.049)	.11* (.050)
SES	-.01 (.042)	-.09* (.042)	-.01 (.041)	-.09* (.041)
Disorder	-.01** (.003)	-.01* (.004)	-.01** (.003)	-.01* (.004)
Parental Involvement	.06*** (.013)	.05*** (.013)	.06*** (.013)	.05*** (.013)
Legitimacy	1.05*** (.042)	1.04*** (.042)	1.05*** (.042)	1.04*** (.042)

<sup>31</sup> Upon inclusion of interaction term, nonviolent severity becomes significant (.02\*).

Table 22. Continued

Level 1 (5,339)	B (SE)	B (SE)	B (SE)	B (SE)
Powerlessness	-.14*** (.012)	-.14*** (.012)	-.14*** (.012)	-.14*** (.012)
Level 2 (N=389)				
School Type		-.82*** (.132)		-.79*** (.130)
School Size		.10*** (.027)		.10*** (.027)
Racial Composition		.04 (.025)		.04 (.025)
Free/Reduced Lunch		-.02 (.023)		-.02 (.023)
Special Education		-.01** (.005)		-.01** (.005)
Student-Teacher Ratio		-.04*** (.009)		-.04*** (.009)
Urban		-.05 (.106)		-.04 (.105)
Rural		.13 (.087)		.13 (.088)
School Disorder		-.02* (.010)		-.02* (.009)
General Strict	-.002 (.007)	-.003 (.007)		
General Lenient	.005 (.010)	.01 (.010)		
Violent Strict			-.06 (.033)	-.04 (.030)
Violent Lenient			.05 (.061)	-.01 (.056)
Cross-Level Interactions				
Legitimacy*General Strict	-.005 (.008)	-.01 (.007)		
Legitimacy*General Lenient	-.01 (.010)	-.01 (.010)		
Powerless*General Strict	-.01*** (.002)	-.01*** (.002)		
Powerless*General Lenient	-.002 (.003)	-.002 (.003)		
Legitimacy*V-Strict			-.02 (.028)	-.01 (.028)
Legitimacy*V-Lenient			-.05 (.065)	-.05 (.064)
Powerless*V-Strict			-.02* (.009)	-.02* (.009)
Powerless*V-Lenient			-.001 (.018)	.000 (.018)
Random Effects	Variance Component	Variance Component	Variance Component	Variance Component
Intercept	.428***	.279***	.424***	.279***
Legitimacy	.206***	.200***	.206***	.200***
Powerlessness	.016***	.015***	.016***	.015***

\*p&lt;.05; \*\*p&lt;.01; \*\*\*p&lt;.001

Table 23. Student Morale Regressed on All Measures (Nonviolent Strict/Lenient and Drug Strict/Lenient Models)

Level 1 (N=5,339)	B (SE)	B (SE)	B (SE)	B (SE)
Black	.17 (.139)	.13 (.141)	.18 (.139)	.13 (.141)
Hispanic	.30* (.125)	.27* (.129)	.30* (.125)	.27* (.130)
Asian	.29* (.124)	.26* (.127)	.29* (.124)	.26* (.127)
Native American	.11 (.147)	.12 (.147)	.11 (.147)	.12 (.147)
Sex	.17** (.054)	.16** (.054)	.17** (.054)	.16** (.054)
Age	.11* (.049)	.12* (.050)	.11* (.049)	.12* (.050)
SES	-.01 (.042)	-.09* (.042)	-.01 (.042)	-.09* (.041)
Disorder	-.01** (.003)	-.01* (.004)	-.01** (.003)	-.01* (.004)
Parental Involvement	.06*** (.013)	.06*** (.013)	.06*** (.013)	.05*** (.013)
Legitimacy	1.05*** (.042)	1.04*** (.042)	1.05*** (.042)	1.04*** (.042)
Powerlessness	-.14*** (.012)	-.14*** (.012)	-.14*** (.012)	-.14*** (.012)
Level 2 (N=389)				
School Type		-.83*** (.134)		-.81*** (.130)
School Size		.10*** (.026)		.10*** (.027)
Racial Composition		.04 (.025)		.04 (.025)
Free/Reduced Lunch		-.02 (.023)		-.02 (.023)
Special Education		-.01** (.005)		-.01** (.005)
Student-Teacher Ratio		-.03*** (.009)		-.04*** (.009)
Urban		-.05 (.106)		-.04 (.106)
Rural		.14 (.086)		.14 (.087)
School Disorder		-.02* (.010)		-.02* (.009)
Nonviolent Strict	.02 (.014)	.004 (.012)		
Nonviolent Lenient	.005 (.016)	.02 (.016)		
Drug Strict			-.01 (.018)	-.01 (.017)
Drug Lenient			.001 (.026)	-.01 (.023)
Cross-Level Interactions				
Legitimacy*NV-Strict	-.02 (.016)	-.02 (.016)		
Legitimacy*NV-Lenient	-.01 (.016)	-.01 (.016)		
Powerless*NV-Strict	-.01*** (.004)	-.01** (.004)		
Powerless*NV-Lenient	-.004 (.004)	-.005 (.004)		
Legitimacy*D-Strict			.01 (.016)	.01 (.016)
Legitimacy*D-Lenient			-.03 (.024)	-.02 (.024)
Powerless*D-Strict			-.02*** (.005)	-.02** (.005)
Powerless*D-Lenient			-.02 (.007)	-.003 (.007)

Table 23. Continued

Random Effects	Variance Component	Variance Component	Variance Component	Variance Component
Intercept	.425***	.276***	.428***	.280***
Legitimacy	.206***	.199***	.207***	.201***
Powerlessness	.016***	.015***	.016***	.015***

\*p<.05; \*\*p<.01; \*\*\*p<.001

Upon the incorporation of level-1 controls alone, results show that general severity, violent severity, and drug severity are significant and positive, suggesting that as punishment severity increases for these measures, so too does student morale. Violent consistency is also significant and negative, suggesting that as punishments for violent offenses are less consistent, student morale decreases. Furthermore, there are significant interactions between powerlessness and many of the discipline variables: general severity and consistency; nonviolent severity and consistency; drug severity and consistency; and all the strict range consistency variables; suggesting that student powerlessness significantly moderates the effect of these discipline variables on morale. Furthermore, these interactions are all negative demonstrating that increases in powerlessness weakens the impact of each discipline measure on morale. For instance, the significant and negative term powerlessness\*severity results in a weakened positive effect of general severity on morale, meaning that increases in perceived powerlessness result in a lesser or weakened impact of general punishment severity on morale. This suggests that when students feel increasingly powerless, severe punishment still has a positive impact on morale (but this impact is not as strong as the individual direct impact). In other words, even when students feel powerless, morale still improves with severe punishment.

Among level-1 controls, Hispanic and Asian students display significantly higher morale scores than Whites; boys have significantly higher morale scores than girls; morale significantly



increases with age and as parental involvement increases; and morale significantly decreases as school disorder (as perceived by students) increases. Additionally, student SES has a significant and negative effect on morale only upon incorporation of level-2 controls.

When adding level-2 controls to the models, the punishment severity measures fall out of significance. However, the aforementioned interaction terms remain significant. Among level-2 controls, public schools have significantly lower morale scores than private schools; morale significantly increases with school size; and morale significantly decreases as schools have greater percentages of students receiving special education services, as the student-teacher ratio increases, and as school disorder (as perceived by administrators) increases. The effects for legitimacy and powerlessness also remain from prior models. Variance components also indicate significant variation in the intercept (morale) and intervening variables between schools, displaying significant random effects.

## NEGATIVE EXPERIENCES

### *Unconditional Model*

The null model for student perceptions of negative experiences indicates that average scores significantly varied across schools ( $b = 11.55$ ,  $p < .001$ ), justifying the use of multilevel modeling for further analyses. The ICC for this model is .15, indicating that differences between schools account for 15% of the total variability in students' negative experience scores. To examine this outcome variable, I built the models in the same fashion previously used to examine student morale.

### *Examining Effects of Discipline*

Upon examining the effects of discipline on student negative experiences, findings show that only drug severity had a significant impact in the negative direction. This suggests that as severity of punishment for drug offenses increases, scores on the negative experiences scale decrease. Table 24 displays the results for this set of models.

Table 24. Student Negative Experiences Regressed on Discipline Measures

Level 2 (N=389)	B (SE)	Variance Component (Intercept)
General Severity	-.01 (.008)	.867***
General Consistency	.01 (.011)	
Violent Severity	.001 (.030)	.874***
Violent Consistency	.04 (.046)	
Nonviolent Severity	-.01 (.018)	.875***
Nonviolent Consistency	.01 (.021)	
Drug Severity	-.04** (.016)	.852***
Drug Consistency	.02 (.025)	
General Strict	-.01 (.011)	.875***
General Lenient	.01 (.013)	
Violent Strict	.06 (.043)	.865***
Violent Lenient	-.10 (.081)	
Nonviolent Strict	-.02 (.023)	.871***
Nonviolent Lenient	.02 (.021)	
Drug Strict	-.02 (.026)	.875***
Drug Lenient	.01 (.036)	

\*p<.05; \*\*p<.01; \*\*\*p<.001

### *Incorporating Intervening Variables*

When incorporating the intervening variables, findings show that legitimacy has a significant and negative effect on student negative experiences while powerlessness has a significant and positive effect on student negative experiences. This suggests that as perceived fairness of rules increases, negative experience scores decrease; and as students feel a greater or increased sense of powerlessness, negative experience scores increase. Furthermore, punishment severity for drug offenses remains significant and negative. Variance components demonstrate that the intercept (negative experiences) as well as legitimacy and powerlessness significantly vary across schools, displaying significant random effects. Table 25 displays the results for these models.

Table 25. Student Negative Experiences Regressed on Discipline Measures and Intervening Variables

Level 1 (N=5,339)	B (SE)	Variance Component
Legitimacy	-.66*** (.048)	
Powerlessness	.18*** (.014)	
Level 2 (N=389)		
General Severity	-.01 (.007)	
General Consistency	.005 (.009)	
Random Effects		
Intercept		.634***
Legitimacy		.238***
Powerlessness		.017***
Violent Severity	.01 (.027)	
Violent Consistency	.01 (.040)	
Random Effects		
Intercept		.637***

Table 25. Continued

	B (SE)	Variance Component
Random Effects		
Legitimacy		.238***
Powerlessness		.017***
Nonviolent Severity	-.01 (.016)	
Nonviolent Consistency	.000 (.018)	
Random Effects		
Intercept		.637***
Legitimacy		.238***
Powerlessness		.017***
Drug Severity	-.04* (.014)	
Drug Consistency	.01 (.021)	
Random Effects		
Intercept		.626***
Legitimacy		.235***
Powerlessness		.017***
General Strict	-.01 (.010)	
General Lenient	.004 (.012)	
Random Effects		
Intercept		.636***
Legitimacy		.239***
Powerlessness		.017***
Violent Strict	.04 (.038)	
Violent Lenient	-.08 (.074)	
Random Effects		
Intercept		.633***
Legitimacy		.236***
Powerlessness		.017***
Nonviolent Strict	-.02 (.020)	
Nonviolent Lenient	.01 (.019)	
Random Effects		
Intercept		.635***
Legitimacy		.238***

Table 25. Continued	B (SE)	Variance Component
Random Effects		
Powerlessness		.017***
Drug Strict	-.02 (.023)	
Drug Lenient	.01 (.030)	
Random Effects		
Intercept		.635***
Legitimacy		.239***
Powerlessness		.017***

\*p<.05; \*\*p<.01; \*\*\*p<.001

### *Incorporating Controls and Cross-Level Interactions*

Upon the incorporation of level-1 controls alone, results show that punishment severity for drug offenses has a significant and negative impact on negative experience scores, suggesting that as punishment severity increases for drug offenses, negative experience scores decrease. In addition, there were significant interactions between powerlessness and drug severity as well as powerlessness and lenient punishment consistency for nonviolent offenses, suggesting that powerlessness significantly moderates the relationship between perceived negative experiences and these discipline measures. The interaction term between powerlessness and drug severity is positive, indicating that increases in powerlessness strengthens the impact of punishment severity for drug offenses on negative experiences; while the term between powerlessness and lenient punishment consistency for nonviolent offenses is negative, suggesting that powerlessness weakens the effect of this discipline measure on negative experiences. However, the effects of drug punishment severity and both interaction terms fell out of significance upon entering level-2 control variables.

Further interpretation of the interaction terms suggests that when students feel increasingly powerless, drug severity still has a negative impact, however the size of the impact on negative experiences is strengthened or enhanced, meaning that increases in perceived powerlessness result in a greater negative impact of drug punishment severity on negative experience scores. This suggests that when students feel powerless, schools may decrease students' feelings of negativity by punishing drug offenses more severely. On the other hand, increases in perceived powerlessness result in a lesser or weaker positive impact of lenient punishment consistency for nonviolent offenses on negative experiences (even though the direct effect of lenient punishment consistency was not significant upon inclusion of the interaction term).

Among level-1 controls, Black students display significantly lower negative experience scores than Whites; boys have significantly lower negative experience scores than girls; and negative experience scores significantly decrease as school disorder (as perceived by students) increases. Additionally, Hispanic students display significantly lower negative experience scores than Whites, but only upon the incorporation of level-2 controls. Among level-2 controls, public schools have significantly higher negative experience scores than private schools; and negative experience scores increase significantly as the percentage of racial minority students increases, as student-teacher ratio increases, and as disorder (as perceived by school administrators) increases. The effects for legitimacy and powerlessness also remain from prior models, and variance components indicate significant variation in the intercept (negative experiences) and intervening variables between schools, displaying significant random effects.

Finally, an interesting finding emerged in these models as related to individual student race and racial composition of schools. In the full models, Black and Hispanic students were

found to have significantly lower negative experience scores than Whites, suggesting that at the individual level, Black and Hispanic students perceive that fewer negative experiences impact them at school. However, findings also suggest that at the school level, racial composition significantly impacts individual perceptions of negative experiences, where increases in the percentage of racial minority students in a school significantly increases negative experience scores among students. Taken together, these findings demonstrate an interesting interplay of individual and school level effects regarding their impact on perceptions of negative experiences among students. Tables 26-29 display the findings for these models.

Table 26. Student Negative Experiences Regressed on All Measures (General Severity/Consistency and Violent Severity/Consistency Models)

Level 1 (N=5,339)	B (SE)	B (SE)	B (SE)	B (SE)
Black	-.37* (.145)	-.54*** (.149)	-.39** (.147)	-.55*** (.149)
Hispanic	-.19 (.129)	-.44** (.135)	-.19 (.129)	-.43** (.135)
Asian	-.02 (.146)	-.10 (.144)	-.03 (.146)	-.10 (.144)
Native American	.28 (.159)	.25 (.163)	.28 (.159)	.25 (.163)
Sex	-.19** (.060)	-.19** (.059)	-.19** (.060)	-.19** (.059)
Age	-.02 (.062)	-.01 (.061)	-.02 (.062)	-.01 (.061)
SES	-.08 (.048)	-.02 (.049)	-.08 (.048)	-.02 (.049)
Disorder	.03*** (.004)	.02*** (.004)	.03*** (.004)	.02*** (.004)
Parental Involvement	.01 (.015)	.02 (.015)	.01 (.015)	.02 (.015)
Legitimacy	-.66*** (.048)	-.65*** (.047)	-.66*** (.048)	-.65*** (.047)
Powerlessness	.18*** (.014)	.19*** (.014)	.18*** (.014)	.19*** (.014)
Level 2 (N=389)				
School Type		.73*** (.157)		.75*** (.158)
School Size		.000 (.033)		-.002 (.033)
Racial Composition		.14*** (.028)		.14*** (.029)
Free/Reduced Lunch		-.004 (.028)		-.004 (.028)
Special Education		.003 (.008)		.003 (.008)
Student-Teacher Ratio		.04*** (.011)		.04*** (.011)
Urban		-.10 (.133)		-.09 (.134)

Table 26. Continued

Level 2 (N=389)	B (SE)	B (SE)	B (SE)	B (SE)
Rural		-.07 (.096)		-.07 (.096)
School Disorder		.05*** (.012)		.05*** (.011)
General Severity	-.01 (.007)	-.002 (.006)		
General Consistency	.004 (.009)	.000 (.007)		
Violent Severity			.02 (.026)	.01 (.022)
Violent Consistency			.003 (.040)	.005 (.033)
Cross-Level Interactions				
Legitimacy*Severity	-.002 (.005)	-.001 (.005)		
Legitimacy*Consistency	-.004 (.007)	-.004 (.007)		
Powerless*Severity	.002 (.001)	.002 (.001)		
Powerless*Consistency	.000 (.002)	.000 (.002)		
Legitimacy*V-Severity			.02 (.022)	.03 (.023)
Legitimacy*V-Consistency			-.01 (.034)	-.01 (.034)
Powerless*V-Severity			-.001 (.008)	-.002 (.007)
Powerless*V-Consistency			-.002 (.009)	-.002 (.009)
Random Effects	Variance Component	Variance Component	Variance Component	Variance Component
Intercept	.602***	.355***	.605***	.355***
Legitimacy	.228***	.206***	.229***	.206***
Powerlessness	.017***	.016***	.017***	.016***

\*p&lt;.05; \*\*p&lt;.01; \*\*\*p&lt;.001

Table 27. Student Negative Experiences Regressed on All Measures (Nonviolent Severity/Consistency and Drug Severity/Consistency Models)

Level 1 (N=5,339)	B (SE)	B (SE)	B (SE)	B (SE)
Black	-.38* (.145)	-.55*** (.149)	-.36* (.145)	-.54*** (.149)
Hispanic	-.19 (.129)	-.44** (.135)	-.19 (.129)	-.44** (.136)
Asian	-.03 (.146)	-.10 (.144)	-.02 (.146)	-.10 (.144)
Native American	.28 (.159)	.25 (.162)	.27 (.159)	.25 (.163)
Sex	-.19** (.060)	-.19** (.059)	-.19** (.060)	-.19** (.059)
Age	-.01 (.062)	-.01 (.061)	-.02 (.062)	-.01 (.061)
SES	-.08 (.048)	-.02 (.049)	-.08 (.048)	-.02 (.049)
Disorder	.03*** (.004)	.02*** (.004)	.03*** (.004)	.02*** (.004)
Parental Involvement	.01 (.015)	.02 (.015)	.01 (.015)	.02 (.015)



Table 27. Continued

Level 1 (N=5,339)	B (SE)	B (SE)	B (SE)	B (SE)
Legitimacy	-.66*** (.048)	-.65*** (.047)	-.66*** (.048)	-.65*** (.047)
Powerlessness	.18*** (.014)	.19*** (.014)	.18*** (.014)	.19*** (.014)
Level 2 (N=389)				
School Type		.75*** (.156)		.71*** (.158)
School Size		-.001 (.033)		.002 (.033)
Racial Composition		.14*** (.028)		.14*** (.028)
Free/Reduced Lunch		-.01 (.028)		-.003 (.028)
Special Education		.003 (.008)		.003 (.008)
Student-Teacher Ratio		.04*** (.011)		.04*** (.011)
Urban		-.09 (.133)		-.10 (.133)
Rural		-.07 (.096)		-.07 (.097)
School Disorder		.05*** (.011)		.05*** (.011)
Nonviolent Severity	-.004 (.015)	.01 (.013)		
Nonviolent Consistency	-.002 (.017)	-.01 (.016)		
Drug Severity			-.03* (.013)	-.01 (.012)
Drug Consistency			.01 (.021)	.003 (.017)
Cross-Level Interactions				
Legitimacy*NV-Severity	-.002 (.010)	.001 (.009)		
Legitimacy*NV-Consistency	-.01 (.012)	-.01 (.012)		
Powerless*NV-Severity	.003 (.003)	.002 (.003)		
Powerless*NV-Consistency	.000 (.003)	.000 (.003)		
Legitimacy*D-Severity			-.01 (.011)	-.01 (.011)
Legitimacy*D-Consistency			-.01 (.019)	-.01 (.019)
Powerless*D-Severity			.01* (.003)	.01 (.003)
Powerless*D-Consistency			.001 (.005)	.001 (.006)
Random Effects	Variance Component	Variance Component	Variance Component	Variance Component
Intercept	.604***	.355***	.596***	.354***
Legitimacy	.230***	.206***	.225***	.205***
Powerlessness	.017***	.016***	.017***	.016***

\*p&lt;.05; \*\*p&lt;.01; \*\*\*p&lt;.001

Table 28. Student Negative Experiences Regressed on All Measures (General Strict/Lenient and Violent Strict/Lenient Models)

