NOTE TO USERS

TEACHERS' MORAL AUTHORITY: AN UNDERVALUED RESOURCE FOR SCHOOL ORDER AND SAFETY

by

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ABSTRACT

TEACHERS' MORAL AUTHORITY: AN UNDERVALUED RESOURCE FOR SCHOOL ORDER AND SAFETY

by

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Concerns about violence and disorder in U.S. public schools have led to expanded use of security measures and personnel (Devine 1996; Gottfredson et al. 2000; Garcia 2003) as well as renewed interest by researchers in school authority relations and discipline practices (McFarland 2001; Ingersoll 2003; Pace 2003; Arum 2004; Public Agenda 2004). Research has shown that when schools are smaller and function more like communities, student behavior is better and achievement is higher (Coleman and Hoffer 1987; Bryk and Driscoll 1988; Raywid 1993; Battistich et al. 1995; Battistich and Hom 1997). The comparative influence of factors that are associated with levels of school violence or disorder, however, has not been adequately assessed at the national level. This research uses a sample of public schools from the nationally representative 1999-2000 Schools and Staffing Survey (U.S. Department of Education 2004) and Structural Equation Modeling to assess the relative effects that school security measures and violence prevention programs, and two facets of school community, levels of parent involvement and teachers' authority over school discipline practices, have to student misconduct and violent behavior. Results indicate that the benefits of these two facets of

school community far outweigh the benefits of increased school security efforts in junior and senior high schools. Increased parental involvement is associated with higher levels of teachers' authority and a reduction in the use of security measures in junior, but not senior, high schools, suggesting that intergenerational closure (Coleman and Hoffer 1987) is higher in these schools. These core findings echo the importance sociological theorist Emile Durkheim attached to teachers' moral authority and the functioning of schools as communities early in the twentieth century. School size is, however, associated with both lowered levels of teachers' authority and an increase in the level of student misconduct and violent behavior. Further, an increase in minority concentration is associated with a disproportionate increase in school size and the use of security measures in city schools. The study concludes with the theoretical and policy implications of the findings, along with a discussion of the study's limitations and suggestions for further research.

SUMMARY

Concern over reducing student misconduct and violent behavior in public schools has escalated in recent years stimulating many policy actions such as increased school policing and security, zero-tolerance policies and violence prevention programs. While violent incidents in schools remain rare, addressing general disorder and the fear of violence in schools is important because they potentially undermine instruction at the micro level and social reproduction at the macro level. In addition, there is a growing concern that teachers and schools, particularly those serving disadvantaged communities, are suffering from an acute legitimacy crisis (Devine 1996; Toby 1998; Arum 2004). Legal and political challenges and decreased functioning of families and communities are hindering the bonding of students to schools, reducing schools' ability to instill pro-social orientations and the skills necessary for the labor market or higher education. Many schools and school districts have fallen back on criminal-justice inspired methods of securing order and safety. Such methods take little account of the roles of broader social forces, such as inequality, in contributing to school disorder or violence. They also ignore institutional features of schools such as large enrollments, high student-teacher ratios, and lack of strong school communities, as possible contributors to problems of negative student behavior. Researchers have found that when schools are smaller and function more like communities, student behavior is better and achievement is higher (Coleman and Hoffer 1987; Bryk and Driscoll 1988; Raywid 1993; Battistich et al. 1995; Battistich and Hom 1997). Two indicators of school community, parental involvement and teachers' authority over school discipline climates, have not been fully examined for

their protective influence on student behavior in conjunction with other school characteristics particularly at the national level.

Drawing upon criminological research on school crime and victimization as well as on sociological perspectives on school organization and authority, I use a nationally representative sample of U.S. public school teachers to address the following questions: To what degree is aggregate student misconduct in a school associated with increased levels of student violent behavior? How does this relationship differ across school level (junior high or senior high) and geographic location? What direct and indirect role does school size (i.e. school enrollment) and student-teacher ratio play in student behavior? To what extent is teachers' input and control over schools' disciplinary climates, as evidence of moral authority, associated with decreases in student misconduct and violent behavior, net of other factors? What demographic or institutional factors influence teachers' level of the moral authority – either negatively or positively? Is increased use of school security measures such as metal detectors, video surveillance and police and violence prevention programs associated with reductions in either student misconduct or violent behavior? Do increased levels of school security have any influence on teachers' authority over discipline?

To judge the relative effects of aggregate student demographics and institutional characteristics on student misconduct and violent behavior as well as the comparative efficacy of different means of trying to control or minimize these problems, this study uses Structural Equation Modeling and data collected from public junior and senior high school teachers by the nationally representative 1999-2000 Schools and Staffing Survey. The unusually large size and representativeness allows for comparisons of associations

between variables not only across school level, but also across geographic regions (e.g. city, suburban, town and rural). Structural equation modeling is the most appropriate statistical procedure for this research because it models latent, or unobserved, variables with greater efficiency and allows for the examination of both the direct and indirect associations of student demographics and neighborhood conditions to student behavior.

The analysis demonstrates that student misconduct is strongly associated with the level of student violent behavior. This suggests that attention to institutional factors which were found to contribute to both student misconduct like increased school size, higher student teacher ratios, and poor and minority student concentration is warranted. This research also uncovered indirect influence of differential resource allocation in city schools and of minority enrollment to student behavior. Senior high teachers in city areas where violence rates are highest report an increase in student misconduct and violent behavior as the student-teacher ratio increases. Moreover, an increase in minority concentration is associated with a disproportionate increase in school size and the use of security measures in both city junior and senior high schools. While school security measures and violence prevention programs were found to be widely used, and to be most commonly found in city schools, these showed very little association with teachers' reports of student behavior. Only violence prevention programs in suburban schools were associated with a very weak decrease in student violent behavior.

This study finds that the benefits of increased teachers' school-wide authority over discipline and of parental involvement far outweigh the benefits of school security efforts. Both junior and senior high school teachers report a significant decrease in students' misconduct and a smaller decrease in student violent behavior as their level of

authority over schools' disciplinary climates increases. Parental involvement is associated with a weak decrease in student violent behavior in both samples. And, while school size is associated with lowered levels of teachers' authority, particularly in city and town senior high schools, the number of school security measures in a school was found to have no negative association with this crucial aspect of school organization. This counters Devine's (1996) thesis that increased security is detrimental to the authority structure of schools. As evidence of the effects of intergenerational closure (Coleman and Hoffer 1987), increased parental involvement is associated with higher levels of teachers' authority over school disciplinary practices. Increased parental involvement in junior high schools is also associated with lowered reliance on of security measures. This may be further evidence of the protective influence of parental involvement. These core findings regarding the influence of teachers' moral authority and the functioning of schools as communities echo the importance sociological theorist Emile Durkheim attached to these in his writings early in the twentieth century.

While the use of cross sectional data aggregated to the school level makes these results suggestive rather than definitive, they nonetheless warrant further research on the efficacy of school community and school security measures on improving school order and safety. Current reform movements such as decreasing school size are, in part, an acknowledgement of the deleterious effects that a bureaucratic model of schooling has had on the ability of schools to create bonds with students and to foster positive behavior. The study's results suggest that further efforts to create more cohesive school communities would be beneficial with staffing ratios being more crucial in some instances than size. The findings suggest that even relatively small schools with lower

student-teacher ratios may be hard-pressed to deal with the most disruptive or dangerous students. Continued efforts to understand how wider forces shape school disorder and how schools can better function as social institutions are needed. Researchers also need to further examine how race and class factor into the disproportionate use of security measures in schools and to analyze the possible long-term effects of removing students from traditional schooling through suspensions or expulsions. The weakened efficacy of schools as social institutions paired with increased reliance on security may fundamentally alter the function of schools as social institutions and the life chances of youth particularly from disadvantaged communities.

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CHAPTER ONE
INTRODUCTION

School Safety and Disorder as a Contemporary Social Issue

One of the major tasks the founders of sociology grappled with was how modern societies in all of their complex dynamics are reproduced through human interaction. Social institutions like occupations, families and schools came to be seen as the primary way in which individuals learn to play differentiated roles in the social and normative order. Max Weber concentrated on how the organizing principles of bureaucracy brought forth by capitalism shaped social institutions and made them more efficient. But, he also felt that bureaucracy had the potential to be an "iron cage," constricting individual development and freedom. Emile Durkheim, however, focused on the functional nature of social institutions which he saw as crucial for stimulating social consensus, integration and cohesion. For Durkheim, these institutions had a moral duty and purpose in integrating individuals into the social structure. Without these functional institutions, individuals would become alienated from each other and modern society in all its complexity would cease to be a possibility. While he wrote about the role of many social institutions in society such as religion and the division of labor, Durkheim viewed schools as perhaps the institution best suited to teaching individuals the discipline and specialization required of modern society. As the first sociologist of education, he wrote extensively on how schools promote value consensus and the role of the teacher in this process.

This particular macroscopic view of schooling, while important for understanding how schools act to reproduce society, is far from explaining how teachers manage a

classroom of young people who are in a constant state of physical, emotional, intellectual and social change, have a tenuous grasp on the work they are commanded to do and are not, by in large, voluntarily in attendance. There are myriad social and institutional forces which shape students' behavior and the daily operation of schools that appear far removed from their wider sociological purpose. Middle range theorists (e.g. James Coleman, Talcott Parsons, and Thomas Hoffer) sought to further develop Durkheim's consensus sociology as it applied to the role of schooling in social reproduction. The institutional culture of schools as shaped by parental and community input, student peer groups and the nature of teachers' roles emerged as central to understanding how students learn normative values and pro-social behavioral orientations. When value consensus and normative closure is stronger among the relevant social actors involved in schools, schools function more like communities and students "bond" better to the schooling process. A crucial aspect of this is the influence that teachers have on school culture, particularly the discipline climate. Teachers do not discipline in isolation; they must do so in conjunction with their schools' wider discipline climate.