Level 1 (N=5,339)	B (SE)	B (SE)	B (SE)	B (SE)
Black	-.37* (.145)	-.54*** (.148)	-.39** (.148)	-.54*** (.149)
Hispanic	-.19 (.129)	-.43** (.135)	-.20 (.129)	-.44** (.135)
Asian	-.02 (.146)	-.10 (.144)	-.03 (.146)	-.10 (.144)
Native American	.28 (.159)	.25 (.163)	.28 (.159)	.25 (.163)
Sex	-.19** (.060)	-.19** (.059)	-.19** (.060)	-.19** (.059)
Age	-.02 (.062)	-.02 (.061)	-.01 (.062)	-.01 (.061)
SES	-.08 (.048)	-.02 (.049)	-.08 (.048)	-.02 (.049)
Disorder	.03*** (.004)	.02*** (.004)	.03*** (.004)	.02*** (.004)
Parental Involvement	.01 (.015)	.02 (.015)	.01 (.015)	.02 (.015)
Legitimacy	-.66*** (.048)	-.65*** (.047)	-.66*** (.048)	-.65*** (.047)
Powerlessness	.18*** (.013)	.19*** (.014)	.18*** (.014)	.19*** (.014)
Level 2 (N=389)				
School Type		.72*** (.156)		.75*** (.158)
School Size		-.001 (.033)		-.004 (.033)
Racial Composition		.14*** (.028)		.14*** (.028)
Free/Reduced Lunch		-.003 (.028)		-.004 (.028)
Special Education		.003 (.008)		.003 (.008)
Student-Teacher Ratio		.05*** (.011)		.05*** (.011)
Urban		-.11 (.132)		-.10 (.133)
Rural		-.08 (.096)		-.08 (.095)
School Disorder		.05*** (.011)		.05*** (.011)
General Strict	-.01 (.009)	-.01 (.008)		
General Lenient	.004 (.011)	.01 (.010)		
Violent Strict			.03 (.038)	-.002 (.032)
Violent Lenient			-.09 (.073)	.07 (.066)
Cross-Level Interactions				
Legitimacy*General Strict	-.004 (.009)	-.003 (.008)		
Legitimacy*General Lenient	-.004 (.012)	-.01 (.012)		
Powerless*General Strict	.003 (.003)	.002 (.003)		
Powerless*General Lenient	-.01 (.003)	-.004 (.003)		
Legitimacy*V-Strict			-.002 (.035)	-.01 (.034)
Legitimacy*V-Lenient			-.03 (.074)	-.02 (.074)
Powerless*V-Strict			-.001 (.010)	-.002 (.010)
Powerless*V-Lenient			-.003 (.021)	-.003 (.020)

Table 28. Continued

Random Effects	Variance Component	Variance Component	Variance Component	Variance Component
Intercept	.603***	.351***	.601***	.352***
Legitimacy	.229***	.207***	.226***	.208***
Powerlessness	.017***	.016***	.017***	.016***

\*p&lt;.05; \*\*p&lt;.01; \*\*\*p&lt;.001

Table 29. Student Negative Experiences Regressed on All Measures (Nonviolent Strict/Lenient and Drug Strict/Lenient Models)

Level 1 (N=5,339)	B (SE)	B (SE)	B (SE)	B (SE)
Black	-.37* (.144)	-.54*** (.148)	-.38* (.145)	-.54*** (.149)
Hispanic	-.19 (.130)	-.43** (.135)	-.19 (.129)	-.44** (.135)
Asian	-.02 (.146)	-.10 (.144)	-.02 (.146)	-.10 (.144)
Native American	.28 (.159)	.25 (.163)	.28 (.158)	.25 (.162)
Sex	-.19** (.060)	-.19** (.059)	-.19** (.060)	-.19** (.059)
Age	-.02 (.062)	-.12 (.061)	-.02 (.062)	-.02 (.061)
SES	-.08 (.048)	-.02 (.049)	-.08 (.048)	-.02 (.049)
Disorder	.03*** (.004)	.02*** (.004)	.03*** (.004)	.02*** (.004)
Parental Involvement	.01 (.015)	.02 (.015)	.01 (.015)	.02 (.015)
Legitimacy	-.66*** (.048)	-.65*** (.047)	-.66*** (.048)	-.65*** (.047)
Powerlessness	.18*** (.014)	.19*** (.014)	.18*** (.014)	.19*** (.014)
Level 2 (N=389)				
School Type		.72*** (.157)		.73*** (.154)
School Size		.001 (.033)		-.003 (.033)
Racial Composition		.14*** (.028)		.14*** (.028)
Free/Reduced Lunch		-.004 (.028)		-.002 (.028)
Special Education		.003 (.008)		.004 (.008)
Student-Teacher Ratio		.05*** (.011)		.04*** (.011)
Urban		-.10 (.132)		-.10 (.132)
Rural		-.07 (.096)		-.07 (.097)
School Disorder		.05*** (.011)		.05*** (.011)
Nonviolent Strict	-.02 (.019)	-.01 (.015)		
Nonviolent Lenient	.01 (.018)	.01 (.016)		
Drug Strict			-.02 (.022)	-.02 (.018)
Drug Lenient			.01 (.030)	.03 (.025)

Table 29. Continued

Cross-Level Interactions	B (SE)	B (SE)	B (SE)	B (SE)
Legitimacy*NV-Strict	-.01 (.016)	-.003 (.016)		
Legitimacy*NV-Lenient	-.01 (.019)	-.01 (.018)		
Powerless*NV-Strict	.01 (.005)	.01 (.005)		
Powerless*NV-Lenient	-.01* (.004)	-.01 (.004)		
Legitimacy*D-Strict			-.01 (.021)	-.01 (.020)
Legitimacy*D-Lenient			-.01 (.027)	-.01 (.027)
Powerless*D-Strict			.004 (.007)	.003 (.007)
Powerless*D-Lenient			-.01 (.008)	-.003 (.008)
Random Effects	Variance Component	Variance Component	Variance Component	Variance Component
Intercept	.603***	.354***	.601***	.349***
Legitimacy	.227***	.207***	.231***	.206***
Powerlessness	.017***	.016***	.017***	.016***

\*p<.05; \*\*p<.01; \*\*\*p<.001

## SAFETY

### *Unconditional Model*

The unconditional model for student perceptions of safety indicates that average scores significantly varied across schools ( $b = 3.40$ ,  $p < .001$ ), justifying the use of multilevel modeling for further analyses. The ICC for this model is .13, indicating that differences between schools account for 13% of the total variability in students' perceived safety scores. To examine this outcome variable, I built the models in the same fashion previously used to examine student morale and negative experiences.

### *Examining Effects of Discipline*

Upon examining effects of the discipline measures on student safety, findings show that punishment severity for violent offenses had a significant and negative effect on student safety.

This suggests that as punishment severity increases for violent offenses, perceived safety among students decreases. Additionally, strict punishment consistency for violent offenses had a significant and negative effect on student safety, while lenient punishment consistency for violent offenses had a significant and positive effect. These findings suggest that as strict punishments for violent offenses are less consistent, perceived student safety decreases, while lack of consistency among lenient punishments for violent offenses is associated with increases in perceived student safety. Table 30 displays the findings of these models.

Table 30. Student Safety Regressed on Discipline Measures

Level 2 (N=389)	B (SE)	Variance Component (Intercept)
General Severity	-.002 (.002)	.059***
General Consistency	.000 (.03)	
Violent Severity	-.02* (.008)	.058***
Violent Consistency	.001 (.013)	
Nonviolent Severity	-.005 (.005)	.059***
Nonviolent Consistency	.002 (.006)	
Drug Severity	.001 (.004)	.059***
Drug Consistency	-.004 (.006)	
General Strict	-.004 (.003)	.059***
General Lenient	.003 (.004)	
Violent Strict	-.03* (.012)	.055***
Violent Lenient	.07** (.024)	
Nonviolent Strict	-.002 (.005)	.059***
Nonviolent Lenient	.000 (.006)	
Drug Strict	-.005 (.006)	.059***
Drug Lenient	.002 (.009)	

\*p<.05; \*\*p<.01; \*\*\*p<.001

### *Incorporating Intervening Variables*

Results of models incorporating intervening variables show that both legitimacy and powerlessness have significant effects on safety. Legitimacy has a positive effect, suggesting that as perceived fairness of rules increases, so too does perceived student safety. Powerlessness has a negative effect, suggesting that as students feel a greater or increased sense of powerlessness, perceived safety decreases. Similar findings remain from prior models regarding the effects of discipline measures. Variance components suggest that in these models, the intercept (safety) and legitimacy significantly vary across schools, but powerlessness does not; this means that the random effects of the intercept and legitimacy are significant, but random effects for powerlessness are not. Table 31 displays the results of these models.

Table 31. Student Safety Regressed on Discipline Measures and Intervening Variables

Level 1 (N=5,339)	B (SE)	Variance Component
Legitimacy	.10*** (.014)	
Powerlessness	-.06*** (.004)	
Level 2 (N=389)		
General Severity	-.002 (.002)	
General Consistency	.001 (.030)	
Random Effects		
Intercept		.046***
Legitimacy		.016**
Powerlessness		.001
Violent Severity	-.02** (.007)	
Violent Consistency	.005 (.013)	
Random Effects		
Intercept		.045***
Legitimacy		.016**
Powerlessness		.001

Table 31. Continued

Level 2 (N=389)	B (SE)	Variance Component
Nonviolent Severity	-.004 (.004)	
Nonviolent Consistency	.003 (.005)	
Random Effects		
Intercept		.046***
Legitimacy		.016**
Powerlessness		.001
Drug Severity	.000 (.004)	
Drug Consistency	-.003 (.006)	
Random Effects		
Intercept		.046***
Legitimacy		.016**
Powerlessness		.001
General Strict	-.003 (.002)	
General Lenient	.002 (.003)	
Random Effects		
Intercept		.046***
Legitimacy		.016**
Powerlessness		.001
Violent Strict	-.02* (.011)	
Violent Lenient	.06** (.023)	
Random Effects		
Intercept		.044***
Legitimacy		.016**
Powerlessness		.001
Nonviolent Strict	-.003 (.005)	
Nonviolent Lenient	.000 (.005)	
Random Effects		
Intercept		.046***
Legitimacy		.016**
Powerlessness		.001
Drug Strict	-.003 (.006)	

Table 31. Continued

Level 2 (N=389)	B (SE)	Variance Component
Drug Lenient	.000 (.009)	
Random Effects		
Intercept		.046***
Legitimacy		.016**
Powerlessness		.001

\*p<.05; \*\*p<.01; \*\*\*p<.001

### *Incorporating Controls and Cross-Level Interactions*

Findings of interest regarding the full student safety models show that punishment severity for violent offenses had a significant and negative impact on perceived safety and that significant interactions existed between legitimacy and lenient punishment consistency (for all offenses) as well as lenient punishment consistency for violent offenses. These findings suggest that as punishment severity for violent offenses increases, perceived student safety decreases. Furthermore, legitimacy conditions the relationship between perceived safety and lenient punishment consistency for all offenses as well as lenient punishments for violent offenses.<sup>32</sup> These interaction terms are negative, indicating that increases in legitimacy weakens the effect of lenient punishment consistency in general and for violent offenses on safety. In other words, when students feel that discipline is increasingly fair, the positive effects of lenient punishment consistency in general and for violent offenses on perceived safety are weakened. This means that even if lenient punishments are less consistent, they still improve perceived safety when students feel that discipline in their schools is fair.

<sup>32</sup> Legitimacy\*lenient punishments (general) was only significant upon inclusion of level-1 controls. Legitimacy\*violent lenient remained significant upon inclusion of level-2 controls.



Upon the incorporation of level-1 controls alone, results show that strict punishment consistency for violent offenses has a significant and negative impact on safety scores, suggesting that as strict punishments for violent offenses become less consistent, student perceptions of safety decrease. Lenient punishment consistency for violent offenses also had a significant and positive effect on safety, indicating that as lenient punishments for violent offenses become less consistent, perceived safety increases. However, these measures did not remain significant upon the inclusion of level-2 controls.

Among level-1 controls, student SES had a significant and positive impact on perceived safety, while perceptions of increased school disorder (among students) had a significant and negative impact (however, this fell out of significance upon incorporating level-2 controls). These findings suggest that perceived safety significantly increases as student SES increases, while perceived safety decreases as perceived school disorder increases. Upon the incorporation of level-2 controls, both Black and Hispanic students displayed significantly higher safety scores than Whites, suggesting that Black and Hispanic students felt significantly safer at school compared to their White counterparts.

Among level-2 controls, findings show that perceived safety significantly decreases as the percentage of racial minority students increase, as the percentage of students receiving special education services increases, and as perceived school disorder (among school administrators) increases. The effects for legitimacy and powerlessness also remained from prior models.

Finally, an interesting finding emerged in these models as related to individual student race and racial composition of schools. In the full models, Black and Hispanic students were found to have significantly higher perceived safety scores than Whites, suggesting that at the

individual level, Black and Hispanic students feel safer at school than their White counterparts. However, findings also suggest that at the school level, racial composition significantly impacts individual perceptions of safety, where increases in the percentage of racial minority students in a school significantly decreases perceived safety among students. Taken together, these findings demonstrate an interesting interplay of individual and school level effects regarding their impact on perceptions of safety among students. Tables 32-35 display the findings for these models.

Table 32. Student Safety Regressed on All Measures (General Severity/Consistency and Violent Severity/Consistency Models)

Level 1 (N=5,339)	B (SE)	B (SE)	B (SE)	B (SE)
Black	.06 (.046)	.12** (.047)	.06 (.046)	.12** (.047)
Hispanic	-.02 (.040)	.09* (.041)	-.02 (.040)	.09* (.041)
Asian	.002 (.033)	.04 (.032)	.005 (.033)	.04 (.032)
Native American	-.01 (.051)	-.01 (.050)	-.01 (.051)	-.01 (.050)
Sex	.03 (.017)	.03 (.017)	.03 (.017)	.03 (.017)
Age	-.03 (.018)	-.03 (.018)	-.03 (.018)	-.03 (.018)
SES	.06*** (.014)	.05*** (.015)	.06*** (.014)	.05*** (.015)
Disorder	-.003* (.001)	-.001 (.001)	-.003* (.001)	-.001 (.001)
Parental Involvement	.01 (.005)	.01 (.005)	.01 (.005)	.01 (.005)
Legitimacy	.10*** (.014)	.10*** (.013)	.10*** (.014)	.10*** (.013)
Powerlessness	-.05*** (.004)	-.06*** (.004)	-.05*** (.004)	-.06*** (.004)
Level 2 (N=389)				
School Type		-.04 (.039)		-.04 (.038)
School Size		-.01 (.010)		-.01 (.010)
Racial Composition		-.05*** (.008)		-.05*** (.008)
Free/Reduced Lunch		-.01 (.008)		-.01 (.008)
Special Education		-.01** (.002)		-.01** (.002)
Student-Teacher Ratio		-.005 (.003)		-.005 (.003)
Urban		.01 (.032)		.01 (.032)
Rural		.05 (.029)		.04 (.029)
School Disorder		-.02*** (.003)		-.02*** (.003)
General Severity	-.003 (.002)	-.003 (.002)		
General Consistency	.001 (.003)	.001 (.002)		

Table 32. Continued

Level 2 (N=389)	B (SE)	B (SE)	B (SE)	B (SE)
Violent Severity			-.02** (.007)	-.02* (.006)
Violent Consistency			.004 (.013)	.002 (.012)
Cross-Level Interactions				
Legitimacy*Severity	.001 (.002)	.000 (.002)		
Legitimacy*Consistency	-.001 (.002)	-.001 (.002)		
Powerless*Severity	.000 (.000)	.000 (.000)		
Powerless*Consistency	.000 (.001)	.000 (.001)		
Legitimacy*V-Severity			-.002 (.006)	-.002 (.006)
Legitimacy*V-Consistency			-.01 (.011)	-.01 (.011)
Powerless*V-Severity			.001 (.002)	.001 (.002)
Powerless*V-Consistency			.001 (.003)	.001 (.003)
Random Effects	Variance Component	Variance Component	Variance Component	Variance Component
Intercept	.042***	.022***	.040***	.022***
Legitimacy	.016**	.014**	.016**	.014**
Powerlessness	.001	.001	.001	.001

\*p&lt;.05; \*\*p&lt;.01; \*\*\*p&lt;.001

Table 33. Student Safety Regressed on All Measures (Nonviolent Severity/Consistency and Drug Severity/Consistency Models)

Level 1 (N=5,339)	B (SE)	B (SE)	B (SE)	B (SE)
Black	.05 (.046)	.12** (.047)	.05 (.046)	.12* (.047)
Hispanic	-.02 (.040)	.09* (.041)	-.02 (.040)	.09* (.041)
Asian	.001 (.033)	.04 (.032)	.002 (.033)	.04 (.032)
Native American	-.005 (.051)	-.004 (.050)	-.005 (.051)	-.005 (.050)
Sex	.03 (.017)	.03 (.017)	.03 (.017)	.03 (.017)
Age	-.03 (.018)	-.03 (.018)	-.03 (.018)	-.03 (.018)
SES	.06*** (.014)	.05*** (.015)	.06*** (.014)	.05*** (.015)
Disorder	-.003* (.001)	-.001 (.001)	-.003* (.001)	-.001 (.001)
Parental Involvement	.01 (.005)	.01 (.005)	.01 (.005)	.01 (.005)
Legitimacy	.10*** (.014)	.10*** (.013)	.10*** (.014)	.10*** (.013)
Powerlessness	-.05*** (.004)	-.06*** (.004)	-.05*** (.004)	-.06*** (.004)

Table 33. Continued

Level 2 (N=389)	B (SE)	B (SE)	B (SE)	B (SE)
School Type		-.04 (.039)		-.04 (.039)
School Size		-.01 (.010)		-.01 (.010)
Racial Composition		-.05*** (.008)		-.06*** (.008)
Free/Reduced Lunch		-.01 (.008)		-.01 (.008)
Special Education		-.01** (.002)		-.005** (.002)
Student-Teacher Ratio		-.005 (.003)		-.005 (.003)
Urban		.01 (.032)		.01 (.032)
Rural		.05 (.029)		.05 (.029)
School Disorder		-.02*** (.003)		-.02*** (.003)
Nonviolent Severity	-.01 (.004)	-.01 (.004)		
Nonviolent Consistency	.003 (.005)	.003 (.004)		
Drug Severity			-.001 (.004)	-.003 (.003)
Drug Consistency			-.003 (.006)	-.003 (.005)
Cross-Level Interactions				
Legitimacy*NV-Severity	.002 (.003)	.002 (.003)		
Legitimacy*NV-Consistency	.001 (.004)	.000 (.004)		
Powerless*NV-Severity	-.001 (.001)	.000 (.001)		
Powerless*NV-Consistency	.000 (.001)	.000 (.001)		
Legitimacy*D-Severity			.001 (.003)	.000 (.004)
Legitimacy*D-Consistency			-.01 (.006)	-.01 (.006)
Powerless*D-Severity			-.001 (.001)	.000 (.001)
Powerless*D-Consistency			-.001 (.001)	-.001 (.001)
Random Effects	Variance Component	Variance Component	Variance Component	Variance Component
Intercept	.042***	.022***	.042***	.023***
Legitimacy	.016**	.014**	.016**	.014**
Powerlessness	.001	.001	.001	.001

\*p&lt;.05; \*\*p&lt;.01; \*\*\*p&lt;.001

Table 34. Student Safety Regressed on All Measures (General Strict/Lenient and Violent

Strict/Lenient Models)

Level 1 (N=5,339)	B (SE)	B (SE)	B (SE)	B (SE)
Black	.05 (.046)	.12* (.047)	.06 (.047)	.12* (.048)
Hispanic	-.02 (.040)	.09* (.041)	-.01 (.041)	.09* (.041)