But, there is a growing concern from those both sensitive to and critical of the consensus perspective on the role of schools (Devine 1996; Ingersoll 1994; 1996; 2003; Arum 2000; 2004) that teachers and schools are suffering from a acute legitimacy crisis. Legal and political challenges and increased resistance by youth are hindering them from bonding students to their function, imparting pro-social orientations and the skills necessary for the labor market or higher education. Part of this crisis has to do with how they are constricted by school bureaucracy and centralization and lack of resources. The nature of their work is determined largely by forces beyond their classroom. On the

other, the support that they traditionally received from families and communities has broken down. Schools may be considered bureaucratic oases in the communities they serve. The struggle for social cohesion in schools is further compounded by the primacy of peer groups and popular culture for determining how youth interact with social institutions like schools. The weakness of schools to function like communities means that youth interaction, particularly within the intense atmosphere of schools, is shaped by the expectations and pressures of a highly materialistic and competitive culture. This can produce school environments which are rife with psychological, emotional and even physical conflict.

The starkest example of this is the rash of school shootings which took place between February, 1996, and March, 2001. These "rampage" shootings (Newman et al. 2004) have drawn attention to the relevance of "low level" forms of school violence such as bullying, sexual harassment, hazing and emotional violence (Dupper and Meyer-Adams 2002; Espelage and Swearer 2004). There is growing attention to how "everyday" forms of misconduct, anti-school behavior and peer-group conflict which schools are at a loss to deal with may be necessary (but not sufficient) causes of more serious victimization in schools (Newman et al. 2004: 230). In the case of many of the school shooters, their history of being victimized psychologically as well as physically has been suggested to be a source of their calculated rampages (Newman et al. 2004). As a result, the school shootings opened new policy widows at the local, state and Federal levels with regard to how school safety is secured and unruly student behavior is handled.

Urban public schools, however, have a long history of contending with the threat and occurrence of violence and disorderly behavior which has plagued their attempts to

offer a quality education to their clientele for decades (Stinchcombe 1964; NIE 1978; Gottfredson et al. 1985; Welsch et al. 1999). Even before the rash of school shootings, criminal justice agencies were responding to a dramatic increase in crime and violence in urban areas during the early 1990's. "Command and control" approaches to school safety such as the use of security personnel, metal detectors and video surveillance spread rapidly. The Federal government played a key role in the deployment of these measures through the 1994 Safe and Drug-Free Schools and Communities Act, a response to the extensive spread of gangs in cities and urban schools. This act provided $630 million in funding for violence and gang prevention programs in schools. In specific response to the school shootings, the 1999 Cops in Schools program, an offshoot of the 1994 Community Oriented Policing Services sponsored by the U.S. Department of Justice, began funding school resource officers with grants of up to $125,000 over a three-year period for community and school awardees. Between its inception and 2003, this program funded 6,100 school resource officers in middle and secondary schools at a cost of more than $700 million (U.S. Department of Justice 2004).

The school shootings, however, engendered new and more drastic forms of school security efforts. In addition to the increase in the use of police and surveillance technology, new strategies for school safety emerged such as requiring clear book bags, identification cards, systematic locker searches, cameras in school busses, zero-tolerance policies and the development of "code blue" or "lock down" tactics in the event of a school shooting. Many school districts now require school personnel to take courses on psychological profiling, anti-harassment, peer-mediation and violence prevention. In some states and school districts, this training has now become a prerequisite for teacher

certification. Violence and gang prevention programs have become ubiquitous with about 62% of all secondary schools reporting that they have such programs in place.[1] Garcia (2003) found that among the school safety administrators interviewed, more than two-thirds reported that there had been "major or somewhat major changes to school safety plans in the past two years" (35). This occurred in urban as well as non-urban school districts.

But, school security and police actions are more prevalent in large urban schools which serve large numbers of poor and minority students. As part of a "school safety initiative" in early 2004, the Mayor of New York City, Michael Bloomberg, along with the schools' chancellor Joel Klein, identified more than a dozen schools plagued with violence that would be targeted with increased policing. Part of the violence problem in these schools may have to do with the fact that they are some of the largest schools in New York City. Five of the twelve "impact schools" had enrollments above 3000; three had enrollments above 2000. A year later, many of the impact schools showed great reductions in violence and crime (Office of the Mayor January 3, 2005). Exactly how increased policing at these schools worked to reduce violence levels is not clear, or whether these reductions will be lasting. Perhaps increased police presence at these schools – in the entryways, hallways and cafeterias – curtailed violent acts. On the other, those students who were prone to violence were targeted and removed from these schools. These types of targeted policing behaviors have led some, however, to suggest that the "prison-industrial" complex has now been extended to the school system (Goldberg 2004).

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[1] These figures are drawn from data collected by the 1999-2000 Schools and Staffing Survey (U.S. Department of Education 2002).

How Protective are Schools?

School shootings and increased attention to everyday violence in schools naturally raised concern regarding the safety of public schools, and led to increased attention to school security efforts. Some claim, however, that the media and political sensationalism caused unnecessary public anxiety regarding violence in schools (Gottfredson 2000; Thompkins 2000; Jackson 2002). Disentangling the discursive rhetoric about school violence and safety from the statistical reality is necessary to generate a clear picture of scope and nature of the problem. First, the likelihood that a child will be killed at school is – and always has been – significantly lower than outside of school. This even applies to the period when the rash of school shootings took place. Between 1994 and 1999, only 1% of fatalities among young people occurred at school (Anderson et al. 2001). Between 1992 and 2000, the likelihood that a youth between the ages of five and nineteen would be murdered was at least seventy times higher out of school than in school (DeVoe 2003: v). The incidents of homicide gun attacks at school decreased markedly soon after Columbine in 1999. A possible source of this decline may be the effectiveness of school security efforts which are aimed at preventing guns and other weapons from being brought into school. A number of potential school shootings have allegedly been prevented by attention to the significance of "warning signs" such as hit lists posted on the internet or students alerting school officials to other students who "brag" about carrying out an attack.

Another fact which suggests that students have become safer in schools it that their experiences with more general forms of crime and violence have also declined. Between 1995 and 2001, the percentage of all students experiencing theft in school

decreased from seven to four percent and those experiencing violent victimization decreased from three to two percent (DeVoe et al. 2003: v). In their ongoing data collection efforts on youth risk behaviors, The Centers for Disease Control and Prevention (2004) report that the number of high school students who had been in a physical fight at school has decreased from about sixteen percent in 1993 to about thirteen percent in 2003. The percentages differ, however, according to gender and ethnicity. In 2003, the number of males getting into a fight in school was higher than females (18.0% vs. 17.1%) and higher for blacks (17.1%) and Hispanics (16.7%) than whites (10.0%) (The Centers for Disease Control 2004).[2]

However, the rate of victimization is actually higher in schools than not, and despite the dramatic decrease in the number of incidents, the difference in the rate is rising. Using comparable data sources and controlling for number of hours spent in each setting, in 1998 youth at school[3] versus away from school were one and a half times as likely to be a victim of nonfatal serious violent crime (rape, sexual assault, robbery, and aggravated assault), three times as likely to be a victim of nonfatal serious violent crime and simple assault[4] and more than four and a half times as likely to be the victim of theft (Appendix A, Table A.2). In 1998, youth experienced a rate of total nonfatal violent crime (serious and simple assault plus theft) at school which was *three and a half times* the rate they experienced out of school.

When rates for in school and out of school victimization are compared between 1998 and 2001, youth appear to have become even more at risk for victimization in

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[2] There is conflicting information, however, regarding student safety at school. The CDC also reports that the percentage of students threatened or injured with a weapon on school property has increased.
[3] The source of this data, NCES' *Indicators of School Crime and Safety* (2000), calculated "at school" as also including time spent at school functions and traveling to and from school.
[4] Simple assault is defined here as physical harm without the use of a weapon (i.e. use of fists).

school.[5] The rate for nonfatal serious crime in school increased to 1.8 times that of out of school in 2001 as opposed to 1.5 in 1998. The overall rate for serious and simple assault and theft increased from 3.6 to nearly 4 times that for out of school between 1998 and 2001. In 1998, 60% of the property violations and violence experienced by youth occurred at school. This is a slight increase over the 1991 finding that 56% of juvenile victimizations occurred in or on school property (Snyder and Sickmund 1995). The rate vs. out of school has increased slightly even as juvenile crime and victimization out of school has dropped significantly since the mid 1990's (Kaufman et al. 2000; Travis and Waul 2002). It appears that out of school, youth became less violent more quickly than the adult population, reversing the dramatic rise in youth violence which started in the mid 1980's. "Crime and victimization outside of school declined from about 139 crimes for every 1,000 students in this age group in 1993 to 117 such crimes in 1997" (Kaufman et al. 2000:11). Not only did the juvenile *superpredator* (DiIulio 1995) not materialize as predicted, the decline in youth violence out of school was larger than the overall drop in total violence after 1994 (Travis and Waul 2002: 6). While the overall number of victimization incidents has decreased both in and out of schools, youth are comparably more at risk for victimization in school.[6]

A third issue of concern regarding students' experiences with victimization in school is the reported increase in "risk behaviors" typically associated with urban youth (e.g. violent behavior, gang involvement and drug and alcohol use) to town and rural areas (Miller 2001). This is an important trend considering the historical focus on youth

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[5] These figures are presented in more detail in Appendix A, Table A.3.