Table 34. Continued

Level 1 (N=5,339)	B (SE)	B (SE)	B (SE)	B (SE)
Asian	.003 (.033)	.04 (.032)	.01 (.033)	.04 (.032)
Native American	-.005 (.051)	-.004 (.050)	-.003 (.051)	-.003 (.050)
Sex	.03 (.017)	.03 (.017)	.03 (.017)	.03 (.017)
Age	-.03 (.018)	-.03 (.018)	-.03 (.018)	-.03 (.018)
SES	.06*** (.014)	.05*** (.015)	.06*** (.014)	.05*** (.015)
Disorder	-.003* (.001)	-.001 (.001)	-.003* (.001)	-.001 (.001)
Parental Involvement	.01 (.005)	.01 (.005)	.01 (.005)	.005 (.005)
Legitimacy	.10*** (.014)	.10*** (.013)	.10*** (.014)	.10*** (.013)
Powerlessness	-.05*** (.004)	-.06*** (.004)	-.05*** (.004)	-.06*** (.004)
Level 2 (N=389)				
School Type		-.03 (.038)		-.02 (.038)
School Size		-.01 (.010)		-.01 (.010)
Racial Composition		-.06*** (.008)		-.05*** (.008)
Free/Reduced Lunch		-.01 (.008)		-.01 (.008)
Special Education		-.005** (.002)		-.005** (.002)
Student-Teacher Ratio		-.005 (.003)		-.005 (.003)
Urban		.01 (.032)		.01 (.032)
Rural		.05 (.029)		.04 (.030)
School Disorder		-.02*** (.003)		-.02*** (.003)
General Strict	-.004 (.002)	-.003 (.002)		
General Lenient	.003 (.004)	.000 (.003)		
Violent Strict			-.03* (.011)	-.01 (.010)
Violent Lenient			.06** (.023)	.02 (.021)
Cross-Level Interactions				
Legitimacy*General Strict	.002 (.003)	.001 (.003)		
Legitimacy*General Lenient	-.01* (.003)	-.01 (.003)		
Powerless*General Strict	.000 (.001)	.000 (.001)		
Powerless*General Lenient	.000 (.001)	.000 (.001)		
Legitimacy*V-Strict			-.003 (.011)	-.003 (.011)
Legitimacy*V-Lenient			-.04* (.018)	-.04* (.018)
Powerless*V-Strict			.001 (.003)	.001 (.003)
Powerless*V-Lenient			.002 (.007)	.001 (.006)
Random Effects	Variance Component	Variance Component	Variance Component	Variance Component
Intercept	.042***	.023***	.040***	.022***
Legitimacy	.016**	.014**	.016**	.014**
Powerlessness	.001	.001	.001	.001

\*p&lt;.05; \*\*p&lt;.01; \*\*\*p&lt;.001

Table 35. Student Safety Regressed on All Measures (General Strict/Lenient and Violent Strict/Lenient Models)

Level 1 (N=5,339)	B (SE)	B (SE)	B (SE)	B (SE)
Black	.05 (.046)	.12* (.047)	.05 (.046)	.12* (.047)
Hispanic	-.02 (.040)	.09* (.041)	-.02 (.040)	.09* (.041)
Asian	.002 (.033)	.04 (.032)	.002 (.033)	.04 (.032)
Native American	-.005 (.051)	-.004 (.050)	-.005 (.051)	-.004 (.050)
Sex	.03 (.017)	.03 (.017)	.03 (.017)	.03 (.017)
Age	-.03 (.018)	-.03 (.018)	-.03 (.018)	-.03 (.018)
SES	.06*** (.014)	.05*** (.015)	.06*** (.014)	.05*** (.015)
Disorder	-.003* (.001)	-.001 (.001)	-.003* (.001)	-.001 (.001)
Parental Involvement	.01 (.005)	.01 (.005)	.01 (.005)	.01 (.005)
Legitimacy	.10*** (.014)	.10*** (.013)	.10*** (.014)	.10*** (.013)
Powerlessness	-.05*** (.004)	-.06*** (.004)	-.05*** (.004)	-.06*** (.004)
Level 2 (N=389)				
School Type		-.03 (.039)		-.03 (.038)
School Size		-.01 (.010)		-.01 (.010)
Racial Composition		-.06*** (.008)		-.06*** (.008)
Free/Reduced Lunch		-.01 (.008)		-.01 (.008)
Special Education		-.005** (.002)		-.005** (.002)
Student-Teacher Ratio		-.005 (.003)		-.005 (.003)
Urban		.01 (.032)		.01 (.032)
Rural		.05 (.029)		.05 (.029)
School Disorder		-.02*** (.003)		-.02*** (.003)
Nonviolent Strict	-.004 (.005)	-.004 (.004)		
Nonviolent Lenient	.000 (.005)	.000 (.005)		
Drug Strict			-.005 (.006)	-.005 (.005)
Drug Lenient			-.001 (.009)	-.005 (.008)
Cross-Level Interactions				
Legitimacy*NV-Strict	.01 (.005)	.01 (.005)		
Legitimacy*NV-Lenient	-.01 (.005)	-.01 (.005)		
Powerless*NV-Strict	-.001 (.001)	-.001 (.001)		
Powerless*NV-Lenient	.001 (.001)	.001 (.002)		
Legitimacy*D-Strict			.000 (.007)	.000 (.007)
Legitimacy*D-Lenient			-.01 (.007)	-.01 (.007)
Powerless*D-Strict			-.001 (.002)	-.001 (.002)
Powerless*D-Lenient			.000 (.002)	-.001 (.002)

Table 35. Continued

Random Effects	Variance Component	Variance Component	Variance Component	Variance Component
Intercept	.042***	.023***	.042***	.023***
Legitimacy	.016**	.014**	.016**	.014**
Powerlessness	.001	.001	.001	.001

\*p<.05; \*\*p<.01; \*\*\*p<.001

## CHAPTER V

### RESULTS: TEACHER MODELS

This section presents bivariate correlations for major variables of interest among teachers and schools, as well as the HLM results for the teacher models.

#### BIVARIATE CORRELATIONS: TEACHERS AND SCHOOLS

Prior to performing multivariate analyses, bivariate analyses were performed among dependent, intervening, and independent variables of interest among the teacher sample. Findings show many significant relationships among the variables of interest; however, many of these relationships are weak to moderate ( $r < .60$ ). Table 36 displays these results.



Table 36. Bivariate Correlations Among Dependent, Intervening, and Independent Variables of Interest: Teachers (N=2,086)

	Morale	Admin. Lead.	Disorder	Legit	Powerless
Morale					
Admin. Lead.	.58***				
Disorder	-.24***	-.29***			
Legit	.39***	.46***	-.38***		
Powerless	-.22***	-.16***	.27***	-.17***	
Severity	.04	.08***	-.11***	.05*	-.01
Consist	-.06**	.01	-.01	-.05*	.03
V-Sev	-.01	.03	-.004	.10***	.03
V-Consist	-.07**	-.02	-.02	-.04*	.04
NV-Sev	.05*	-.09***	-.14***	.03	-.002
NV-Consist	-.05*	.02	-.03	-.04	.01
D-Sev	.04	.06**	-.08***	.03	-.03
D-Consist	-.06**	.01	.02	-.06*	.04
Strict	-.004	.06**	-.06**	.003	-.02
Lenient	-.10***	-.06**	.07**	-.10***	.07**
V-Strict	-.06**	-.01	.06**	-.03	.03
V-Lenient	-.02	-.03	-.07**	-.03	.02
NV-Strict	.02	.07**	-.13***	.02	-.02
NV-Lenient	-.09***	-.04	.10***	-.09***	.04
D-Strict	.000	.07**	-.02	-.002	-.03
D-Lenient	-.11***	-.08***	.05*	-.09***	.10***

\*p<.05, \*\*p<.01, \*\*\*p<.001

### *Morale*

Morale and administrative leadership had a significant and positive relationship, suggesting that as administrative leadership scores increase, teacher morale increases. Morale displayed a significant and negative relationship with school disorder, suggesting that as perceived school disorder increases, morale decreases. There were also significant relationships between morale and the intervening measures: as perceived legitimacy increases, morale increases; and as perceived powerlessness increases, morale decreases.

Despite being weakly associated, results displayed significant correlations between morale and many of the discipline variables. A positive relationship existed between punishment severity for nonviolent offenses and morale, suggesting that as severity of punishment increases for nonviolent offenses, teacher morale increases. All punishment consistency variables had significant negative relationships with morale, suggesting that as punishment decisions become less consistent, teacher morale decreases. Lenient punishment consistency (all offenses), lenient punishment consistency (no action, detention, ISS) for nonviolent offenses, and lenient punishment consistency for drug offenses also had significant negative relationships with morale, suggesting that as lenient punishment decisions become less consistent, teacher morale decreases. Finally, morale had a significant negative relationship with strict punishment consistency (OSS, transfer, expulsion) for violent offenses, suggesting that as strict punishments for violent offenses become less consistent, teacher morale decreases.

### *Administrative Leadership*

Administrative leadership displayed significant relationships with primary teacher measures including disorder, legitimacy, and powerlessness. As perceptions of school disorder increase and as perceptions of powerlessness increase, administrative leadership scores decrease, while administrative leadership scores increase as perceptions of legitimacy increase. Among the severity measures, administrative leadership had a significant and positive relationship with punishment severity (all measures) and punishment severity for drug offenses, as well as a significant negative relationship with punishment severity for nonviolent offenses. These findings suggest that as punishment severity generally and for drug offenses increase, teacher

perceptions of administrative leadership increase; while teacher perceptions of administrative leadership decrease as punishment severity for nonviolent offenses increases.

Among the strict and lenient range measures, administrative leadership had significant and positive relationships with strict punishment consistency for all offenses, nonviolent offenses, and drug offenses. These findings suggest that as strict punishments for these offenses become less consistent, perceived administrative leadership increases. Finally, there were significant and negative relationships between administrative leadership and lenient punishment consistency for all offenses and drug offenses; suggesting that as lenient punishments for these offenses become less consistent, perceived administrative leadership decreases.

### *School Disorder*

School disorder had a negative relationship with legitimacy and a positive relationship with powerlessness, suggesting that as teacher perceive rules to be more consistently enforced, they perceive school disorder to be lower; and as teachers feel an increased sense of powerlessness, they perceive an increased level of school disorder. Among the severity variables, school disorder had significant and negative relationships with punishment severity for all offenses and punishment severity for nonviolent offenses. These findings suggest that as punishment severity for these offenses increase, teachers perceive a decreased level of school disorder.

There were also a number of significant relationships between school disorder and the strict/lenient consistency measures. Among the strict punishment consistency measures, school disorder had negative and significant relationships with strict punishment consistency for all offenses and nonviolent offenses, as well as a positive and significant relationship with strict

punishment consistency for violent offenses. This suggests that as strict punishments for all offenses and for nonviolent offenses become less consistent, perceived school disorder decreases; and as strict punishments for violent offenses become less consistent, perceived school disorder increases.

Among the lenient punishment measures, there were significant and positive relationships between school disorder and lenient punishment consistency for all offenses, nonviolent offenses, and drug offenses, as well as a significant negative relationship with lenient punishment consistency for violent offenses. These findings suggest that as lenient punishments for all offenses, nonviolent offenses, and drug offenses become less consistent, perceived school disorder increases, and as lenient punishment consistency for violent offenses become less consistent, perceived school disorder decreases.

### *Legitimacy and Powerlessness*

The intervening variables of legitimacy and powerlessness had a negative relationship, suggesting that as teachers perceive that rules are consistently enforced, they feel less powerless.<sup>33</sup> Legitimacy also displayed a positive relationship with punishment severity for all offenses and violent offenses, suggesting that as punishment severity increases, perceptions of consistent rule enforcement also increase. There were also significant negative relationships between punishment consistency for all offenses, violent offenses, and drug offenses, suggesting that as schools become less consistent in punishments for these offenses, perceived legitimacy of rule enforcement decreases among teachers. Significant and negative relationships also exist between lenient punishment consistency for all offenses, nonviolent offenses, and drug offenses,

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<sup>33</sup> In the teacher sample, legitimacy was conceptualized with the item: “rules for student behavior are consistently enforced at this school.”

suggesting that as lenient punishments for these offenses become less consistent, perceived legitimacy decreases. Finally, powerless displayed significant and positive relationships between lenient punishment consistency for all offenses and drug offenses, suggesting that as lenient punishments for these offenses become less consistent, teachers feel increasingly powerless.

## INTRODUCING MULTILEVEL RESULTS

The following sections introduce the results for the multilevel models for the teacher sample. I built the multilevel models gradually to determine whether there were any significant changes in coefficients from one model to the next. I first estimated unconditional models for all dependent variables of interest to examine whether teacher perceptions of morale, administrative leadership, and/or school disorder significantly varied across schools. Additional models incorporated the level-2 discipline variables, level-1 intervening variables of perceived legitimacy and powerlessness, the level-1 and level-2 controls, and finally the cross-level interaction terms (one at a time) between discipline and legitimacy/powerlessness, creating the full models. The results of analyses are presented as unstandardized regression coefficients and standard errors. Below, I outline the method by which I created the teacher models.

### *Building Multilevel Models: Teacher Outcomes*

- Step 1: Estimate unconditional model for morale, administrative leadership, and disorder
- Step 2: Examine effects of level-2 discipline variables on morale, administrative leadership, and disorder, in sets of 2
  - Severity and consistency (general, all offenses)
  - Violent severity and violent consistency

- Nonviolent severity and nonviolent consistency
- Drug severity and drug consistency
- Strict and lenient punishments (general, all offenses)
- Violent strict and violent lenient
- Nonviolent strict and nonviolent lenient
- Drug strict and drug lenient
- Step 3: Add intervening variables to step 2 models
- Step 4: Add all level-1 controls to step 3 models
  - Step 4a: Examine effects of cross-level interactions individually
- Step 5: Add all level-2 controls to step 4 models
  - Step 5a: Examine effects of cross-level interactions individually

## MORALE

### *Unconditional Model*

The unconditional model for teacher morale tests whether multilevel modeling is needed or appropriate for further analyses (Raudenbush and Bryk 2002); Garson 2012). For teacher morale, the unconditional model indicates that average morale scores significantly vary across schools ( $b = 23.63$ ,  $p < .001$ ), justifying the use of multilevel modeling for further analyses. This is further confirmed by the ICC, which for this model is .36, indicating that differences between schools account for about 36% of the variability in teachers' morale scores.

*Examining Effects of Discipline*

After estimating the unconditional model, I examined the effects of the discipline variables on teacher perceptions of morale, using two variables at a time as in the student models. Findings indicate that punishment severity for all offenses and nonviolent offenses each have a significant and positive effect on morale, suggesting that as punishment severity increases, so too does teacher morale. In addition, punishment consistency for all offenses and nonviolent offenses had a significant and negative effect on morale, indicating that as punishments become less consistent, whether for all offenses or nonviolent offenses, teacher morale decreases. Finally, lenient punishment consistency for drug offenses had a significant and negative impact on morale, suggesting that as lenient punishments for drug offenses become less consistent, teacher morale decreases. Findings for these models may be found in Table 37.

Table 37. Teacher Morale Regressed on Discipline Measures<sup>34</sup>

Level 2 (N=160)	B (SE)	Variance Component (Intercept)
General Severity	.05* (.023)	3.77***
General Consistency	-.07* (.033)	
Violent Severity	.07 (.095)	3.87***
Violent Consistency	-.21 (.126)	
Nonviolent Severity	.12* (.051)	3.77***
Nonviolent Consistency	-.14* (.069)	
Drug Severity	.07 (.043)	3.83***
Drug Consistency	-.13 (.087)	
General Strict	.002 (.030)	3.83***
General Lenient	-.08 (.043)	
Violent Strict	-.17 (.116)	3.88***
Violent Lenient	-.09 (.275)	
Nonviolent Strict	.03 (.051)	3.84***
Nonviolent Lenient	-.11 (.074)	
Drug Strict	-.02 (.083)	3.82***
Drug Lenient	-.23* (.109)	

\*p<.05; \*\*p<.01; \*\*\*p<.001

### *Incorporating Intervening Variables*

The intervening variables were incorporated in the same fashion as in the student models, where legitimacy and powerlessness varied randomly in HLM to estimate the variability between teachers for these measures by their school grouping, and because the level-2 units (schools) are sampled from a larger population to which findings will be generalized (Snijders and Berkhof 2007). The results display that legitimacy had a significant and positive impact on teacher

<sup>34</sup> Results are for 8 separate models. The variance component represents the intercept variance for each model.



morale, while powerlessness had a significant and negative impact on morale. This suggests that as teachers perceive rules to be more consistently enforced, morale increases; and as teachers feel increasingly powerless, morale decreases. In these models, none of the discipline measures reached significance; however, the variance components reveal that there is significant variability between schools for the intercept (morale) as well as legitimacy and powerlessness, displaying significant random effects for these measures. Table 38 displays the results for these models.

Table 38. Teacher Morale Regressed on Discipline Measures and Intervening Variables<sup>35</sup>

Level 1 (N=2,086)	B (SE)	Variance Component
Legitimacy	1.26*** (.180)	
Powerlessness	-.18*** (.046)	
Level 2 (N=160)		
General Severity	.01 (.027)	
General Consistency	-.02 (.031)	
Random Effects		
Intercept		2.64***
Legitimacy		3.73***
Powerlessness		.219***
Violent Severity	-.09 (.078)	
Violent Consistency	.03 (.115)	
Random Effects		
Intercept		2.62***
Legitimacy		3.72***
Powerlessness		.220***
Nonviolent Severity	.08 (.058)	

<sup>35</sup> Findings are for 8 separate models, each including legitimacy and powerlessness. For the sake of space, findings are listed in the same table because the coefficients for legitimacy and powerlessness did not change significantly between models.

Table 38. Continued

Level 2 (N=160)	B (SE)	Variance Component
Nonviolent Consistency	-.08 (.065)	
Random Effects		
Intercept		2.58***
Legitimacy		3.73***
Powerlessness		.219***
Drug Severity	.000 (.049)	
Drug Consistency	-.01 (.067)	
Random Effects		
Intercept		2.65***
Legitimacy		3.73***
Powerlessness		.220***
General Strict	.01 (.026)	
General Lenient	-.04 (.039)	
Random Effects		
Intercept		2.63***
Legitimacy		3.73***
Powerlessness		.219***
Violent Strict	-.07 (.101)	
Violent Lenient	.13 (.198)	
Random Effects		
Intercept		2.63***
Legitimacy		3.73***
Powerlessness		.220***
Nonviolent Strict	.03 (.050)	
Nonviolent Lenient	-.07 (.064)	
Random Effects		
Intercept		2.62***
Legitimacy		3.72***
Powerlessness		.220***
Drug Strict	.01 (.063)	
Drug Lenient	-.09 (.088)	

Table 38. Continued

Random Effects	B (SE)	Variance Component
Intercept		2.63***
Legitimacy		3.74***
Powerlessness		.219***

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

### *Incorporating Controls and Cross-Level Interactions*

The final steps for the teacher morale models involved incorporating the level-1 and level-2 control variables, which were included to account for common demographic characteristics relevant to both individual teacher contexts and school level contexts. In addition, I incorporated cross-level interactions to determine whether the intervening variables conditioned the effects of discipline on morale. Interaction terms were incorporated individually for clarity of interpretation.

Upon incorporation of the control variables, none of the discipline measures had significant direct effects. However, there were many significant interaction terms that may be interpreted regardless of whether direct effects for each part of the term reached significance in the model (Hox 2010). When incorporating level-1 controls only, there was a significant positive interaction between legitimacy and nonviolent punishment severity and a significant negative interaction between powerlessness and nonviolent punishment consistency. These findings suggest that legitimacy conditions the effect of punishment severity for nonviolent offenses on morale (strengthening the effect) while powerlessness conditions the effect of punishment consistency for nonviolent offenses on morale (weakening the effect). In other words, when teachers feel that rules are more consistently enforced, this improves the positive effect of nonviolent punishment severity on morale. On the other hand, when teachers feel increasingly

powerless, this weakens the negative effect of nonviolent punishment consistency on morale – suggesting that less consistency in punishments for nonviolent offenses still reduces morale even when teachers feel increasingly powerless, though this effect is not as strong as the individual direct effect of this discipline measure.

In the full models only, incorporating both level-1 and level-2 controls, there was also a significant positive interaction between legitimacy and punishment consistency for drug offenses, suggesting that increases in legitimacy strengthen the effect of punishment consistency for drug offenses on morale. In other words, increases in legitimacy strengthen the negative effect of drug punishment consistency on morale, suggesting that as teachers feel that rules are more consistently enforced display lower levels of morale in schools where punishment is less consistent for drug offenses.

Additionally, there were many significant interaction terms between legitimacy and discipline variables in both level-1 control only and the full models, including: general severity, general consistency, violent severity, violent consistency, nonviolent severity, nonviolent consistency, violent strict, and nonviolent lenient. These significant terms were all positive, suggesting that legitimacy enhances the effects (whether positive or negative) of each of these discipline measures on teacher morale. For instance, the interaction legitimacy\*general severity suggests that as teachers feel that rules are enforced more consistently, they have higher morale scores as punishments in general are more severe, since this interaction strengthens the positive effect of the discipline variable. In addition, the interaction legitimacy\*general consistency suggests that as teachers feel that rules are enforced more consistently and as schools are less consistent in punishments for all offenses, teachers have lower morale scores, since this interaction strengthens the negative effect of this discipline variable on morale. There were also

significant interaction terms between powerlessness and discipline variables, including: general consistency, violent consistency, nonviolent severity, nonviolent consistency, drug consistency, and nonviolent strict. These terms were all negative, suggesting that powerlessness weakens the effects (whether positive or negative) of these discipline measures on teacher morale. For example, the interaction powerless\*general consistency demonstrates that less consistency in punishment in general still reduces morale even when teachers feel increasingly powerless, though this effect is not as strong as the individual direct effect of this discipline measure. In addition, the interaction powerless\*nonviolent severity demonstrates that when teachers feel increasingly powerless, increasing the severity of nonviolent punishment still improves teacher morale, just not as much as the direct effect of this discipline variable.