[6] It is important to note that this fact depends on geographic location. In urban areas, for example, youth are protected against harm more in school than out of school when compared to their non-urban counterparts (Newmann et al. 2004: 54). This difference notwithstanding, youth in general are more at risk for victimization in school than out of school.

risk-behaviors and school disorder in urban areas. Longitudinal results from the National Crime Victimization Survey (NCVS) indicate that youth reported no differences between the likelihood of theft, violent victimization, and serious violent victimization at school between urban, suburban, and rural areas (DeVoe et al. 2003). Twenty-nine out of 1000 students in urban schools were victims of a violent assault in 2001. For students in suburban schools, 28 per 1000 reported being assaulted. For rural areas, 25 out of 1000 reported being assaulted (8). In a study using data from the National Longitudinal Study of Adolescent Health (Add Health), researchers from the Manhattan institute (Greene and Foster 2004) found that suburban high school students were only slightly less likely to engage in sexual contact, drug use and violent activity than their urban high school counterparts in the late 1990's. A report by the U.S. Department of Education (2001) found that 36% of rural schools and 35.5% of suburban schools were found to have high crime rates as reported by principals while only 28.5 percent of urban schools were found to be classified as violent (9).[7] Gottfredson et al. (2000) find little difference in students' experiences of physical victimization across geographic location. They also find that junior high schools are on average more violent than senior high schools. Nearly twenty percent (19.3%) of urban junior high school students reported a physical attack. Suburban students reported a slightly higher figure at 19.6 percent and rural students reported 18 percent. While nearly half as many (11.6%) urban high students were the subjected to physical attacks as their junior high school counterparts, they experience more than the suburban and rural high school counterparts (9% and 8.9% respectively). Taken together, these data suggest little difference in junior high students' experiences

[7] Despite these limitations, these are growing number of indicators which suggest that non-urban schools face similar problems in terms of student behavior that urban schools face.

with violence between urban and rural areas and only slightly higher levels for senior high school students when accounting for geographic location.

The examples of large urban schools where violence may still be a problem notwithstanding, physical conflict has apparently decreased in U.S. public schools. It should be noted that students' experience of bullying has evidently increased nationally. In 1999, five percent of 12-18 year olds reported that they were "picked on or made to do things they did not want to do" (Devoe et al. 2003: 16). The percentage increased to eight percent in 2001. This figure was higher for males (9%) than females (7%) and older students reported being bullied less. In 2001, only two percent of 12th-graders reported being bullied in school while nine percent of 9th graders and fourteen percent of 6th graders reported being bullied (DeVoe et al. 2001: 16).

There is some limitation to the viability of student self-reports which may call these comparisons into question. It is a well-established fact that students often over-report their level of deviance and experience with victimization on self-report surveys (Gottfredson and Gottfredson 1985; Furlong and Morrison 1994; Welsch et al. 2000). Surveys like the National Crime Victimization Survey are faulted for a "confirmatory hypothesis approach" which assumes that "school violence is a problem and surveys ask about opinions or experiences related exclusively to violence" (Furlong and Morrison 1994: 145). Other sources of data on violence in schools suggest that victimization occurs more often in urban schools than elsewhere, although not overwhelmingly so. In terms of the percentage of schools where law enforcement was involved in a violent or criminal event, Gottfredson et al. (2000) find that in the 1997-98 school year, nine percent (9.4) of all urban schools reported a physical attack involving a weapon to local

law enforcement. The percentage for suburban and rural schools was about seven percent (7.4) and five percent (4.7) respectively. Gottfredson et al. (2000) estimate that fifty percent (50.9) of urban schools report fights or attacks without a weapon. For suburban and rural schools, the percentages were forty-five percent (44.8) and forty percent (40.1) respectively. A survey of principals conducted during the 1999-2000 school year, the U.S. Department of Education's Survey on School Crime and Safety, found a similar difference between urban and non-urban schools in the number of violent incidences with or without a weapon reported to the police. Forty-four percent of urban principals reported a violent incident to police (DeVoe et al. 2003: 23) with thirty-five percent of suburban principals reporting one. Surprisingly, forty percent of principals in town schools reported a violent incident to police. Rural principals reported the lowest percentage at twenty-nine. These data not only confirm persistent differences between urban and non-urban schools, but also that the number of attacks reported to police have declined.

The higher numbers of violent events reported to the police by urban schools may be due in part to the potential severity of attacks particularly when gang activity may be present. There is also the likelihood that student self-reports of violent behavior and victimization as collected by the YRBS, Add Health and other datasets are overstated. As will be demonstrated in this research, teacher responses collected by the 1999-2000 Schools and Staffing Survey (U.S. Department of Education 2004) indicate that urban schools do in fact experience more violence and disorder than their non-urban counterparts similar to the principal reports above. Despite the overall decline in violent victimization in public schools and regardless of the varying evidence of the differences

in victimization across geographic location, the number of students being injured in a physical fight has remained fairly stable over the last decade at around four percent of students surveyed (CDC 2004). The CDC (2004) report indicates that males reported higher rates of injury in a fight in 2003 (5.7%) than females (2.7%). Blacks and Hispanic students reported higher rates than White students (5.5% and 5.2% vs. 2.9% respectively). While the likelihood that youth will be killed at school is extremely low, these figures indicate that schools are not as protective as they should be, particularly for male and minority youth.

The Wider Social Context of School Violence and Disorder

While the possible unreliability of student self-report data tempers the conclusion that non-urban schools have become part of the "concrete jungle," there is enough evidence to suggest that they are not immune to disorder and violence. What are some possible explanations for this reported spread in student unruliness and violent behavior to non-urban areas? If we take the expression that "schools are a microcosm for society" seriously, we should not be surprised that youth bring the behavioral dispositions learned in their families and communities to the classrooms, hallways, lunchrooms, playgrounds and school busses. Cultural critics and sociologists are arguing that the fabric of civic (and civil) society is fraying (Wolfe 1989; Putnam 2000; Phillips and Smith 2003) and this affects social life in and outside of cities. They argue that the changing nature of the labor market has strained communities, neighborhoods, families and social institutions like schools. These changes have affected both working class and middle class families in both urban and non-urban areas. Steady "good" jobs once available to the working classes in urban areas such as automobile and steel manufacturing and rural populations

like farming are being automated, outsourced or simply eliminated. Individuals strained by disadvantage turn to adaptive strategies such as alcohol and drug use and illegitimate economic activities (i.e. drug dealing, robbery and theft, gambling). Those in the middle class are also experiencing strains that affect their ability to parent, albeit of a lesser degree than the "truly disadvantaged." Capital mobility, corporate reorganization and relocation and economic recessions have required those working in business and other white-collar professions to endure the brunt of career changes, relocation and periods of serial unemployment to maintain middle-class financial stability. Many middle-class children are growing up in households where parents must make work their first priority, particularly if they live in single parent households.

As a result of these economic changes, people are participating less in those institutions that build community – "third" spaces like social clubs, churches, Parent Teacher Organizations, and the corner barbershop (Putnam 2000). As civic engagement decreases, people share less in the daily activity of civil society and they become more alienated from each other. There is less incentive to act in a pro-social manner. There has always been the tendency for alienation to occur in cities, but there is growing attention to a decline in polite and civil behavior in public life in general (Phillips and Smith 2003). There are abundant accounts of events where seemingly normal individuals lash out violently when they are frustrated in the course of seemingly everyday activities. These include the "rages" (e.g. road rage, airport rage, shopping cart rage), workplace shootings, and parents fighting at children's' soccer and hockey games. It is no surprise that the ill effects of alienation experienced by adults as social capital decreases would filter down to youth as they interact with the institutions such as schools.

The increase in hazing and bullying, along with everyday forms of resistance such as disrespecting teachers suggests that the coarsening of everyday life in the U.S. has affected the daily life of schools. The National Education Association's *Status of the American Teacher* survey given every five years since 1966 indicates that among "factors that hurt teachers most in their efforts to provide the best service in their teaching," "discipline and negative attitudes of students" ranked below sixth place in 1991 (National Education Association 2003). This factor ranked *second* in 1996. Perhaps reflecting the overall drop in crime and victimization in schools after this period, this factor declined to fourth place in 2001.[8] Gottfredson et al. (2000) report that 27% of teachers nationally report that minor misconduct interferes with their teaching "a fair amount" or "a great deal" of the time (26). In a more recent and substantially more pessimistic nationally representative survey of public school teachers, almost 70% of teachers say that "horsing around" and students talking out of turn are a serious problem in their school (Public Agenda 2004: 17). A teacher reports in an interview conducted for the survey that:

> [w]hat I find amazing, and I teach middle school, seventh and eighth graders, is this lack of morals. There's just a disrespect for classroom materials; they'll write all over things, desks, rulers...I don't even think they think [it's] wrong, and it just amazes me. The gum chewing...the yawning aloud or putting their feet up on the desk...like they don't know that was inappropriate (Public Agenda 2004: 17).