Among the level-1 controls, teacher age had a significant and positive effect on morale, indicating that teacher morale increases with age. In addition, teachers with EdS degrees had significantly lower morale scores compared to teachers with Bachelors degrees. Among the level-2 controls, free/reduced lunch had a significant and positive impact on morale, indicating that as the percentage of students receiving free/reduced lunch in schools increases, so too does teacher morale. Additionally, schools in rural areas displayed significantly lower teacher morale scores than schools in suburban areas. Finally, effects for legitimacy and powerlessness remained from prior models, as well as the significant random effects. Tables 39-42 display the results for these models.

Table 39. Teacher Morale Regressed on All Measures (General Severity/Consistency and Violent Severity/Consistency Models)<sup>36</sup>

Level 1 (N=2,086)	B (SE)	B (SE)	B (SE)	B (SE)
Black	.24 (.437)	.31 (.407)	.25 (.443)	.31 (.415)
Hispanic	-.23 (.703)	-.06 (.767)	-.24 (.691)	-.09 (.756)
Other	-.63 (.880)	-.73 (.867)	-.61 (.883)	-.71 (.867)
Sex	-.18 (.284)	-.17 (.286)	-.18 (.284)	-.17 (.285)
Age	.22* (.098)	.21* (.099)	.22* (.098)	.21* (.099)
Masters	-.47 (.286)	-.48 (.287)	-.48 (.287)	-.48 (.287)
EdS	-.99* (.403)	-.98* (.404)	-.98* (.402)	-.98* (.403)
PhD	-.95 (.695)	-.97 (.697)	-.93 (.695)	-.95 (.696)
Years Taught	-.04 (.071)	-.04 (.071)	-.04 (.070)	-.04 (.071)
Legitimacy	1.20*** (.185)	1.19*** (.182)	1.20*** (.184)	1.20*** (.183)
Powerlessness	-.18*** (.046)	-.20*** (.047)	-.18*** (.046)	-.19*** (.047)
Level 2 (N=160)				
School Type		-.48 (.498)		-.53 (.475)
School Size		.16 (.093)		.14 (.092)
Racial Composition		-.18 (.100)		-.13 (.104)
Free/Reduced Lunch		.22* (.099)		.21* (.099)
Special Education		.001 (.025)		.003 (.025)
Student-Teacher Ratio		.03 (.029)		.04 (.029)
Urban		-.10 (.388)		-.09 (.371)
Rural		-1.03** (.375)		-1.07** (.379)
School Disorder		-.02 (.038)		-.03 (.039)
General Severity	.01 (.026)	.001 (.026)		
General Consistency	-.02 (.030)	-.02 (.028)		
Violent Severity			-.10 (.078)	-.12 (.090)
Violent Consistency			.01 (.118)	.03 (.116)
Cross-Level Interactions				
Legitimacy*Severity	.04* (.020)	.04* (.021)		
Legitimacy*Consistency	.05* (.022)	.05* (.022)		
Powerless*Severity	-.01 (.005)	-.01 (.005)		
Powerless*Consistency	-.01* (.006)	-.01* (.006)		
Legitimacy*V-Severity			.23* (.091)	.23* (.090)
Legitimacy*V-Consistency			.25* (.104)	.26* (.103)

<sup>36</sup> Coefficients for predictor variables and variance components represent models without cross-level interactions. Cross-level interactions were entered individually, and results reflect this for the interaction terms. There were no significant changes in coefficients for predictor variables nor variance components upon the incorporation of interaction terms, unless otherwise noted. For the sake of space, results are presented this way.

Table 39. Continued

Cross-Level Interactions	B (SE)	B (SE)	B (SE)	B (SE)
Powerless*V-Severity			-.02 (.024)	-.02 (.024)
Powerless*V-Consistency			-.06* (.030)	-.07* (.030)
Random Effects	Variance Component	Variance Component	Variance Component	Variance Component
Intercept	2.60***	2.49***	2.57***	2.46***
Legitimacy	3.92***	3.90***	3.91***	3.88***
Powerlessness	.214***	.215***	.215***	.216***

\*p&lt;.05; \*\*p&lt;.01; \*\*\*p&lt;.001

Table 40. Teacher Morale Regressed on All Measures (Nonviolent Severity/Consistency and Drug Severity/Consistency Models)

Level 1 (N=2,086)	B (SE)	B (SE)	B (SE)	B (SE)
Black	.24 (.437)	.32 (.406)	.23 (.441)	.30 (.413)
Hispanic	-.25 (.783)	-.06 (.777)	-.24 (.701)	-.07 (.763)
Other	-.62 (.878)	-.71 (.866)	-.63 (.882)	-.73 (.868)
Sex	-.18 (.284)	-.17 (.285)	-.18 (.285)	-.17 (.286)
Age	.21* (.098)	.21* (.099)	.22* (.098)	.21* (.099)
Masters	-.47 (.286)	-.48 (.287)	-.48 (.287)	-.48 (.287)
EdS	-.99* (.403)	-.98* (.403)	-.98* (.403)	-.98* (.404)
PhD	-.94 (.695)	-.97 (.697)	-.95 (.697)	-.97 (.699)
Years Taught	-.04 (.070)	-.04 (.071)	-.04 (.070)	-.04 (.071)
Legitimacy	1.20*** (.184)	1.20*** (.183)	1.20*** (.185)	1.19*** (.184)
Powerlessness	-.18*** (.046)	-.19*** (.047)	-.18*** (.046)	-.19*** (.047)
Level 2 (N=160)				
School Type		-.35 (.516)		-.52 (.488)
School Size		.15 (.094)		.15 (.092)
Racial Composition		-.20* (.098)		-.17 (.097)
Free/Reduced Lunch		.20* (.100)		.22* (.098)
Special Education		.001 (.024)		.002 (.029)
Student-Teacher Ratio		.03 (.029)		.03 (.029)
Urban		-.03 (.399)		-.09 (.382)
Rural		-.99** (.376)		-1.03** (.368)
School Disorder		-.01 (.038)		-.02 (.038)
Nonviolent Severity	.07 (.056)	.06 (.056)		

Table 40. Continued

Level 2 (N=160)	B (SE)	B (SE)	B (SE)	B (SE)
Nonviolent Consistency	-.08 (.063)	-.09 (.060)		
Drug Severity			-.005 (.047)	-.02 (.045)
Drug Consistency			-.03 (.066)	-.03 (.063)
Cross-Level Interactions				
Legitimacy*NV-Severity	.08* (.038)	.07 (.038)		
Legitimacy*NV-Consistency	.09* (.040)	.10* (.039)		
Powerless*NV-Severity	-.02* (.009)	-.02* (.009)		
Powerless*NV-Consistency	-.02* (.012)	-.02 (.012)		
Legitimacy*D-Severity			.06 (.044)	.06 (.045)
Legitimacy*D-Consistency			.13 (.066)	.13* (.065)
Powerless*D-Severity			-.01 (.012)	-.01 (.012)
Powerless*D-Consistency			-.03* (.016)	-.03* (.016)
Random Effects	Variance Component	Variance Component	Variance Component	Variance Component
Intercept	2.54***	2.44***	2.61***	2.49***
Legitimacy	3.92***	3.89***	3.93***	3.90***
Powerlessness	.214***	.215***	.214***	.216***

\*p&lt;.05; \*\*p&lt;.01; \*\*\*p&lt;.001

Table 41. Teacher Morale Regressed on All Measures (General Strict/Lenient and Violent Strict/Lenient Models)

Level 1 (N=2,086)	B (SE)	B (SE)	B (SE)	B (SE)
Black	.24 (.436)	.32 (.405)	.24 (.439)	.31 (.410)
Hispanic	-.25 (.700)	-.07 (.766)	-.22 (.699)	-.06 (.763)
Other	-.64 (.879)	-.73 (.865)	-.62 (.881)	-.73 (.866)
Sex	-.18 (.285)	-.17 (.286)	-.18 (.285)	-.16 (.286)
Age	.21* (.098)	.21* (.099)	.22* (.098)	.21* (.099)
Masters	-.47 (.287)	-.47 (.287)	-.48 (.287)	-.48 (.287)
EdS	-.98* (.403)	-.98* (.403)	-.98* (.403)	-.98* (.404)
PhD	-.95 (.694)	-.97 (.696)	-.94 (.693)	-.97 (.695)
Years Taught	-.04 (.070)	-.04 (.071)	-.04 (.070)	-.04 (.071)
Legitimacy	1.20*** (.185)	1.19*** (.184)	1.20*** (.185)	1.19*** (.184)
Powerlessness	-.18*** (.046)	-.19*** (.047)	-.18*** (.046)	-.19*** (.047)



Table 41. Continued

Level 2 (N=160)	B (SE)	B (SE)	B (SE)	B (SE)
School Type		-.46 (.491)		-.43 (.489)
School Size		.15 (.093)		.15 (.092)
Racial Composition		-.19 (.099)		-.17 (.099)
Free/Reduced Lunch		.22* (.100)		.21* (.099)
Special Education		.001 (.025)		.001 (.025)
Student-Teacher Ratio		.03 (.029)		.03 (.029)
Urban		-.04 (.384)		-.09 (.375)
Rural		-1.02** (.366)		-1.03** (.370)
School Disorder		-.01 (.038)		-.02 (.039)
General Strict	.000 (.027)	-.003 (.028)		
General Lenient	-.04 (.038)	-.05 (.034)		
Violent Strict			-.08 (.108)	-.09 (.101)
Violent Lenient			.09 (.209)	.06 (.199)
Cross-Level Interactions				
Legitimacy*General Strict	.05 (.030)	.05 (.030)		
Legitimacy*General Lenient	.07 (.044)	.07 (.044)		
Powerless*General Strict	-.01 (.009)	-.01 (.009)		
Powerless*General Lenient	-.02 (.012)	-.02 (.012)		
Legitimacy*V-Strict			.28* (.132)	.29* (.131)
Legitimacy*V-Lenient			-.07 (.293)	-.06 (.293)
Powerless*V-Strict			-.04 (.039)	.04 (.035)
Powerless*V-Lenient			-.10 (.071)	-.11 (.071)
Random Effects	Variance Component	Variance Component	Variance Component	Variance Component
Intercept	2.59***	2.47***	2.59***	2.49***
Legitimacy	3.92***	3.90***	3.92***	3.89***
Powerlessness	.214***	.215***	.214***	.216***

\*p&lt;.05; \*\*p&lt;.01; \*\*\*p&lt;.001

Table 42. Teacher Morale Regressed on All Measures (Nonviolent Strict/Lenient and Drug Strict/Lenient Models)

Level 1 (N=2,086)	B (SE)	B (SE)	B (SE)	B (SE)
Black	.24 (.437)	.32 (.407)	.25 (.435)	.32 (.404)
Hispanic	-.26 (.701)	-.08 (.766)	-.24 (.700)	-.06 (.765)

Table 42. Continued

Level 1 (N=2,086)	B (SE)	B (SE)	B (SE)	B (SE)
Other	-.64 (.879)	-.73 (.865)	-.63 (.880)	-.73 (.865)
Sex	-.18 (.284)	-.17 (.286)	-.18 (.285)	-.17 (.286)
Age	.21* (.098)	.21* (.099)	.22* (.098)	.21* (.099)
Masters	-.47 (.287)	-.47 (.287)	-.47 (.288)	-.47 (.288)
EdS	-.99* (.403)	-.98* (.403)	-.98* (.403)	-.97* (.403)
PhD	-.94 (.693)	-.97 (.695)	-.95 (.694)	-.98 (.696)
Years Taught	-.04 (.071)	-.04 (.071)	-.04 (.070)	-.04 (.071)
Legitimacy	1.20*** (.185)	1.19*** (.184)	1.20*** (.185)	1.19*** (.184)
Powerlessness	-.18*** (.046)	-.19*** (.047)	-.18*** (.046)	-.19*** (.047)
Level 2 (N=160)				
School Type		-.41 (.513)		-.48 (.485)
School Size		.15 (.094)		.15 (.092)
Racial Composition		-.19* (.097)		-.18 (.098)
Free/Reduced Lunch		.21* (.100)		.22* (.101)
Special Education		.000 (.025)		.000 (.025)
Student-Teacher Ratio		.03 (.030)		.03 (.029)
Urban		-.04 (.393)		-.02 (.380)
Rural		-1.02** (.369)		-1.02** (.365)
School Disorder		-.01 (.038)		-.02 (.039)
Nonviolent Strict	.02 (.050)	.003 (.056)		
Nonviolent Lenient	-.07 (.062)	-.08 (.058)		
Drug Strict			-.01 (.066)	-.01 (.066)
Drug Lenient			-.09 (.089)	-.13 (.085)
Cross-Level Interactions				
Legitimacy*NV-Strict	.05 (.057)	.05 (.057)		
Legitimacy*NV-Lenient	.14* (.060)	.14* (.060)		
Powerless*NV-Strict	-.03* (.016)	-.03* (.016)		
Powerless*NV-Lenient	-.01 (.020)	-.01 (.020)		
Legitimacy*D-Strict			.12 (.075)	.13 (.074)
Legitimacy*D-Lenient			.06 (.136)	.05 (.136)
Powerless*D-Strict			-.02 (.023)	-.02 (.023)
Powerless*D-Lenient			-.05 (.029)	-.05 (.029)
Random Effects	Variance Component	Variance Component	Variance Component	Variance Component
Intercept	2.58***	2.47***	2.60***	2.47***
Legitimacy	3.92***	3.89***	3.93***	3.90***
Powerlessness	.215***	.216***	.214***	.215***

\*p&lt;.05; \*\*p&lt;.01; \*\*\*p&lt;.001

## ADMINISTRATIVE LEADERSHIP

### *Unconditional Model*

The null model for administrative leadership indicates that average scores significantly varied across schools ( $b = 11.70$ ,  $p < .001$ ), justifying the use of multilevel modeling for further analyses. The ICC for this model is .35, indicating that differences between schools account for 35% of the total variability in teachers' administrative leadership scores. To examine this outcome variable, I built the models in the same fashion previously used to examine teacher morale.

### *Examining Effects of Discipline*

Upon examining the effects of discipline on teacher perceptions of administrative leadership, findings show that punishment severity for all offenses and for nonviolent offenses each had a significant and positive impact on administrative leadership scores. This suggests that as punishments become more severe, whether for all offenses or nonviolent offenses, perceptions of administrative leadership increase or improve. Table 43 displays the results for this set of models.

Table 43. Teacher Administrative Leadership Regressed on Discipline Measures

Level 2 (N=160)	B (SE)	Variance Component (Intercept)
General Severity	.03* (.014)	1.59***
General Consistency	-.02 (.020)	
Violent Severity	.07 (.058)	1.62***
Violent Consistency	-.07 (.103)	
Nonviolent Severity	.07* (.030)	1.59***
Nonviolent Consistency	-.04 (.038)	
Drug Severity	.04 (.029)	1.61***
Drug Consistency	-.01 (.057)	
General Strict	.03 (.020)	1.60***
General Lenient	-.03 (.026)	
Violent Strict	-.01 (.085)	1.63***
Violent Lenient	-.07 (.161)	
Nonviolent Strict	.05 (.036)	1.61***
Nonviolent Lenient	-.03 (.043)	
Drug Strict	.07 (.053)	1.58***
Drug Lenient	-.10 (.067)	

\*p<.05; \*\*p<.01; \*\*\*p<.001

### *Incorporating Intervening Variables*

When incorporating the intervening variables, findings show that legitimacy has a significant and positive effect on administrative leadership, while powerlessness has a significant and negative effect. These findings suggest that as perceived legitimacy of rule enforcement increases, so too do perceptions of administrative leadership; while increases in perceived powerlessness predict decreases in perceived administrative leadership. In these models, punishment severity for all offenses falls out of significance, but there were significant positive

effects for punishment severity (nonviolent), and strict punishment consistency for all offenses, nonviolent offenses, and drug offenses. These findings suggest that as punishment severity increases for nonviolent offenses, teachers rate administrative leadership higher; and as strict punishments for all offenses, nonviolent offenses, and drug offenses become less consistent, teachers also rate administrative leadership higher. Finally, the variance components reveal that there is significant variability between schools for the intercept (administrative leadership) as well as legitimacy and powerlessness, displaying significant random effects. Table 44 displays the results for these models.

Table 44. Teacher Administrative Leadership Regressed on Discipline Measures and Intervening Variables

Level 1 (N=2,086)	B (SE)	Variance Component
Legitimacy	1.06*** (.110)	
Powerlessness	-.06* (.031)	
Level 2 (N=160)		
General Severity	.02 (.013)	
General Consistency	.001 (.016)	
Random Effects		
Intercept		1.07***
Legitimacy		1.39***
Powerlessness		.113***
Violent Severity	-.001 (.050)	
Violent Consistency	.07 (.079)	
Random Effects		
Intercept		1.11***
Legitimacy		1.40***
Powerlessness		.113***

Table 44. Continued

Level 2 (N=160)	B (SE)	Variance Component
Nonviolent Severity	.07* (.028)	
Nonviolent Consistency	-.03 (.031)	
Random Effects		
Intercept		1.06***
Legitimacy		1.40***
Powerlessness		.113*** <sup>37</sup>
Drug Severity	.03 (.027)	
Drug Consistency	.05 (.040)	
Random Effects		
Intercept		1.07***
Legitimacy		1.39***
Powerlessness		.114***
General Strict	.05** (.016)	
General Lenient	-.03 (.025)	
Random Effects		
Intercept		1.06***
Legitimacy		1.40***
Powerlessness		.113***
Violent Strict	.08 (.065)	
Violent Lenient	.01 (.154)	
Random Effects		
Intercept		1.11***
Legitimacy		1.40***
Powerlessness		.113***
Nonviolent Strict	.08* (.033)	
Nonviolent Lenient	-.02 (.035)	
Random Effects		
Intercept		1.07***
Legitimacy		1.41***
Powerlessness		.113***

<sup>37</sup> The coefficient for powerlessness in this model is .05.

Table 44. Continued

Level 2 (N=160)	B (SE)	Variance Component
Drug Strict	.11** (.035)	
Drug Lenient	-.05 (.066)	
Random Effects		
Intercept		1.05***
Legitimacy		1.40***
Powerlessness		.113***

\*p<.05; \*\*p<.01; \*\*\*p<.001

### *Incorporating Controls and Cross-Level Interactions*

Upon the incorporation of the control variables, effects for legitimacy and powerlessness remain from prior models. Among the discipline measures, there were significant and positive effects for nonviolent punishment severity, as well as strict punishment consistency for all offenses, nonviolent offenses, and drug offenses. These findings suggest that as punishments become more severe for nonviolent offenses, teacher perceptions of administrative leadership increase; in addition, as strict punishments become less consistent for all offenses, nonviolent offenses, and drug offenses, teacher perceptions of administrative leadership increase. There were no significant interaction terms in this set of models.

Among level-1 controls, Hispanic teachers had significantly lower administrative leadership scores than White teachers, and teachers with EdS degrees had significantly lower administrative leadership scores than teachers with Bachelors degrees. Depending on the specific model, Black teachers also had significantly lower administrative leadership scores than White teachers. None of the school level controls reached significance in these models. The variance components additionally reflect that the intercept (administrative leadership) as well as

legitimacy and powerlessness significantly varied between schools, indicating the significance of random effects. Findings for these models are displayed in Tables 45-48.