What has emerged from this critical analysis of the social problem of school violence is that serious incidences of violent behavior in schools has decreased on the whole, but persistent patterns in rates differ depending on geographic area and population. Violence in schools is not as prevalent as the media might make one think, but teachers report increased student resistance and disrespect in widely varied

[8] It should be noted that the relative ranking of the items supplied on this survey may change even if the particular item does not change. Thus, student misconduct may have decreased in relevance to issues of leadership or negative attitudes of parents as the forces which shape them have changed.

geographic locations. Harassment, bullying and the disorder caused by unruly student behavior in classrooms has tremendous consequences for student learning and teacher job satisfaction. One disruptive student can ruin a teacher's lesson plan. Students who fear being bullied, stabbed or shot may have difficulty concentrating in class (Gorski and Pilotto 1993). Students who fear victimization at school are likely to skip school altogether. Despite the well-documented decrease in overall victimization in schools, the CDC report (2004) indicates that the number of high school students who skipped at least one day out of concern for their safety increased from about four and a half percent (4.4) in 1993 to about seven percent (6.6) in 2001. This figure has since dropped to about five and a half percent (5.4) percent in 2003. Where possible, parents seek to transfer their children out of schools where academic success is low and violence and misconduct are chronic. Teachers seek to leave disorderly city schools for better run suburban schools. Where "white flight" has typically been the preferred exit strategy for those seeking better schools, many school choice initiatives such charter schools and voucher programs allow students and parents to break from their school system without actually leaving. Exodus due specifically to disorder has also reached the level of Federal codification. The "Unsafe School Choice Option" of the *No Child Left Behind Act* signed into law by President Bush in January, 2002, states that:

> a student attending a persistently dangerous public elementary school or secondary school ... or who becomes a victim of a violent criminal offense ... be allowed to attend a safe public elementary or secondary school within the local educational agency (U.S. Department of Education 2002).

This provision provides a formal rationale through which parents can remove their children from disorderly schools. The constant migration of students and human resources from these already unstable schools reduce their ability to respond to their

disorder especially when the greater needs of poor and minority students are taken into account. A critical mass of students without a stake in behavioral conformity translates into a dangerous school where teaching and learning is perhaps the last thing on teachers' and administrators' agendas.

Institutional Sources of School Disorder and Violence

Weakened Moral Authority of Schools

Because youth are more heavily concentrated in schools than anywhere else, their greater rate of victimization in or around schools might be expected. Bearing this in mind, along with the overall decline in civility, researchers suggest that another factor, a decline in teachers' authority, may also have contributed to increased rates of low-level violence and disorder (Grant 1998; Toby 1998; Arum 2004). A recent history of legal challenges by parents and students may have reduced the legitimacy of schools' and teachers' moral authority to discipline. During the "student rights contestation" period from the 1960's to the 1970's, students and parents challenged school disciplinary actions such as suspension and expulsion through legal action (Arum 2004: 60-67). Produced in part by an expansion in "adversarial legalism" (5), these challenges have led schools to "reduce their disciplinary responses to student misbehavior" (13) for fear of litigation. As schools scaled down their discipline strategies, fewer sanctions for punishing misconduct were available to schools. Some districts have made it illegal for teachers to physically touch students, as might be necessary in breaking up a fight, in response to pressures from teachers unions and fear of lawsuits from parents. In a Public Agenda survey (2004), seventeen percent of teachers said that their school has an official policy barring them from getting physically involved in breaking up student conflicts.

As a consequence of these challenges and reduction in the everyday authority of teachers, students have become "less willing to accept school authority or discipline as legitimate" (Arum 2004:13). Schools now have fewer disciplinary mechanisms with which to effectively socialize youth to accept conventional and normative behavioral expectations. Moreover, what mechanisms they have such as detention and suspension do not pose the deterrent effect they once had. The humiliation and stigma of these methods of discipline have worn off as youth now see schools authority as suspect. This effect is augmented for many poor and minority youth who may resist their teachers' and schools' authority because it represents an oppressive and discriminatory culture. They may also do so because the unlikelihood of attending college and lack of legitimate economic opportunities may make them reluctant to make the sacrifices necessary for academic success. This process is exacerbated when the schools that minority and poor youth attend do not have a critical mass of motivated and inspiring teachers.

The lasting legacy of this expansion of legal consciousness means that parents and youth are now more than ever are apprised of their rights to due process and autonomy. While a legally well-informed school clientele is ethically and practically necessary for the maintenance of democratic society, youth are quick to assert their rights, leaving teachers and school officials with painfully few alternatives for disciplining unruly students. The spread of legal protections paired with a dominant value system that emphasizes individual gain and autonomy over community further empowers student resistance. Arum (2004) argues that these "institutional factors related to court climates ... have combined with other social factors to create school environments that are particularly chaotic, if not themselves crime-producing" (4). Because of pro-student

court climates and fear of litigation "educational instruction [has become] the primary task of the teacher while student discipline [has become] the job of school personnel who [specialize] in its legally tolerated administration" (186).