Table 45. Teacher Administrative Leadership Regressed on All Measures (General Severity/Consistency and Violent Severity/Consistency Models)

Level 1 (N=2,086)	B (SE)	B (SE)	B (SE)	B (SE)
Black	-.40* (.191)	-.40* (.199)	-.38 (.195)	-.39 (.201)
Hispanic	-.51** (.170)	-.55** (.192)	-.52** (.180)	-.57** (.203)
Other	-.34 (.459)	-.40 (.469)	-.34 (.458)	-.40 (.468)
Sex	.28 (.172)	.30 (.172)	.28 (.172)	.29 (.172)
Age	.12 (.065)	.12 (.065)	.12 (.066)	.12 (.065)
Masters	.16 (.189)	.16 (.191)	.16 (.189)	.16 (.191)
EdS	-.47* (.232)	-.47* (.232)	-.47* (.233)	-.48* (.233)
PhD	-.17 (.484)	-.18 (.486)	-.17 (.487)	-.17 (.487)
Years Taught	-.09 (.052)	-.09 (.053)	-.09 (.053)	-.09 (.053)
Legitimacy	1.03*** (.111)	1.03*** (.112)	1.03*** (.112)	1.03*** (.112)
Powerlessness	-.07* (.033)	-.08* (.034)	-.07* (.033)	-.08* (.034)
Level 2 (N=160)				
School Type		.21 (.333)		.07 (.334)
School Size		.03 (.074)		.03 (.072)
Racial Composition		.04 (.062)		.07 (.064)
Free/Reduced Lunch		.04 (.068)		.04 (.069)
Special Education		-.01 (.017)		-.01 (.017)
Student-Teacher Ratio		.01 (.021)		.01 (.021)
Urban		.42 (.279)		.36 (.279)
Rural		-.11 (.240)		-.16 (.241)
School Disorder		-.03 (.026)		-.03 (.025)
General Severity	.02 (.014)	.02 (.013)		
General Consistency	-.002 (.017)	.001 (.017)		
Violent Severity			.01 (.052)	-.03 (.049)
Violent Consistency			.05 (.083)	.08 (.082)
Cross-Level Interactions				
Legitimacy*Severity	-.002 (.010)	-.002 (.010)		
Legitimacy*Consistency	-.002 (.012)	-.002 (.012)		
Powerless*Severity	-.001 (.003)	-.001 (.003)		



Table 45. Continued

Cross-Level Interactions	B (SE)	B (SE)	B (SE)	B (SE)
Powerless*Consistency	-.002 (.004)	-.002 (.004)		
Legitimacy*V-Severity			.06 (.043)	.06 (.043)
Legitimacy*V-Consistency			.03 (.086)	.03 (.090)
Powerless*V-Severity			.000 (.015)	.000 (.015)
Powerless*V-Consistency			.003 (.021)	.002 (.021)
Random Effects	Variance Component	Variance Component	Variance Component	Variance Component
Intercept	1.11***	1.13***	1.14***	1.15***
Legitimacy	1.34***	1.34***	1.35***	1.35***
Powerlessness	.122***	.122***	.121***	.121***

\*p&lt;.05; \*\*p&lt;.01; \*\*\*p&lt;.001

Table 46. Teacher Administrative Leadership Regressed on All Measures (Nonviolent Severity/Consistency and Drug Severity/Consistency Models)

Level 1 (N=2,086)	B (SE)	B (SE)	B (SE)	B (SE)
Black	-.40* (.195)	-.41* (.204)	-.37 (.188)	-.39* (.196)
Hispanic	-.54** (.167)	-.57** (.186)	-.50** (.176)	-.55** (.197)
Other	-.33 (.453)	-.39 (.465)	-.34 (.457)	-.40 (.470)
Sex	.28 (.172)	.29 (.172)	.28 (.172)	.30 (.172)
Age	.12 (.066)	.12 (.065)	.12 (.065)	.12 (.065)
Masters	.16 (.189)	.16 (.190)	.16 (.189)	.16 (.191)
EdS	-.47* (.232)	-.48* (.232)	-.46* (.233)	-.47* (.233)
PhD	-.17 (.484)	-.17 (.486)	-.17 (.485)	-.18 (.486)
Years Taught	-.09 (.053)	-.09 (.053)	-.09 (.052)	-.09 (.052)
Legitimacy	1.03*** (.112)	1.03*** (.112)	1.03*** (.111)	1.03*** (.112)
Powerlessness	-.07* (.033)	-.08* (.034)	-.07* (.033)	-.08* (.034)
Level 2 (N=160)				
School Type		.32 (.348)		.13 (.325)
School Size		.02 (.073)		.04 (.073)
Racial Composition		.03 (.064)		.04 (.061)
Free/Reduced Lunch		.03 (.067)		.04 (.069)
Special Education		-.01 (.017)		-.01 (.017)
Student-Teacher Ratio		.01 (.021)		.01 (.020)
Urban		.49 (.285)		.37 (.275)

Table 46. Continued

Level 2 (N=160)	B (SE)	B (SE)	B (SE)	B (SE)
Rural		-.11 (.240)		-.12 (.237)
School Disorder		-.03 (.027)		-.03 (.026)
Nonviolent Severity	.07* (.029)	.06* (.029)		
Nonviolent Consistency	-.03 (.032)	-.03 (.032)		
Drug Severity			.03 (.027)	.02 (.026)
Drug Consistency			.04 (.041)	.04 (.042)
Cross-Level Interactions				
Legitimacy*NV-Severity	-.02 (.020)	-.02 (.025)		
Legitimacy*NV-Consistency	-.01 (.020)	-.01 (.020)		
Powerless*NV-Severity	.001 (.007)	.001 (.007)		
Powerless*NV-Consistency	-.01 (.008)	-.01 (.007)		
Legitimacy*D-Severity			.002 (.024)	.003 (.024)
Legitimacy*D-Consistency			.01 (.040)	.004 (.040)
Powerless*D-Severity			-.01 (.008)	-.01 (.008)
Powerless*D-Consistency			-.01 (.013)	-.01 (.013)
Random Effects	Variance Component	Variance Component	Variance Component	Variance Component
Intercept	1.10***	1.11***	1.11***	1.13***
Legitimacy	1.35***	1.34***	1.34***	1.34***
Powerlessness	.121***	.121***	.122***	.122***

\*p&lt;.05; \*\*p&lt;.01; \*\*\*p&lt;.001

Table 47. Teacher Administrative Leadership Regressed on All Measures (General Strict/Lenient and Violent Strict/Lenient Models)

Level 1 (N=2,086)	B (SE)	B (SE)	B (SE)	B (SE)
Black	-.39* (.191)	-.39 (.200)	-.39* (.196)	-.39 (.201)
Hispanic	-.54** (.177)	-.58** (.197)	-.52** (.181)	-.56** (.200)
Other	-.34 (.450)	-.40 (.462)	-.35 (.456)	-.41 (.468)
Sex	.27 (.172)	.28 (.172)	.28 (.172)	.29 (.173)
Age	.12 (.066)	.12 (.065)	.12 (.066)	.12 (.065)
Masters	.17 (.189)	.17 (.191)	.16 (.189)	.16 (.191)
EdS	-.46* (.232)	-.47* (.232)	-.47* (.233)	-.48* (.232)
PhD	-.16 (.485)	-.17 (.485)	-.16 (.487)	-.18 (.487)
Years Taught	-.09 (.053)	-.09 (.053)	-.09 (.053)	-.09 (.053)

Table 47. Continued

Level 1 (N=2,086)	B (SE)	B (SE)	B (SE)	B (SE)
Legitimacy	1.03*** (.112)	1.03*** (.112)	1.03*** (.112)	1.03*** (.112)
Powerlessness	-.07* (.033)	-.08* (.034)	-.07* (.033)	-.08* (.034)
Level 2 (N=160)				
School Type		.16 (.352)		.06 (.359)
School Size		.02 (.072)		.04 (.073)
Racial Composition		.03 (.064)		.05 (.064)
Free/Reduced Lunch		.04 (.068)		.04 (.068)
Special Education		-.01 (.017)		-.01 (.017)
Student-Teacher Ratio		.02 (.021)		.01 (.021)
Urban		.49 (.274)		.36 (.280)
Rural		-.11 (.235)		-.14 (.241)
School Disorder		-.03 (.027)		-.03 (.026)
General Strict	.04* (.017)	.04* (.017)		
General Lenient	-.03 (.026)	-.03 (.025)		
Violent Strict			.07 (.068)	.06 (.072)
Violent Lenient			-.01 (.160)	.01 (.169)
Cross-Level Interactions				
Legitimacy*General Strict	.004 (.016)	.003 (.016)		
Legitimacy*General Lenient	-.02 (.025)	-.01 (.025)		
Powerless*General Strict	-.001 (.006)	-.002 (.006)		
Powerless*General Lenient	-.004 (.008)	-.004 (.008)		
Legitimacy*V-Strict			.09 (.077)	.09 (.078)
Legitimacy*V-Lenient			-.20 (.144)	-.19 (.143)
Powerless*V-Strict			.01 (.021)	.01 (.021)
Powerless*V-Lenient			-.03 (.050)	-.03 (.048)
Random Effects	Variance Component	Variance Component	Variance Component	Variance Component
Intercept	1.10***	1.11***	1.14***	1.15***
Legitimacy	1.36***	1.36***	1.35***	1.34***
Powerlessness	.122***	.121***	.121***	.121***

\*p&lt;.05; \*\*p&lt;.01; \*\*\*p&lt;.001

Table 48. Teacher Administrative Leadership Regressed on All Measures (Nonviolent Strict/Lenient and Drug Strict/Lenient Models)

Level 1 (N=2,086)	B (SE)	B (SE)	B (SE)	B (SE)
Black	-.40* (.199)	-.41* (.209)	-.36* (.181)	-.37 (.188)
Hispanic	-.55** (.177)	-.59** (.194)	-.52** (.177)	-.56** (.199)
Other	-.34 (.450)	-.41 (.462)	-.34 (.449)	-.40 (.461)
Sex	.27 (.172)	.29 (.172)	.27 (.171)	.28 (.172)
Age	.12 (.066)	.12 (.065)	.12 (.065)	.12 (.065)
Masters	.16 (.189)	.16 (.191)	.17 (.190)	.17 (.191)
EdS	-.47* (.232)	-.48* (.232)	-.46* (.232)	-.47* (.232)
PhD	-.16 (.485)	-.17 (.486)	-.16 (.485)	-.18 (.484)
Years Taught	-.09 (.053)	-.09 (.053)	-.09 (.052)	-.09 (.052)
Legitimacy	1.03*** (.112)	1.03*** (.112)	1.03*** (.112)	1.03*** (.112)
Powerlessness	-.07* (.033)	-.08* (.034)	-.07* (.033)	-.08* (.034)
Level 2 (N=160)				
School Type		.28 (.352)		.07 (.354)
School Size		.01 (.072)		.03 (.072)
Racial Composition		.04 (.064)		.04 (.063)
Free/Reduced Lunch		.03 (.066)		.04 (.070)
Special Education		-.01 (.017)		-.01 (.017)
Student-Teacher Ratio		.02 (.021)		.02 (.021)
Urban		.51 (.279)		.46 (.268)
Rural		-.12 (.236)		-.12 (.234)
School Disorder		-.02 (.027)		-.03 (.027)
Nonviolent Strict	.07* (.033)	.08* (.035)		
Nonviolent Lenient	-.03 (.037)	-.02 (.037)		
Drug Strict			.10** (.037)	.10** (.037)
Drug Lenient			-.05 (.069)	-.08 (.069)
Cross-Level Interactions				
Legitimacy*NV-Strict	-.02 (.033)	-.02 (.033)		
Legitimacy*NV-Lenient	-.01 (.039)	-.01 (.039)		
Powerless*NV-Strict	-.002 (.011)	-.003 (.013)		
Powerless*NV-Lenient	-.01 (.012)	-.01 (.013)		
Legitimacy*D-Strict			.03 (.051)	.02 (.040)
Legitimacy*D-Lenient			-.05 (.064)	-.05 (.063)
Powerless*D-Strict			-.01 (.015)	-.01 (.015)
Powerless*D-Lenient			.001 (.022)	.000 (.023)

Table 48. Continued

Random Effects	Variance Component	Variance Component	Variance Component	Variance Component
Intercept	1.11***	1.12***	1.10***	1.09***
Legitimacy	1.36***	1.35***	1.35***	1.35***
Powerlessness	.121***	.122***	.122***	.122***

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

## SCHOOL DISORDER

### *Unconditional Model*

The unconditional model for teacher perceptions of school disorder indicates that average scores significantly varied across schools ( $b = 24.72$ ,  $p < .001$ ), justifying the use of multilevel modeling for further analyses. The ICC for this model is .56, indicating that differences between schools account for 56% of the total variability in teachers' perceived school disorder scores. To examine this outcome variable, I built the models in the same fashion previously used to examine teacher morale and administrative leadership.

### *Examining Effects of Discipline*

Upon examining effects of the discipline measures on teacher perceptions of school disorder, findings show that punishment severity for all offenses and nonviolent offenses, as well as strict punishment consistency for nonviolent offenses, each had significant and negative effects on school disorder. These findings suggest that as punishment severity in general and for nonviolent offenses increase, perceptions of school disorder decrease; and as strict punishments for nonviolent offenses become less consistent, perceptions of school disorder also decrease. Table 49 displays the results for these models.

Table 49. Teacher School Disorder Regressed on Discipline Measures

Level 2 (N=160)	B (SE)	Variance Component (Intercept)
General Severity	-.12* (.052)	22.87***
General Consistency	.09 (.072)	
Violent Severity	.02 (.203)	23.47***
Violent Consistency	.03 (.302)	
Nonviolent Severity	-.03* (.118)	22.56***
Nonviolent Consistency	.21 (.141)	
Drug Severity	-.18 (.102)	23.07***
Drug Consistency	.17 (.183)	
General Strict	-.07 (.070)	23.13***
General Lenient	.12 (.093)	
Violent Strict	.17 (.247)	23.09***
Violent Lenient	-.83 (.544)	
Nonviolent Strict	-.30* (.142)	22.53***
Nonviolent Lenient	.23 (.139)	
Drug Strict	-.05 (.162)	23.31***
Drug Lenient	.27 (.259)	

\*p<.05; \*\*p<.01; \*\*\*p<.001

### *Incorporating Intervening Variables*

Results of models incorporating the intervening variables show that both legitimacy and powerlessness have significant effects on perceived school disorder among teachers. Legitimacy has a negative effect, suggesting that as teachers perceive that rules are enforced more consistently, perceptions of school disorder decrease; and powerlessness has a positive effect, suggesting that as teachers feel increasingly powerless, perceptions of school disorder increase. The same discipline measures are significant from the previous models, along with punishment

severity for drug offenses that displays a significant and negative relationship with school disorder. This indicates that as punishment severity for drug offenses increases, teacher perceptions of school disorder decrease. In addition, variance components indicate significant random effects for the intercept (school disorder) as well as legitimacy and powerlessness, demonstrating that there is significant variation in these measures between schools. Table 50 displays the results for these models.

Table 50. Teacher School Disorder Regressed on Discipline Measures and Intervening Variables

Level 1 (N=2,086)	B (SE)	Variance Component
Legitimacy	-2.32*** (.286)	
Powerlessness	.04*** (.091)	
Level 2 (N=160)		
General Severity	-.10* (.046)	
General Consistency	.05 (.062)	
Random Effects		
Intercept		17.45***
Legitimacy		9.03***
Powerlessness		.997***
Violent Severity	.22 (.186)	
Violent Consistency	-.30 (.268)	
Random Effects		
Intercept		17.67***
Legitimacy		9.02***
Powerlessness		.993***
Nonviolent Severity	-.28* (.108)	
Nonviolent Consistency	.18 (.126)	
Random Effects		
Intercept		17.10***
Legitimacy		9.07***

Table 50. Continued

Random Effects	B (SE)	Variance Component
Powerlessness		.992***
Drug Severity	-.18* (.088)	
Drug Consistency	.11 (.149)	
Random Effects		
Intercept		17.49***
Legitimacy		9.01***
Powerlessness		.999***
General Strict	-.08 (.060)	
General Lenient	.08 (.090)	
Random Effects		
Intercept		17.57***
Legitimacy		9.03***
Powerlessness		.996***
Violent Strict	-.03 (.208)	
Violent Lenient	-.89 (.564)	
Random Effects		
Intercept		17.62***
Legitimacy		8.95***
Powerlessness		.990***
Nonviolent Strict	-.27* (.119)	
Nonviolent Lenient	.16 (.128)	
Random Effects		
Intercept		17.18***
Legitimacy		9.01***
Powerlessness		.992***
Drug Strict	-.08 (.136)	
Drug Lenient	.15 (.238)	
Random Effects		
Intercept		17.76***
Legitimacy		9.01***



Table 50. Continued

Random Effects	B (SE)	Variance Component
Powerlessness		.996***

\*p<.05; \*\*p<.01; \*\*\*p<.001

### *Incorporating Controls and Cross-Level Interactions*

Findings of interest regarding the full models for teacher perceptions of school disorder reveal that effects for legitimacy and powerlessness remain similar from prior models. Upon the incorporation of level-1 controls alone, punishment severity for all offenses and drug offenses, as well as strict punishment consistency for nonviolent offenses each have a significant and negative impact on perceptions of school disorder. These findings suggest that as punishment severity in general and for drug offenses increases, perceptions of school disorder decrease; and as strict punishments for nonviolent offenses becomes less consistent, perceptions of school disorder also decrease. However, these findings do not remain upon the incorporation of level-2 controls.

Upon incorporating level-2 controls, punishment severity for nonviolent offenses has a significant and negative impact on perceptions of school disorder, suggesting that as punishment severity for nonviolent offenses increases, perceived school disorder decreases. In addition, there is a significant and negative interaction between legitimacy and punishment consistency for drug offenses. This suggests that increases in legitimacy weaken the impact of punishment consistency for drug offenses on perceptions of school disorder. However, this interaction demonstrated interesting findings, considering that in the level-1 control models only, drug punishment consistency had a positive effect on perceived school disorder, while in the full model this measure had a negative effect on perceived school disorder. As the interaction term in

both models was negative, this suggests that upon the incorporation of level-1 controls alone, legitimacy weakens the positive effect of drug punishment consistency on perceived school disorder – or in other words, when teachers feel that school rules are enforced more consistently, *schools'* lack of consistency in punishments for drug offenses still has a positive impact on perceived school disorder, though this impact is weaker than the direct effect of drug punishment consistency alone. In the full models, legitimacy weakens the negative impact of drug punishment consistency on perceived school disorder, suggesting that when teachers feel that school rules are enforced more consistently, schools' lack of consistency in punishments for drug offenses still has a negative impact on perceived school disorder, though this impact is weaker than the direct effect of this punishment measure alone. In this instance, I would argue that the full model findings should receive precedence, demonstrating that perceived school disorder among teachers is reduced as teachers feel that school rules are more consistently enforced and punishments for drug offenses are less consistent.

Among the controls, teachers of “other race” have significantly higher school disorder scores than White teachers (inclusion of level-1 controls only), and age displays a significant and negative effect on perceived school disorder. This suggests that as teachers get older, they perceive significantly less school disorder. At the school level, public schools are associated with significantly higher school disorder scores among teachers than private schools. As the percentage of racial minority students in a school increases and as student-teacher ratios increase, teacher perceptions of school disorder also increase. Finally, schools in rural locations have significantly lower school disorder scores than schools in suburban locations. Variance components reveal that the intercept (school disorder) as well as legitimacy and powerlessness

significantly vary across schools, displaying significant random effects. Tables 51-54 display the results for these models.

Table 51. Teacher School Disorder Regressed on All Measures (General Severity/Consistency and Violent Severity/Consistency Models)

Level 1 (N=2,086)	B (SE)	B (SE)	B (SE)	B (SE)
Black	1.09 (.927)	.60 (.937)	1.06 (.928)	.57 (.936)
Hispanic	2.38 (1.33)	1.87 (1.28)	2.39 (1.30)	1.92 (1.25)
Other	1.23* (.505)	.89 (.573)	1.19* (.525)	.86 (.584)
Sex	-.82 (.440)	-.79 (.425)	-.81 (.440)	-.77 (.425)
Age	-.59** (.183)	-.58** (.181)	-.60** (.183)	-.59** (.180)
Masters	.18 (.464)	.13 (.452)	.19 (.465)	.13 (.453)
EdS	.40 (.543)	.36 (.530)	.39 (.543)	.36 (.530)
PhD	1.33 (1.53)	1.22 (1.53)	1.30 (1.52)	1.20 (1.52)
Years Taught	.21 (.135)	.21 (.132)	.21 (.136)	.21 (.132)
Legitimacy	-2.16*** (.282)	-2.16*** (.268)	-2.18*** (.282)	-2.17*** (.268)
Powerlessness	.38*** (.092)	.35*** (.088)	.38*** (.092)	.35*** (.088)
Level 2 (N=160)				
School Type		3.09*** (.748)		3.49*** (.770)
School Size		.07 (.181)		.08 (.178)
Racial Composition		.83*** (.178)		.74*** (.178)
Free/Reduced Lunch		.40 (.210)		.40 (.207)
Special Education		.08 (.062)		.07 (.060)
Student-Teacher Ratio		.13* (.057)		.12* (.058)
Urban		.07 (.659)		.20 (.656)
Rural		-1.47* (.715)		-1.38 (.723)
School Disorder		.08 (.063)		.09 (.063)
General Severity	-.10* (.046)	-.04 (.035)		
General Consistency	.07 (.063)	.02 (.052)		
Violent Severity			.18 (.183)	.14 (.125)
Violent Consistency			-.21 (.275)	-.26 (.228)
Cross-Level Interactions				
Legitimacy*Severity	-.01 (.031)	-.005 (.029)		
Legitimacy*Consistency	-.06 (.035)	-.06 (.033)		
Powerless*Severity	.01 (.009)	.01 (.009)		

Table 51. Continued

Cross-Level Interactions	B (SE)	B (SE)	B (SE)	B (SE)
Powerless*Consistency	-.004 (.014) <sup>38</sup>	-.004 (.014)		
Legitimacy*V-Severity			-.14 (.140)	-.13 (.135)
Legitimacy*V-Consistency			-.33 (.242)	-.33 (.229)
Powerless*V-Severity			.02 (.040)	.02 (.038)
Powerless*V-Consistency			-.02 (.056)	-.02 (.053)
Random Effects	Variance Component	Variance Component	Variance Component	Variance Component
Intercept	16.21***	8.60***	16.49***	8.62***
Legitimacy	8.57***	7.63***	8.55***	7.64***
Powerlessness	1.06***	.955***	1.06***	.954***

\*p<.05; \*\*p<.01; \*\*\*p<.001

Table 52. Teacher School Disorder Regressed on All Measures (Nonviolent Severity/Consistency and Drug Severity/Consistency Models)

Level 1 (N=2,086)	B (SE)	B (SE)	B (SE)	B (SE)
Black	1.10 (.945)	.60 (.960)	1.08 (.919)	.58 (.933)
Hispanic	2.44 (1.34)	1.91 (1.30)	2.36 (1.32)	1.87 (1.26)
Other	1.20* (.511)	.85 (.580)	1.24* (.502)	.89 (.575)
Sex	-.82 (.439)	-.78 (.424)	-.83 (.440)	-.78 (.425)
Age	-.59** (.183)	-.58** (.181)	-.60** (.183)	-.59** (.181)
Masters	.18 (.464)	.13 (.452)	.18 (.464)	.13 (.453)
EdS	.40 (.542)	.36 (.528)	.40 (.543)	.35 (.530)
PhD	1.29 (1.52)	1.18 (1.52)	1.34 (1.53)	1.22 (1.53)
Years Taught	.20 (.135)	.20 (.132)	.21 (.134)	.21 (.132)
Legitimacy	-2.17*** (.282)	-2.17*** (.268)	-2.16*** (.282)	-2.17*** (.267)
Powerlessness	.38*** (.092)	.35*** (.088)	.38*** (.093)	.35*** (.088)
Level 2 (N=160)				
School Type		2.79*** (.743)		3.28*** (.758)
School Size		.10 (.178)		.06 (.180)
Racial Composition		.86*** (.177)		.81*** (.173)
Free/Reduced Lunch		.43* (.210)		.40 (.209)
Special Education		.08 (.063)		.08 (.062)
Student-Teacher Ratio		.13* (.056)		.13* (.057)

<sup>38</sup> Upon inclusion of interaction term, general severity falls out of significance.

Table 52. Continued

Level 2 (N=160)	B (SE)	B (SE)	B (SE)	B (SE)
Urban		-.13 (.691)		.16 (.657)
Rural		-1.49* (.717)		-1.45* (.718)
School Disorder		.07 (.059)		.08 (.062)
Nonviolent Severity	-.26* (.103)	-.20* (.077)		
Nonviolent Consistency	.18 (.122)	.17 (.090)		
Drug Severity			-.18* (.086)	-.04 (.061)
Drug Consistency			.16 (.151)	-.03 (.116)
Cross-Level Interactions				
Legitimacy*NV-Severity	.03 (.055)	.03 (.052)		
Legitimacy*NV-Consistency	-.09 (.060)	-.08 (.057)		
Powerless*NV-Severity	.02 (.018)	.01 (.017)		
Powerless*NV-Consistency	-.01 (.023)	-.01 (.022)		
Legitimacy*D-Severity			-.04 (.069)	-.03 (.065)
Legitimacy*D-Consistency			-.20* (.102)	-.20* (.096)
Powerless*D-Severity			.04 (.020)	.04 (.019)
Powerless*D-Consistency			-.01 (.030)	-.001 (.027)
Random Effects	Variance Component	Variance Component	Variance Component	Variance Component
Intercept	15.95***	8.34***	16.22***	8.66***
Legitimacy	8.61***	7.65***	8.56***	7.62***
Powerlessness	1.06***	.947***	1.07***	.956***

\*p&lt;.05; \*\*p&lt;.01; \*\*\*p&lt;.001

Table 53. Teacher School Disorder Regressed on All Measures (General Strict/Lenient and Violent Strict/Lenient Models)

Level 1 (N=2,086)	B (SE)	B (SE)	B (SE)	B (SE)
Black	1.08 (.929)	.57 (.943)	1.05 (.929)	.58 (.933)
Hispanic	2.42 (1.32)	1.93 (1.28)	2.36 (1.31)	1.90 (1.26)
Other	1.23* (.520)	.90 (.589)	1.19* (.516)	.89 (.579)
Sex	-.81 (.441)	-.76 (.425)	-.82 (.441)	-.77 (.426)
Age	-.60** (.183)	-.58** (.181)	-.60** (.183)	-.59** (.180)
Masters	.18 (.466)	.11 (.453)	.19 (.465)	.12 (.453)
EdS	.40 (.543)	.35 (.529)	.40 (.543)	.35 (.529)
PhD	1.31 (1.52)	1.20 (1.52)	1.31 (1.52)	1.22 (1.52)

Table 53. Continued

Level 1 (N=2,086)	B (SE)	B (SE)	B (SE)	B (SE)
Years Taught	.21 (.135)	.20 (.132)	.21 (.136)	.21 (.132)
Legitimacy	-2.17*** (.282)	-2.17*** (.268)	-2.17*** (.281)	-2.17*** (.268)
Powerlessness	.38*** (.093)	.35*** (.088)	.38*** (.092)	.35*** (.088)
Level 2 (N=160)				
School Type		3.19*** (.759)		3.54*** (.801)
School Size		.09 (.179)		.05 (.182)
Racial Composition		.85*** (.171)		.81*** (.174)
Free/Reduced Lunch		.39 (.208)		.38 (.210)
Special Education		.08 (.063)		.07 (.062)
Student-Teacher Ratio		.13* (.058)		.13* (.057)
Urban		-.11 (.690)		.17 (.658)
Rural		-1.48* (.703)		-1.49* (.721)
School Disorder		.07 (.062)		.09 (.062)
General Strict	-.07 (.061)	-.08 (.040)		
General Lenient	.08 (.089)	.10 (.067)		
Violent Strict			.03 (.213)	-.19 (.176)
Violent Lenient			-.75 (.573)	.14 (.441)
Cross-Level Interactions				
Legitimacy*General Strict	-.06 (.051)	-.05 (.049)		
Legitimacy*General Lenient	-.08 (.067)	-.09 (.064)		
Powerless*General Strict	.01 (.016)	.01 (.015)		
Powerless*General Lenient	-.02 (.018)	-.02 (.017)		
Legitimacy*V-Strict			-.28 (.253)	-.27 (.225)
Legitimacy*V-Lenient			-.25 (.444)	-.26 (.415)
Powerless*V-Strict			-.04 (.059)	-.04 (.056)
Powerless*V-Lenient			.09 (.135)	.08 (.128)
Random Effects	Variance Component	Variance Component	Variance Component	Variance Component
Intercept	16.38***	8.38***	16.45***	8.61***
Legitimacy	8.57***	7.64***	8.48***	7.63***
Powerlessness	1.06***	.953***	1.06***	.955***

\*p&lt;.05; \*\*p&lt;.01; \*\*\*p&lt;.001

Table 54. Teacher School Disorder Regressed on All Measures (Nonviolent Strict/Lenient and Drug Strict/Lenient Models)

Level 1 (N=2,086)	B (SE)	B (SE)	B (SE)	B (SE)
Black	1.10 (.940)	.61 (.951)	1.07 (.926)	.55 (.937)
Hispanic	2.47 (1.33)	1.95 (1.28)	2.40 (1.31)	1.90 (1.27)
Other	1.24* (.524)	.90 (.591)	1.22* (.516)	.90 (.583)
Sex	-.81 (.440)	-.77 (.425)	-.81 (.441)	-.77 (.425)
Age	-.59** (.183)	-.58** (.181)	-.60** (.183)	-.58** (.181)
Masters	.17 (.465)	.12 (.453)	.18 (.466)	.11 (.453)
EdS	.40 (.542)	.36 (.529)	.40 (.544)	.35 (.530)
PhD	1.30 (1.52)	1.19 (1.52)	1.31 (1.52)	1.21 (1.52)
Years Taught	.21 (.135)	.20 (.132)	.21 (.135)	.21 (.132)
Legitimacy	-2.17*** (.281)	-2.17*** (.267)	-2.17*** (.281)	-2.17*** (.267)
Powerlessness	.38*** (.092)	.35*** (.088)	.38*** (.093)	.35*** (.088)
Level 2 (N=160)				
School Type		2.93*** (.745)		3.39*** (.778)
School Size		.11 (.182)		.07 (.181)
Racial Composition		.85*** (.173)		.82*** (.170)
Free/Reduced Lunch		.41 (.211)		.38 (.206)
Special Education		.08 (.064)		.08 (.061)
Student-Teacher Ratio		.12* (.058)		.13* (.058)
Urban		-.13 (.715)		.001 (.680)
Rural		-1.44* (.713)		-1.43* (.704)
School Disorder		.07 (.062)		.08 (.063)
Nonviolent Strict	-.25* (.120)	-.13 (.088)		
Nonviolent Lenient	.17 (.124)	.13 (.094)		
Drug Strict			-.03 (.137)	-.15 (.089)
Drug Lenient			.15 (.239)	.19 (.193)
Cross-Level Interactions				
Legitimacy*NV-Strict	-.06 (.085)	-.04 (.081)		
Legitimacy*NV-Lenient	-.12 (.098)	-.13 (.095)		
Powerless*NV-Strict	.02 (.032)	-.02 (.030)		
Powerless*NV-Lenient	-.04 (.029)	-.04 (.028)		
Legitimacy*D-Strict			-.16 (.138)	-.15 (.131)
Legitimacy*D-Lenient			-.18 (.198)	-.20 (.191)
Powerless*D-Strict			.03 (.035)	.03 (.032)
Powerless*D-Lenient			-.07 (.048)	-.07 (.045)

Table 54. Continued

Random Effects	Variance Component	Variance Component	Variance Component	Variance Component
Intercept	16.01***	8.47***	16.53***	8.48***
Legitimacy	8.55***	7.60***	8.55***	7.65***
Powerlessness	1.06***	.951***	1.06***	.954***

\*p<.05; \*\*p<.01; \*\*\*p<.001



## CHAPTER VI

### DISCUSSION

This research examined the impact of school level disciplinary decisions on individual perceptions of school climate and safety among students and teachers, using the National Education Longitudinal Study of 1988, a longitudinal research design, and multilevel modeling. Specifically, this study examined whether the severity and/or consistency of school discipline decisions significantly impacted school climate indicators of morale, negative experiences, and safety among students, as well as school climate indicators of morale, administrative leadership, and school disorder among teachers. Furthermore, this research employed the theoretical constructs of legitimacy and subjective powerlessness to determine whether these constructs conditioned the effects of school discipline decisions on individual perceptions of climate and safety. The following sections will discuss the results regarding students, teachers, and schools, discuss policy implications, examine the study limitations, and provide suggestions for future research.

#### STUDENTS

Among students, the severity of school disciplinary decisions had a significant impact on student morale, however not in the way originally expected based on prior research. This study found that increases in the severity of punishment in general, for violent offenses, and for drug offenses was associated with significant increases in student morale, despite research suggesting that schools' routine over-punishment of minor misbehavior (McFadden et al. 1992; Skiba and Knesting 2001; Dunbar Jr. and Villarruel 2002; American Psychological Association Zero

Tolerance Task Force 2008) may fail to accomplish schools' desired effect of deterrence (Brown and Esbensen 1988) and may result in students feeling discouraged and alienated when receiving excessively harsh punishments considered disproportionate to the infraction committed (Bracy 2011). In addition, this finding does not align with prior research suggesting that more democratic disciplinary environments with increased student involvement in disciplinary decisions may improve school climate (Gibson and Haight 2003; Noguera 2007; Freiberg and Lamb 2009) and that schools with more positive school climates are less likely to use punishments such as suspension (Welsh 2000; Kirk 2009; Gregory et al. 2011).

Instead, findings regarding the severity of disciplinary decisions suggest that more severe discipline may actually improve student morale. One potential explanation for this finding may be that the overwhelming majority of students are not expecting to be punished at school, and thus may view their school's willingness to more severely punish misbehavior as something positive as long as this punishment is not being applied to them individually. In other words, students may view severe discipline as acceptable, and even protective, as long as is being applied to someone else. Put in a wider context of punishment in American society, this potential explanation may be supported by the fact that Americans generally value punitive punishment and view it as an integral part of achieving justice (Cullen, Fisher, and Applegate 2000). In addition, the timing of data collection may impact this finding, as the zero tolerance discipline framework had not yet taken hold in American schools and severe punishments may not have been perceived as overly-punitive as they often have been since the early 2000s (Skiba and Knesting 2001). It may be worth examining whether punishment severity has a similar impact on student morale in the post-Columbine era (Madfis 2012, 2016).

Punishment consistency additionally did not have as significant of an impact on student morale as was expected based on prior literature. The only consistency measure that had a significant impact on student morale was for violent offenses: as schools become less consistent in the application of punishments for violent offenses, student morale is expected to decrease significantly. This suggests that significant variation in punishment decisions regarding violent offending at school significantly diminishes positive feelings students may have about their school climates, with the observation that not all violence is addressed in the same fashion and some students may receive a slap on the wrist for violence, while others are met with punitive interventions. While this finding was expected, it is interesting that this was the only consistency measure to significantly impact morale, considering prior research noting the negative effects of inconsistent policy enforcement on student perceptions of climate (McNeal and Dunbar Jr. 2010; Bracy 2011) as well as their contribution to race gaps in disciplinary outcomes (McFadden et al. 1992; Townsend 2000; Verdugo 2002; Raffaele-Mendez and Knoff 2003; Gregory et al. 2010; Welch and Payne 2010, 2012; Edwards 2016; Peguero et al. 2017; Pesta 2018). Once again, the timing of data collection may have been a factor, considering that much of the scholarship documenting significant inconsistencies in discipline enforcement has been published after zero tolerance policies gained traction nationwide in American public schools.<sup>39</sup> This research therefore distinguishes that inconsistent discipline specifically for violent offenses may have a more significant impact on student perceptions of school climate compared to other offense types.

Some of the strongest findings related to student morale were due to the impacts of legitimacy and subjective powerlessness. As expected, when students viewed discipline as fairer in their schools, morale was expected to increase; while morale was expected to decrease when

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<sup>39</sup> Besides the 1975 Children's Defense Report on school suspensions.

students felt significantly powerless. These findings correspond with prior research noting that when students perceive discipline to be unfair, they feel less positively about their school environments (Kupchik and Ellis 2008; Kupchik 2009; McNeal and Dunbar Jr. 2010; Bracy 2011), and with research suggesting that students who view school discipline as fair will be more likely to view disciplinarians as legitimate and therefore comply with school rules more often (Welsh et al. 1999; Welsh 2000; Gottfredson et al. 2005; Hoffmann and Dufur 2008; Gregory et al. 2011; Way 2011; Tyler and Trinkner 2017; Fissel et al. 2019), potentially leading to reduced rates of misconduct, delinquency, and/or victimization in schools (Gottfredson and Gottfredson 1985; Mayer and Leone 1999; Welsh et al. 1999; Welsh 2000, 2001, 2003; Hoffmann and Dufur 2008; Gregory et al. 2011; Gottfredson, Cook, and Na 2012; Fissel et al. 2019). Findings regarding powerlessness also align with prior literature noting that students feel less powerless in schools with climates characterized by consensus among staff (Shearin Jr. 1982) and positive relations among students and teachers (Hoy 1972; Newmann 1981).

Interestingly, legitimacy did not condition the effects of school discipline on student morale. However, subjective powerlessness moderated the effects of punishment severity and consistency in general and for all sub-measures (violent, nonviolent, drug) on morale. Furthermore, powerlessness conditioned the effects of strict punishment consistency in general and for all sub-measures (violent, nonviolent, drug) on morale. As these interactions were all negative, this suggests that when students feel increasingly powerless, this weakens the direct effects of these punishment decisions on morale, whether those direct effects were positive (all severity measures, and nonviolent strict) or negative (general consistency, violent consistency, nonviolent consistency, drug consistency, general strict, violent strict, drug strict). These findings are important for schools to consider, especially in instances where the positive effect of

discipline on morale is weakened by students' perceived powerlessness, as this positive effect on morale may be weakened when students feel increasingly powerless at school, and this has implications for improving school climates. Furthermore, it is also important to consider instances where powerlessness weakens the negative direct effects of punishment measures on morale – especially as this occurred primarily for consistency measures. This suggests that as students feel increasingly powerless, the negative effect of being less consistent in punishment on morale is weakened, indicating that less consistency in punishment may not decrease student morale as much when students also feel increasingly powerless.

Regarding negative experiences, very few discipline measures had significant effects. Punishment severity for drug offenses was the only measure that significantly impacted student negative experience scores, in the negative direction, suggesting that as punishments for drug offenses become more severe, student negative experience scores decrease. In other words, when schools are more punitive in disciplining drug offenses, students perceive fewer negative experiences at their schools. Considering the time period of data collection and wider sociopolitical context of the War on Drugs during this same time (Kafka 2008), this finding is not surprising. Findings are also consistent with prior literature regarding the effects of legitimacy and powerlessness, where students have lower negative experience scores when perceived fairness of discipline at school is high, and students have higher negative experience scores when students feel increasingly powerless. Prior research suggests that when students view discipline as unfair, and feel increasingly powerless, they feel more negative toward their school environments (Rafalides and Hoy 1971, 1972; Shearin Jr. 1982; Kupchik and Ellis 2008; Kupchik 2009; Freiberg and Lamb 2009; McNeal and Dunbar Jr. 2010; Bracy 2011).

Additionally, powerlessness significantly conditioned the effects of punishment severity for drug offenses on negative experience scores, as well as the effects of lenient punishment consistency for nonviolent offenses on negative experience scores. As the first interaction (powerless\*drug severity) is positive, this suggests that when students feel increasingly powerless, the negative effect of punishment severity for drug offenses is strengthened and therefore more strongly decreases negative experience scores. This is an interesting finding worth more investigation, potentially suggesting that students may welcome schools' punitive response to drug offenses even when subjective powerlessness is high. As the second interaction (powerless\*nonviolent lenient) is negative, this suggests that when students feel increasingly powerless, the positive effect of lenient punishment consistency for nonviolent offenses is weakened. In other words, when students feel increasingly powerless, schools' inconsistent application of lenient punishments for nonviolent offenses does not increase negative experience scores as strongly, potentially suggesting that schools' inconsistency in lenient punishments is not necessarily an important issue for students when they already feel powerless at school. This has important implications regarding the interplay of student feelings of powerlessness and how they impact schools' consistency (or lack thereof) in the application of less punitive punishments for nonviolent offenses.

Select school discipline decisions also had significant impacts on perceived safety among students. Punishment severity for violent offenses had a significant and negative impact on perceived safety, suggesting that as punishment severity for violent offenses increases, students feel less safe at school. This finding should be interpreted cautiously, with the understanding that in schools that are punishing violent offenses more severely, there may simply be an increased level of violence or disorder in the school context, wherein students feel less safe more so for this

reason (Wilkins 2008; Burdick-Will 2013; Esselmont 2013; Lacoë 2015). More interesting findings concern the impact of strict and lenient punishment consistency for violent offenses on perceived safety: as schools are less consistent in their application of strict punishments (OSS, transfer, expulsion) for violent offenses, perceived safety significantly decreases; and as schools are less consistent in their application of lenient punishments (no action, detention, ISS) for violent offenses, perceived safety significantly increases. These findings suggest that the level of administrator discretion in the application of punishment for violent offenses significantly impacts how safe students feel at school.

Legitimacy and powerlessness additionally displayed expected effects on perceived student safety: as students perceive school discipline to be fairer, students feel safer at school; and as students feel increasingly powerless, they feel less safe at school. Prior research confirms this, indicating that students who feel unsafe at school are more likely to carry weapons to school (Esselmont 2013), arguably to attain some level of power in the school context, and are more likely to participate in delinquent behavior at school (Hoffmann and Xu 2002; Hoffmann and Dufur 2008), potentially due to fears of being victimized in the school context (Welsh 2000; Schreck and Miller 2003; Bachman et al. 2011; Esselmont 2013; Connell 2018). In addition, prior research suggests that when schools fairly and consistently enforce rules, students are less likely to report being a victim of bullying (Gerlinger and Wo 2016) and are less likely to report feeling unsafe at school (Mijanovich and Weitzman 2003; Hong and Eamon 2012). An important distinction in this context is that students must *believe* that school discipline is being enforced fairly at school and that they have some type of agency in the school environment; this goes beyond basic policies associated with zero tolerance that simply purport to standardize school

punishment and make it fair by disallowing the consideration of extenuating circumstances (Skiba and Knesting 2001; Verdugo 2002).

In addition, significant interactions existed between legitimacy and lenient punishments for all offenses as well as lenient punishments for violent offenses. As these interaction terms were both negative and the direct effects positive, this suggests that increased legitimacy weakens the positive impact of lenient punishments in general and for violent offenses on perceived safety. This suggests that when students perceive that discipline is fairer at their schools and as schools are less consistent in the application of lenient punishments in general and for violent offenses, perceived safety still increases, but not as strongly as it would due to the direct effect of these punishment decisions alone. This is an interesting finding and has implications for the ways in which students perceive that lenient punishments like detention and ISS are employed by schools. When there is less consistency in these punishments, perceived safety is improved. However, this relationship is weakened when students perceive discipline at their schools is fairer. This suggests that for students who believe their schools' discipline is fair but observe inconsistencies in the use of lenient punishments (especially for violent offenses), they may feel less safe at school than if they did not believe their schools' discipline was already fair.

Overall, select school disciplinary decisions significantly impacted student perceptions of climate and safety; and perceived legitimacy and powerlessness conditioned some of these effects as well. Findings generally coincide with prior literature save for the impacts of punishment severity measures on student morale. Additionally, punishment consistency did not impact student perceptions of climate and safety as would be expected based on prior literature. A potential explanation for this may concern the fact that at the time of data collection, students



had only recently begun noting significant disparities in punishment decisions (Children's Defense Fund 1975; Kafka 2008), and understandings about the impacts of inconsistent school punishment decisions were not as widespread. This suggests that administrator discretion in school disciplinary decisions may have had a much different impact on student outcomes before zero tolerance policies became popular, warranting future research comparing the effects of disciplinary discretion before and after zero tolerance took hold in American schools.

## TEACHERS

Among the teacher sample, none of the discipline measures had significant direct effects on perceptions of morale. This finding is interesting and suggests that, during the time period of data collection, teachers' morale levels were generally unaffected by school administrator decisions regarding discipline. Prior research in the area of discipline impacts on teacher morale specifically is scarce, and therefore there is little scholarship with which to compare these findings. Although Gottfredson (1986) found that Project PATHE's targeted strategies aimed at improving aspects of the school climate such as disciplinary procedures resulted in improvements to teacher morale, this study was conducted using a limited sample of schools and may not have been indicative of the wider school population.

Teacher morale findings as a result of the current research may be better understood in the context of historical shifts during the 1970s and 1980s regarding discretion in American school discipline. During the period of data collection, teachers had only recently begun to request that school districts implement broader school level discipline policies to provide more institutional support in teachers' use of punishment; and prior to this, teachers and administrators had significant discretion to punish students in the ways they deemed appropriate (Kafka 2008).

It is therefore possible that school level disciplinary decisions would not have significantly impacted teacher morale during this time since teachers and administrators were generally in agreement as far as discipline strategies and punishment decisions were not a major factor affecting perceived morale. However, one might imagine that due to this agreement regarding discipline decisions, that school administrators' punishment strategies would have significantly impacted morale if they were viewed favorably. This finding warrants further investigation with more recent data to determine whether school level disciplinary decisions significantly impact teacher perceptions of morale after the implementation of zero tolerance policies.

Despite the lack of significant direct effects of school punishment decisions on teacher morale, the intervening variables of legitimacy and powerlessness displayed significant effects. Findings suggest that as teachers perceive that rules for student behavior are enforced more consistently, morale increases; while morale decreases as teachers feel increasingly powerless. This aligns with prior research suggesting that disciplinary philosophies such as zero tolerance, which (in theory) standardize punishment, are perceived by teachers as making punishment easier by setting specific standards for specific behavior (Dunbar Jr. and Villarruel 2002; Sughrue 2003) and allows teachers to feel supported when making disciplinary decisions (Fries and DeMitchell 2007). This arguably may contribute to improved morale among teachers who view discipline strategies as fair and consistent.

The effect of powerlessness on teacher morale aligns with prior research suggesting that as teachers feel a greater sense of power and control in the school context, teachers feel more positively about their work and their work environment (Cox and Wood 1980; Zielinski and Hoy 1983; Dworkin et al. 2003; Brooks et al. 2008). In addition, findings regarding powerlessness align with prior research indicating that for some teachers, certain discipline policies are viewed

as unreasonable or overly rigid, which do not allow teachers to exercise common sense when making punishment decisions (Fries and DeMitchell 2007). This feeling of powerlessness in relation to discipline may therefore erode teacher morale.

There were also many significant interaction terms between the intervening variables and discipline variables as related to teacher morale. The significant interaction terms involving legitimacy were positive, while the significant terms involving powerlessness were negative. This indicates that among teachers, legitimacy enhanced or strengthened the effects of the disciplinary decision in question on morale, while powerlessness weakened the effects of disciplinary decisions on morale. Regardless of findings concerning direct effects of discipline decisions on teacher morale, the significant interaction terms suggest that teachers' perceptions of rule consistency and perceptions of powerlessness are important moderating factors that play an important role in the relationship between school discipline decisions and perceptions of morale. When teachers are in stronger agreement that rules for student behavior are enforced consistently, this may enhance the effects of administrative disciplinary decisions on morale; on the other hand, when teachers feel increasingly powerless, this may diminish the impact of discipline decisions on morale. Future research may consider more deeply investigating these relationships among teachers with more recent data.

This research also examined teachers' perceptions of administrative leadership as another indicator of school climate. Findings revealed that punishment severity for nonviolent offenses significantly impacted perceptions of administrative leadership, as well as strict punishments for all offenses, nonviolent offenses, and drug offenses. These findings suggest that as punishment severity for nonviolent offenses increases, teachers perceive a higher level of administrative leadership; and as strict punishments are applied less consistently, teachers also perceive a higher

level of administrative leadership. These findings arguably reflect the importance of school administrator discretion in the application of punishment, where administrators who implement more severe punishments for nonviolent offenses are viewed more favorably and administrators who exercise more discretion in the application of strict punishments (OSS, transfer, expulsion) are also viewed more favorably among teachers. This is supported by prior research indicating a favorable view of zero tolerance policies among teachers and principals (Dunbar Jr. and Villarruel 2002; Sughrue 2003), especially since Columbine (Kupchik 2009; Ewton 2014; Madfis 2016), as they allow teachers to feel more supported by their administrations when making disciplinary decisions (Fries and DeMitchell 2007). Furthermore, these findings represent the conundrum teachers found themselves in during this time period: on one hand requesting more punitive school policies at the district level in order to be more supported in disciplinary decisions, and on the other hand still desiring individual discretion in discipline decision making (Kafka 2008).

Findings also revealed that legitimacy and powerlessness significantly impacted perceptions of administrative leadership. As teachers felt that rules were enforced more consistently, perceived administrative leadership increased, while perceived administrative leadership declined as teachers felt increasingly powerless. These findings are again supported by prior literature noting the importance of clearly defined school discipline policies (Sprague et al. 2001) as well as consistent rule enforcement in schools (Dunbar Jr. and Villarruel 2002; Sughrue 2003; Fries and DeMitchell 2007) and the implications for how teachers feel about their school environments. Additionally, findings are supported by prior research indicating that when teachers feel increasingly powerless or alienated, the more rigid they perceive administrative hierarchy (Cox and Wood 1980) and that teachers are more likely to feel empowered when

schools adopt more democratic personnel policies (Brooks et al. 2008) characterized by principal support and collegiality (Dworkin et al. 2003). A lack of significant interaction terms in the administrative leadership models suggests that legitimacy and powerlessness display more significant direct effects on perceived administrative leadership rather than moderating effects between discipline measures and perceived administrative leadership among teachers.

Teacher perceptions of school disorder was used as a proxy for perceived safety, as teacher perceptions of school safety were not explicitly measured in the data. School disorder has been used in the school climate literature to measure the degree to which school actors perceive that their schools are disorderly based on student misbehavior (see Sprague et al. 2002; Stewart 2003; Gottfredson et al. 2005; Hoffmann and Dufur 2008; Apel et al. 2009; Urick and Bowers 2011; Perumean-Chaney and Sutton 2013). While not a precise measurement of perceived safety, this measure in the teacher sample does provide insight regarding how teachers view their school environments. Among the discipline measures, punishment severity for all offenses, nonviolent offenses, and drug offenses each displayed significant and negative effects on school disorder, suggesting that as punishment severity increases, perceived school disorder decreases. This aligns with prior research demonstrating that teachers generally fear serious violence at school in the form of mass or rampage shootings (Madfis 2016) or “Columbine-like incidents” (Kupchik 2009:299), and therefore might welcome more severe disciplinary strategies to address school disorder.

Findings also reveal that strict punishment consistency for nonviolent offenses significantly impact perceived school disorder: as strict punishments for nonviolent offenses become less consistent, perceived school disorder decreases. This suggests that teachers may value more discretion in the application of strict punishments for nonviolent offenses and this

may have important implications for how teachers feel about their school environments. This finding provides support for potentially reevaluating zero tolerance policies that do not allow the consideration of aggravating or mitigating circumstances in the application of punishments especially for minor offenses (Skiba and Knesting 2001; Verdugo 2002), as teachers may potentially perceive of standardized or overly rigid discipline policies as lacking common sense and therefore failing to adequately address school disorder (Fries and DeMitchell 2007).

As expected, the intervening variables legitimacy and powerlessness each had significant impacts on perceived school disorder among teachers. Findings suggest that as teachers perceive rules to be more consistently enforced, perceptions of school disorder decrease, while perceptions of disorder increase as teachers feel increasingly powerless. These findings provide support first and foremost for perceived legitimacy of school rules – that not only should these rules be enforced fairly, but that teachers must *believe* that these rules are enforced fairly to have significant impacts on perceptions of climate. Furthermore, this provides support for the assertion that empowering teachers in their everyday work environments may have a significant impact on how they perceive issues related to school disorder, potentially leading to different and more prosocial ways of handling student misbehavior issues. Arguably, this could lead to teachers feeling less of a need to “make a statement” as teachers have been cited as doing regarding their disciplinary decisions (Dunbar Jr. and Villarruel 2002) and instead making more informed and equitable decisions in response to student misbehavior. When teachers have more of a stake in the creation of school disciplinary policies and practices and feel that these policies are effective, they are more likely to perceive schools as safe and orderly (Dworkin et al. 2003).

There was also a significant interaction term between legitimacy and punishment consistency for drug offenses as related to perceived school disorder among teachers. Being

negative, this term indicates that increased legitimacy weakens the impact of punishment consistency for drug offenses on perceived school disorder (regardless of whether the direct effect was positive in the level-1 only model or negative as in the full model). This suggests that as teachers perceive that rules are enforced more consistently and as administrative decisions to punish drug offenses become less consistent, perceived school disorder still increases (or decreases) but not as strongly as due to the direct effects of drug punishment consistency alone. Despite the direct effects of punishment consistency for drug offenses on school disorder not being significant, this finding provides additional support for the role of perceived legitimacy among teachers in the school context as related to rule enforcement.

Overall, select school disciplinary decisions significantly impacted teacher perceptions of climate and safety; and perceived legitimacy and powerlessness conditioned some of these effects as well. Findings generally coincide with prior literature primarily as related to discipline severity, the role of discretion, and the impacts of perceived legitimacy and powerlessness in the school context. As research specifically examining the role of school level discipline decisions on individual teacher outcomes is slightly lacking, this study arguably contributes to this body of work. Furthermore, findings related to teacher outcomes allow for the consideration of historical context in understanding the results, accounting for the fact that schools' disciplinary climates may have impacted teachers differently in the late 1980s than they might today due to the significant social and cultural movements related to school discipline at that time (Kafka 2008).

## SCHOOLS

Upon initially approaching this study with the understanding of how current disciplinary practices are implemented and impact student outcomes in the post-Columbine era (Madfis

2016), results regarding school discipline using the 1988-92 NELS data were somewhat surprising. Among the sampled schools, disciplinary decisions for the composite measures were not necessarily overly severe or vastly inconsistent, save for a few outliers. Furthermore, offenses that incurred the harshest punishments according to school administrators in 1990 (weapons possession, physically injuring a teacher, selling drugs) would likely incur similarly harsh punishments today. However, punishments that incurred the least severe punishments in 1990 (cheating, skipping class, classroom disturbance, profanity) have experienced a significant reconceptualization in many school climates, and over the last 20 years have been met with increasingly punitive discipline sometimes including law enforcement contact and juvenile court referral (Skiba and Knesting 2001; Rafaele-Mendez and Knoff 2003; Hirschfield 2008; Fowler 2011; Edmiston 2012; Burke and Nishioka 2014; Edelman 2017; French-Marcelin and Hinger 2017).

While variation did exist among schools for some of the individual discipline indicators, indicating some inconsistency as conceptualized in this research; there is another way of understanding these results: not as inconsistency but as flexibility. The lack of significant effects particularly between punishment consistency and student outcomes begs the question of whether consistency in school discipline enforcement is more important compared to *perceived* fairness and/or consistency of rule enforcement. This study's results suggest that the latter is more important, and that when school administrators are inconsistent in discipline enforcement, this may not be a negative issue if their discretion is used appropriately, and students *perceive* that this discretion is used appropriately. For instance, stealing a pencil is a vastly different offense than stealing an expensive piece of school equipment; and while both are considered theft, each would ideally warrant different disciplinary responses.



Zero tolerance discipline became popularized partly due to concerns about improper use of discretion to punish, often informed by negative racial stereotypes (McFadden et al. 1992; Solorzano 1997; Welch 2007; Lamont-Hill 2016). Discretion is often considered a dirty word in the context of punishment, mainly because it is often used inappropriately. For instance, Fabelo et al. (2011) found that between 2000 and 2002, only 3% of disciplinary responses in Texas schools “were for conduct for which state law mandate[d] suspensions and expulsions (p. x), with the remaining 97% of disciplinary actions made at school administrators’ discretion. Furthermore, many of these discretionary decisions resulted in disproportionate punishment applied to Black students and students requiring special education services (ibid.). There is additionally a wealth of research demonstrating the harm that inappropriate discretionary bias in the application of punishment presents. However, discretion may also be used appropriately, allowing for the use of punishments that fit specific misbehavior and that are more appropriate for specific contexts.

What is lost with zero tolerance is the ability to judge misbehavior on a case-by-case basis and use of discretion appropriately to enact equitable discipline, that holds students responsible for their actions but also accounts for the fact that students misbehave because of many different factors, sometimes that are out of their immediate control such as mental illness, intellectual disabilities, family issues, or poverty-related issues. Furthermore, zero tolerance discipline erodes positive views about the school environment that might be held by students, instead creating an adversarial environment where students are pitted against teachers and administrators. Should schools desire to prevent serious violence, they may consider taking an (ethically) discretionary approach to discipline that cultivates supportive school environments where students feel respected, supported, and trusted (Madfis 2020).

The issue of discretion is also apparent regarding school discipline's effect on teacher outcomes. It appears that what might work best for teachers is a balance between institutional/administrative support regarding school discipline and the ability to use some of their own discretion when making disciplinary decisions for student misbehavior. A zero tolerance approach to discipline is arguably not an adequate form of institutional support: while zero tolerance policies may result in severe punishment, teachers and administrators have lamented at their unreasonableness and how they remove all discretion from the disciplinary process (Fries and DeMitchell 2007), where punishments are often "misuse[d] and abuse[d]...for incidents that were not meant to be covered under [the policy]" (Martinez 2009:154). When teachers have little say in decision-making, especially regarding disciplinary decisions and rule enforcement, teachers feel increasingly powerless in their roles as educators (Cox and Wood 1980; Brooks et al. 2008). Schools arguably should redesign their discipline policies allowing input from both teachers and students, so that discipline will be more likely perceived as fair and so that these school actors will have some agency to construct the rules and policies to which they will be held.

A final note about the effects of school discipline in this study concerns the fact that often, school discipline measures fell out of significance in the final models upon the inclusion of school level controls. While this study is primarily concerned with the impacts of school level disciplinary decisions on individual outcomes, it should be noted that other school level factors may be more impactful for student and teacher outcomes related to their perceptions of school climate. Understanding the role of school disciplinary decisions in these outcomes is important; however, schools are more than disciplinary environments. It should therefore be understood that factors like school size, location, racial makeup, student-teacher ratio, and funding (among

others) may impact the way students and teachers perceive their school environments.

Addressing key issues like school segregation and inadequate funding may be a primary catalyst for meaningful change in school climates both objectively and subjectively (Kozol 1991).

## POLICY IMPLICATIONS

The primary policy implications of this research concern schools' need to reevaluate their disciplinary strategies, retreat from the zero tolerance approach, and allow for the use of appropriate discretion in disciplining students so consequences for misbehavior not only are more equitable, but are also perceived as more equitable by all involved parties. What zero tolerance policies promote as standardization and consistency in punishment is arguably an inequitable approach to discipline that disproportionately impacts some students over others. Even more, research suggests that teachers and school administrators do not even have the same understandings of what zero tolerance discipline is or entails (Dunbar Jr. and Villarruel 2002; Fries and DeMitchell 2007), arguably negating the entire purpose of zero tolerance policies in the first place. Schools also face a concerning phenomenon where the threshold for severe punishment is routinely being lowered, resulting in an expansion of punishable infractions to include childlike (mis)behavior and a significant increase in school-to-prison pipeline trajectories (Skiba and Knesting 2001; Fowler 2011; French-Marcelin and Hinger 2017).

The inability and/or unwillingness of schools and school actors to implement equitable, common sense discipline negatively impacts students' and teachers' perceptions of school climate, resulting in disillusionment with school rules and feelings of powerlessness to make any type of meaningful change in the disciplinary structure. Both Noguera (2007) and Freiberg and Lamb (2009) each cite important policy changes that might address this situation. A key first step

involves listening to students and teachers and allowing for their input in school policy formation and implementation, as “their buy-in is essential if schools are to succeed in creating an environment that is conducive to learning” (Noguera 2007:208). Additionally, a shift toward adopting person-centered classrooms as in the Consistency Management and Cooperative Discipline Program (Freiberg 1999) would allow teachers and students to share control of the classroom environment, where “all students have the opportunity to become an integral part of the management of the classroom [and] rules are developed by the teacher and students in the form of a classroom constitution or compact” (Freiberg and Lamb 2009:101). Efforts to give students and teachers more agency in the school context may foster positive climates, where rules and authority are perceived as legitimate, may contribute to more equitable discipline strategies, and potentially serve as a preventative measure against student misbehavior.

Promoting and implementing delinquency prevention programs may also have benefits not only concerning the regulation of student misbehavior, but promotion of positive school climates through a holistic approach involving students, parents, community members, and school staff (Gottfredson 1986; Sprague et al. 2001; Metzler et al. 2001; Gottfredson et al. 2004, 2005). Despite the many preventative programs that have been piloted in American schools, many of which have shown promising results for improving school environments, student behavior, and perceptions about climate; schools continue to insist on implementing zero tolerance discipline, which is reactionary, punitive, detrimental to the school environment, and continually fails to achieve desired discipline goals (Skiba and Knesting 2001; Raffaele-Mendez and Knoff 2003; Skiba et al. 2004; Losen et al. 2015; Madfis 2020). Based on the results of this research, school funding should be steered away from such punitive and arbitrary approaches to discipline since they have repeatedly demonstrated their ineffectiveness, and funding should be

funneled toward preventative pilot programs that evaluate whether schools, students, and teachers may benefit from a proactive approach to addressing behavioral issues and an opportunity to reincorporate appropriate discretion in disciplinary decisions. For instance, less punitive and more prosocial responses such as peer juries and restorative justice have gained popularity in some schools with some promising results related to addressing student misbehavior (Gonzalez 2012; Castillo 2014; Garcia 2021).

Finally, amendments should be made to state laws to reduce the criminalization of youth in American schools. State laws such as South Carolina's (now repealed) "disturbing schools" law (Hinger 2018) and Texas law allowing students as young as elementary ages to receive Class C misdemeanor tickets for disrupting the school environment (Texas Association of School Boards 2015) allow for the criminal processing of minor and often nonviolent behavior that is resolved in the justice system rather than via school disciplinary processes (Hirschfield 2008; Fowler 2011; Nance 2015; Edelman 2017; French-Marcelin and Hinger 2017). Furthermore, these laws are so vague in the identification of unlawful behavior that anything construed as being "disturbing" or "disruptive" may be met with a criminal charge (Blad 2017). In many places, schools have almost given up their discretion to discipline completely to the police and courts, doing very little disciplining within school walls (Edelman 2017). These state laws and the punitive philosophy informing them arguably bleeds over into school environments, more closely aligning school settings with criminal justice settings (Hirschfield 2008) and contributing to the school-to-prison pipeline effect (Fowler 2011). To effectively change school discipline policy to foster positive school climates, state law must therefore also be amended so that only the most serious student infractions are dealt with in the justice system.

## LIMITATIONS AND FUTURE RESEARCH

As with any research, this study had limitations that should be noted. The study used secondary data that was also a public-use file. Public-use files exclude sensitive or confidential information, potentially eliminating variables that may have been useful to this study. Secondary data also makes difficult the construction and conceptualization of certain variables as precisely as the researcher would like. For instance, there was no perceived safety measure for teachers, necessitating the use of school disorder as a proxy. In addition, the NELS data did not include measures of actual carried out punishments at the school level, only hypothetical measures of what school administrators *would* do in the event of a disciplinary infraction. It is not uncommon that what people say they will do differs from what they do, and as such this presents a limitation as related to this research. Finally, while the research design was longitudinal with explanatory measures at wave 2 and outcome measures at wave 3; ideally longitudinal research would examine outcomes at various time periods.

Future studies may consider replicating this research design with more recent data and by using measures of carried out punishments at the school level, possibly in addition to school administrator decisions regarding discipline use. While the data provided a unique opportunity to quantify discretion in school disciplinary decisions, it would be interesting to examine the impact of schools' implemented punishments on student and teacher outcomes as well. Furthermore, studies may consider employing interrupted time series analyses to determine whether school discipline impacted individual outcomes differently before and after the implementation of zero tolerance discipline policies in the mid 1990s. Since zero tolerance represented a sea change in the philosophy of punishment in American public schools, it is possible that school discipline decisions may have had different effects on individual outcomes both before and after this policy

– primarily because discipline was being implemented in different ways, for different infractions, and because of different philosophies.

To better understand this study's quantitative findings, future studies may consider conducting qualitative research to obtain a richer and more detailed understanding of how school discipline decisions impact individual perceptions of school climate. It may be beneficial to conduct in-depth interviews or even ethnographic research with students, teachers, and school administrators to more deeply understand how school discipline impacts individual outcomes. Conducting content analyses of schools' disciplinary codes could provide significant insight regarding variability of school rules and would allow for comparisons within and between schools, school districts, and even states regarding discipline strategies. Finally, scholars may consider conducting spatial analyses with GIS software to map school discipline use and account for spatial location when examining the impact of school discipline decisions on individual outcomes.

## CONCLUSION

School discipline is a multifaceted issue that deserves deliberate consideration by school administrators, teachers, and students to be effective. As this research suggests, schools could achieve more equitable outcomes for students and teachers by pursuing disciplinary strategies that allow for the appropriate use of discretion when making decisions to punish misbehavior. Rather than continue in the tradition of zero tolerance that primarily focuses on punishing all offenses the same way; schools should consider taking a more person-centered approach to discipline and administer punishment on a case-by-case basis. This would allow schools to carefully consider the social factors related to why students misbehave prior to administering

punishment, so that students are held accountable but not harmed or unnecessarily excluded from the school environment. Since teachers spend more time directly with their students and may know their students' specific needs more than school administrators, allowing teachers to use their discretion and positively contribute to the maintenance of school discipline may not only improve teachers' feelings about their work and workplace, but also improve interpersonal relationships with students and other staff.

Punishment is meaningful, and schools have the power to determine what punishment will mean for their students and their overall school environments. Taking care to ensure that punishment allows students to take responsibility for their actions but also considers the variety of factors that might have contributed to the misbehavior in question may make punishment more meaningful to students (and even teachers) than punishment that is punitive just for the sake of being punitive. This highlights the importance of allowing schools the discretion to administer discipline that has been carefully tailored to meet individual needs, rather than discipline that is informed by a broad and unforgiving framework like zero tolerance. In this same vein, schools may even consider preparing the school-based equivalent of a predisposition report (as is done in the juvenile justice system) prior to deciding on a disciplinary response for a student, so that this response is individualized and appropriately meets both student and school needs. It is about time that schools reevaluate how and why they punish; and schools should be tasked with reshaping their punishment strategies, so they foster positive school climates for learning and working.



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## APPENDIX A

## DESCRIPTIVE STATISTICS FOR INDIVIDUAL PUNISHMENT INDICATORS

Table A. Descriptive Statistics: Punishment Severity Individual Indicators (Student Sample)

Variable	N=389			
	Min-Max	Mean	St. Dev.	Skewness
Cheating	1-6	2.45	0.72	1.67
Skip class	1.08-6	2.78	0.85	1.37
Skip 1-2 days	2-6	3.08	0.78	0.60
Skip 3 days	2-6	3.47	0.91	0.80
Theft	2-6	4.30	1.06	0.37
Classroom disturbance	2-6	2.88	1.00	1.19
Profanity	2-6	3.01	0.92	0.81
Physically injure student	2-6	4.28	0.94	0.72
Weapons possession	2-6	5.26	1.01	-0.83
Verbal abuse teacher	2-6	3.95	0.96	0.68
Physically injure teacher	3-6	5.63	0.77	-1.74
Alcohol possession	3-6	4.40	0.90	0.87
Drug possession	3-6	4.78	1.01	0.21
Sell drugs	3-6	5.48	0.88	-1.24
Use alcohol	3-6	4.53	0.94	0.64
Use drugs	3-6	4.73	0.99	0.33
Smoke	1-6	3.31	0.90	0.46

Table B. Descriptive Statistics: Punishment Severity Individual Indicators (Teacher Sample)

Variable	N=389			
	Min-Max	Mean	St. Dev.	Skewness
Cheating	2-6	2.51	0.83	1.95
Skip class	2-6	2.77	0.86	1.43
Skip 1-2 days	2-6	3.05	0.78	0.56
Skip 3 days	2-6	3.50	0.99	0.90
Theft	2-6	4.21	1.07	0.44
Classroom disturbance	2-6	2.73	0.89	1.44
Profanity	2-6	2.88	0.81	0.55
Physically injure student	2-6	4.15	0.95	0.69
Weapons possession	2-6	5.18	1.05	-0.70

Verbal abuse teacher	2-6	3.85	0.89	0.80
Physically injure teacher	3-6	5.60	0.81	-1.66
Alcohol possession	3-6	4.35	0.89	0.99
Drug possession	3-6	4.79	1.01	0.24
Sell drugs	3-6	5.41	0.93	-1.06
Use alcohol	3-6	4.47	0.95	0.70
Use drugs	3-6	4.71	0.99	0.41
Smoke	1-6	3.17	0.84	0.37

Table C. Descriptive Statistics: Punishment Consistency Individual Indicators, Student Sample

Variable	N=389			
	Min-Max	Mean	St. Dev.	Skewness
Cheating	1-4	1.18	0.46	2.85
Skip class	1-4	1.28	0.64	2.50
Skip 1-2 days	1-4	1.22	0.53	2.66
Skip 3 days	1-4	1.24	0.54	2.30
Theft	1-4	1.32	0.60	1.82
Classroom disturbance	1-4	1.44	0.76	1.61
Profanity	1-4	1.45	0.73	1.46
Physically injure student	1-4	1.33	0.61	2.03
Weapons possession	1-3	1.29	0.55	1.83
Verbal abuse teacher	1-4	1.34	0.64	1.87
Physically injure teacher	1-3	1.27	0.50	1.76
Alcohol possession	1-4	1.24	0.53	2.43
Drug possession	1-4	1.29	0.58	2.09
Sell drugs	1-3	1.25	0.51	1.99
Use alcohol	1-3	1.25	0.52	2.07
Use drugs	1-3	1.24	0.50	2.12
Smoke	1-4	1.21	0.50	2.70

Table D. Percentage of Individual Indicators in “Wide Range” of Punishment Consistency (Student Sample)

Variable	N=389	
	Score of 3 or higher	Range
Cheating	2.6%	3-4
Skip class	6.7%	3-4
Skip 1-2 days	4.1%	3-4
Skip 3 days	4.9%	3-4



Theft	6.5%	3-4
Classroom disturbance	12.2%	3-4
Profanity	11.4%	3-4
Physically injure student	5.6%	3-4
Weapons possession	5.1%	3
Verbal abuse teacher	6.7%	3-4
Physically injure teacher	3.1%	3
Alcohol possession	3.6%	3-4
Drug possession	5.1%	3-4
Sell drugs	3.9%	3
Use alcohol	3.9%	3
Use drugs	3.6%	3
Smoke	3.1%	3-4

Table E. Descriptive Statistics: Punishment Consistency Individual Indicators, Teacher Sample

Variable	N=160			
	Min-Max	Mean	St. Dev.	Skewness
Cheating	1-4	1.18	0.48	3.15
Skip class	1-4	1.26	0.64	2.76
Skip 1-2 days	1-4	1.18	0.47	3.19
Skip 3 days	1-3	1.23	0.53	2.30
Theft	1-3	1.24	0.53	2.21
Classroom disturbance	1-4	1.35	0.69	2.08
Profanity	1-3	1.35	0.65	1.67
Physically injure student	1-4	1.30	0.66	2.49
Weapons possession	1-3	1.18	0.48	2.71
Verbal abuse teacher	1-4	1.28	0.63	2.45
Physically injure teacher	1-3	1.23	0.50	2.11
Alcohol possession	1-4	1.20	0.53	3.20
Drug possession	1-4	1.26	0.57	2.38
Sell drugs	1-3	1.22	0.52	2.36
Use alcohol	1-3	1.21	0.50	2.46
Use drugs	1-3	1.19	0.48	2.66
Smoke	1-4	1.16	0.46	3.44

Table F. Percentage of Individual Indicators in “Wide Range” of Punishment Consistency (Teacher Sample)

	N=160
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Variable	Score of 3 or higher	Range
Cheating	2.5%	3-4
Skip class	6.3%	3-4
Skip 1-2 days	2.5%	3-4
Skip 3 days	4.4%	3
Theft	5.0%	3
Classroom disturbance	8.8%	3-4
Profanity	10.0%	3
Physically injure student	5.6%	3-4
Weapons possession	3.8%	3
Verbal abuse teacher	7.6%	3-4
Physically injure teacher	3.1%	3
Alcohol possession	3.8%	3-4
Drug possession	5.6%	3-4
Sell drugs	5.0%	3
Use alcohol	3.8%	3
Use drugs	3.8%	3
Smoke	2.5%	3-4

Table G. Descriptive Statistics: Punishment Consistency Individual Indicators, Strict Range (Student Sample)

Variable	N=389			
	Min-Max	Mean	St. Dev.	Skewness
Cheating	0-2	0.11	0.33	3.27
Skip class	0-2	0.19	0.45	2.55
Skip 1-2 days	0-3	0.30	0.49	1.51
Skip 3 days	0-3	0.50	0.58	0.78
Theft	0-3	1.00	0.60	0.37
Classroom disturbance	0-3	0.31	0.54	1.77
Profanity	0-2	0.33	0.52	1.27
Physically injure student	0-3	1.05	0.57	0.66
Weapons possession	0-3	1.22	0.55	1.15
Verbal abuse teacher	0-3	0.81	0.60	0.34
Physically injure teacher	0-3	1.25	0.49	1.55
Alcohol possession	0-3	1.06	0.47	0.97
Drug possession	0-3	1.16	0.51	1.23
Sell drugs	0-3	1.20	0.48	1.62
Use alcohol	0-3	1.09	0.48	1.07

Use drugs	0-3	1.13	0.46	1.40
Smoke	0-3	0.46	0.55	0.80

Table H. Descriptive Statistics: Punishment Consistency Individual Indicators, Strict Range (Teacher Sample)

Variable	N=160			
	Min-Max	Mean	St. Dev.	Skewness
Cheating	0-2	0.14	0.41	3.00
Skip class	0-2	0.19	0.46	2.50
Skip 1-2 days	0-3	0.29	0.50	1.83
Skip 3 days	0-3	0.51	0.61	0.99
Theft	0-3	0.92	0.58	0.34
Classroom disturbance	0-2	0.22	0.46	2.19
Profanity	0-2	0.26	0.45	1.33
Physically injure student	0-3	0.99	0.61	0.74
Weapons possession	0-3	1.12	0.51	1.57
Verbal abuse teacher	0-2	0.74	0.55	0.01
Physically injure teacher	0-3	1.21	0.50	1.76
Alcohol possession	0-3	1.04	0.48	1.10
Drug possession	0-3	1.17	0.52	1.51
Sell drugs	0-3	1.18	0.49	1.91
Use alcohol	0-3	1.07	0.49	1.05
Use drugs	0-3	1.12	0.46	1.85
Smoke	0-2	0.38	0.50	0.83

Table I. Descriptive Statistics: Punishment Consistency Individual Indicators, Lenient Range (Student Sample)

Variable	N=389			
	Min-Max	Mean	St. Dev.	Skewness
Cheating	0-2	1.07	0.37	0.70
Skip class	0-2	1.09	0.40	0.73
Skip 1-2 days	0-2	0.92	0.46	-0.25
Skip 3 days	0-2	0.74	0.54	-0.01
Theft	0-2	0.32	0.48	0.97
Classroom disturbance	0-2	1.14	0.50	0.24
Profanity	0-2	1.12	0.57	0.00
Physically injure student	0-2	0.28	0.46	1.31
Weapons possession	0-1	0.07	0.26	3.32
Verbal abuse teacher	0-2	0.53	0.56	0.51

Physically injure teacher	0-1.17	0.02	0.15	6.58
Alcohol possession	0-2	0.18	0.39	1.79
Drug possession	0-2	0.13	0.33	2.49
Sell drugs	0-1	0.05	0.21	4.27
Use alcohol	0-1	0.15	0.35	1.94
Use drugs	0-1	0.11	0.31	2.49
Smoke	0-2	0.74	0.55	-0.02

Table J. Descriptive Statistics: Punishment Consistency Individual Indicators, Lenient Range (Teacher Sample)

Variable	N=160			
	Min-Max	Mean	St. Dev.	Skewness
Cheating	0-2	1.03	0.41	0.22
Skip class	0-2	1.07	0.43	0.39
Skip 1-2 days	0-2	0.88	0.45	-0.46
Skip 3 days	0-2	0.73	0.54	-0.08
Theft	0-2	0.33	0.49	1.08
Classroom disturbance	0-2	1.14	0.48	0.34
Profanity	0-2	1.09	0.57	0.02
Physically injure student	0-2	0.31	0.49	1.14
Weapons possession	0-1	0.06	0.24	3.70
Verbal abuse teacher	0-2	0.54	0.58	0.59
Physically injure teacher	0-1	0.02	0.14	7.05
Alcohol possession	0-2	0.16	0.37	2.27
Drug possession	0-2	0.09	0.30	3.62
Sell drugs	0-1	0.04	0.21	4.48
Use alcohol	0-1	0.14	0.35	2.05
Use drugs	0-1	0.07	0.25	3.42
Smoke	0-2	0.78	0.54	-0.11

## APPENDIX B

ITEMS INCLUDED IN SURVEY MEASURES AND CODING FOR ALL DEPENDENT AND  
INTERVENING VARIABLES*Student Dependent and Intervening Variables*

## Morale (Wave 3)

Responses are strongly disagree (1), disagree (2), agree, (3), or strongly agree (4)

There is real school spirit

Students make friends with students of other racial/ethnic groups

The teaching is good at this school

Teachers are interested in students

Students are graded fairly in school

## Negative experiences (Wave 3)

Responses to the first four items are strongly disagree (1), disagree (2), agree, (3), or strongly agree (4). Responses to the last two items are never (1), once or twice (2), or more than twice (3)

Disruptions by other students get in the way of my learning

Fights often occur between different racial/ethnic groups

There is a lot of cheating on tests and assignments

Some teachers ignore cheating when they see it

Had something stolen at school

Something was stolen at school

## Safety (Wave 3)

Responses are strongly agree (1), agree (2), disagree, (3), or strongly disagree (4)

I don't feel safe at this school

## Legitimacy (Wave 3)

Responses are strongly disagree (1), disagree (2), agree, (3), or strongly agree (4)

Discipline is fair at school

## Powerlessness (Wave 3)

Responses are strongly disagree (1), disagree (2), agree, (3), or strongly agree (4)

I don't have enough control over the direction my life is taking

In my life, good luck is more important than hard work

Every time I try to get ahead, something or somebody stops me

My plans hardly ever work out, so planning only makes me unhappy

Chance and luck are very important for what happens in my life

*Teacher Dependent and Intervening Variables*

## Morale (Wave 3)

Responses are strongly disagree (1), disagree (2), agree, (3), or strongly agree (4)

Most of the teachers in my department share my beliefs and values about the central mission of the school

There is broad agreement among all school faculty about the central mission of the school

Staff members are recognized for a job well done

Teachers in this department are continually learning and seeking new ideas

There is a great deal of cooperative effort among my department's members

Goals and priorities for this department are clear

Grading practices are consistent and fair

Rules against cheating are actively enforced

### Administrative leadership (Wave 3)

Responses are strongly disagree (1), disagree (2), agree, (3), or strongly agree (4)

The school administrator knows what kind of school he/she wants and has communicated it to the staff

The school administrator deals effectively with pressures from outside the school that might otherwise affect my teaching

The school administrator knows the problems faced by the staff

Necessary materials are readily available as needed by the staff

### Teacher reports of school disorder (Wave 3)

Responses are not a problem (1), minor problem (2), major problem, (3), or serious problem (4)

Indicate the degree to which each of the following is a problem with students in your school:

Tardiness

Absenteeism

Class cutting

Physical conflicts

Gang activities

Robbery/theft

Vandalism

Alcohol use

Drug use

Possession of weapons

Physical abuse of teachers

Verbal abuse of teachers

Racial/ethnic conflict

### Legitimacy (Wave 3)

Responses are strongly disagree (1), disagree (2), agree, (3), or strongly agree (4)

Rules for student behavior are consistently enforced at this school

### Powerlessness (Wave 3)

Responses are complete control (1), major control (2), moderate control (3), minor control (4), or no control (5)

How much control do you feel you have in your classroom over each of the following areas of your planning and teaching:

- Selecting instructional materials

- Selecting content, topics, and skills to be taught

- Selecting teaching techniques

- Disciplining students

- Determining the amount of homework assigned

## APPENDIX C

## CONSTRUCT ITEMS AND FACTOR LOADING SCORES

<i>Component (Students: Wave 3)</i>	1	2
There is real school spirit	.744	
Students make friends with students of other racial/ethnic groups	.746	
The teaching is good at this school	.780	-.376
Teachers are interested in students	.777	-.397
Students are graded fairly in school	.740	-.329
Disruptions by other students get in the way of my learning	.682	.410
Fights often occur between different racial/ethnic groups	.626	.494
There is a lot of cheating on tests and assignments	.683	.418
Some teachers ignore cheating when they see it	.650	.434
Had something stolen at school	.778	
Someone threatened to hurt me at school	.785	
I don't feel safe at this school	.644	.457

<i>Component (Teachers: Wave 3)</i>	1	2
Teachers in this department are continually learning and seeking new ideas	.851	
Most of my departmental colleagues share my beliefs and values about the central mission of the school	.837	
There is a great deal of cooperative effort among my department's members	.837	
Goals and priorities for this department are clear	.852	
There is broad agreement among the entire faculty about the central mission of the school	.765	
Staff members are recognized for a job well done	.860	
Grading practices are consistent and fair	.873	
Rules against cheating are actively enforced	.838	
The principal knows what kind of school he/she wants and has communicated it to staff	.759	.325
The principal deals effectively with pressures from outside the school that might otherwise affect my teaching	.864	
This school's administration knows the problems faced by staff	.871	
Necessary materials are readily available as needed by staff	.875	
Tardiness	.899	
Absenteeism	.906	
Class cutting	.898	
Physical conflicts among students	.913	
Gang activities	.892	
Robbery/Theft	.900	



Vandalism of school property	.909	
Student use of alcohol	.879	
Student use of illegal drugs	.897	
Student possession of weapons	.898	
Physical abuse of teachers	.918	
Verbal abuse of teachers	.895	
Racial and ethnic conflict among students	.894	

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## EDUCATION

Ph.D.	Criminology and Criminal Justice, Old Dominion University, Norfolk, VA Dissertation – <i>Is it Better to be Tough, or is Consistency Key? A Multilevel Analysis Examining the Effects of School Disciplinary Procedures on Perceptions of Climate and Safety Among Students and Teachers</i>	2021
Graduate Certificate	Women’s Studies, Old Dominion University, Norfolk, VA	2019
M.A.	Applied Sociology, Old Dominion University, Norfolk, VA Thesis – <i>Working Together: Examining the Effects of Parental and Community Involvement in Schools on School Delinquency</i>	2017
B.A.	Sociology and Criminal Justice, Old Dominion University, Norfolk, VA	2015

## PUBLICATIONS

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