The Social Implications of School Security

The proliferation of school security strategies and dividing of the socializing and academic roles of teachers have produced "undertheorized" detrimental effects on the social and educational climate of schools (Devine 1996). The use of bureaucratic and technical procedures to secure school safety is the final stage in the "long-term hierarchicalization of the institution of the school," a process which has had the unintended consequence of undermining the moral authority of teachers and schools (ix). The "police-state counter action" embodied in security personnel, metal detectors and video surveillance "becomes entrenched in the normal architectural setting of the school" (75). Youth are habituated to a rigorously enforced "lock down" which pits the culture of the peer group against the top-down hierarchy of school discipline enforcement. Either due to the size of their classes, the size of the school, or "[p]recisely because the teacher's and the principal's identities are fragmented, this delegation of responsibilities does not 'work' in any pragmatic organizational sense: no one is really in control of the building" (116). Insofar as teachers' and administrators are increasingly focused on meeting school and district testing benchmarks or securing a modicum of order and safety, they are not able to attend to minor transgressions and conflict. This breeds a culture of permissiveness in schools where more serious misbehaviors take place with the tacit approval of the school administration, or at least the failure to react. This may be the reason why victimization in school, while on the decline, is still greater than out of

school. This split between the academic and disciplinary functions within the school undermines teachers' and schools' moral authority, a crucial component needed in binding students to the educational process and, thus, to the dominant value and behavior norms of the wider society.

The fear of school violence, reliance on command and control strategies and the *de facto* abdication of teachers' power have created an "unchecked culture of violence" in schools (Devine 1996: 14). A school "environment in which teachers attempt not to see disruptive student behaviors" creates a disorderly school, one which "is perceived by (students) as a space lacking structure, one to which they must quickly adapt if they are to survive in" (176). This adaptation means that "low level" forms of physical and symbolic violence – ritual hazing, bullying, teasing and sexual harassment – flourish in this vacuum. Faced with growing student resistance and weakened moral authority, teachers are quick to turn a blind eye to the dissension and conflict that take place among students as they navigate the "pressures teenagers generate in one another to climb atop the social pecking order and stay there, policing the boundaries of popularity against 'wannabes'" (Newman 2004: 21). The cultural and social dynamics of youth peer-groups lies in increasing opposition to teachers and administrators. The undermining of teachers' and schools' moral authority by legal and social forces may actually be contributing to violent behavior in schools. In the most disorderly schools, the carrot of academic achievement has lost its flavor and the stick of school sanctions has lost its sting.

A Reapplication of Broken Windows Theory

Devine's analysis (1996) invites a reapplication of the broken windows theory of crime set forth by Wilson and Kelling (1982). Their (1982) theory of neighborhood crime suggests that it is not so much that disorganized neighborhoods produce delinquent and violent individuals; rather, people who are predisposed to such behaviors are attracted to places where they feel they can operate without retribution. Broken windows and "quality of life crimes" do not lead directly to more serious crime in a particular area; they signal a lack of safety which encourages people to stop watching, listening and participating in collective informal control. Members of that community who might otherwise provide an informal deterrent factor retreat from this disorderly public space. As they retreat, so do informal social control and a sense of collective efficacy and community, organic features of neighborhoods which help prevent delinquency. This prevalence of small infractions sends a signal that "no one cares" thereby attracting people to these areas who are interested in conducting more serious crimes. Thus, protecting the mechanisms of informal social control is crucial to preventing serious crimes.

The policing practices generated by the broken window theory are currently being applied to the prevention of school disorder in New York City public schools. The City's "new school safety plan will focus on areas where there is frequent disorderly behavior, such as cursing or taunting other students, which can create an atmosphere conducive to more serious incidents" (Office of the Mayor January 5, 2004). This policy takes as central the assumption that typical student misbehaviors may lead to more serious ones. Moreover, in acknowledgement of the need for social closure, a central element of

informal social control, the plan "will call upon all adults, including teachers, principals, deans, guidance counselors, administrators, [School Security Officers], police and other school staff to maintain order in hallways, cafeterias and other school locations" (Office of the Mayor 2004).

Devine's thesis (1996) is that as responsibility for handling serious offenses is subcontracted out to school security officials, acts of defiance or resistance such as cutting class, verbal disrespect and general resistance to the educational process are increasingly tolerated. According to the broken windows theory, this breeds an environment where more serious events might take place. Toleration of small infractions suggests to students that there is no true authority in their school. But, the simultaneous presence of intensive school security perpetuates the fear that something serious is likely to occur and gives school security the right to single out unruly students. Thus, students are coerced into complying for fear of being singled out for "behavioral management therapy" or in school suspension.

Students are not entirely to blame for the more serious behavior. Due to the fragmentation of the school's social climate as a result of the separating effect that tighter school security engenders, teachers and schools do not have the moral authority to effectively discipline them. The "broken window" of minor student infractions is provided by the "open window" of teachers' abdication of responsibility for school discipline to others either due to institutional conditions or fear of legal retribution. This sends a signal to students that no one is watching (because no one may, in fact, be watching beyond the scope of surveillance cameras), reducing the effectiveness of informal sanctions and formal mechanisms such as detention and suspension. This is

perhaps why incidences of hazing and bullying have been on the rise in public schools: there is simply not enough attention being paid to students.

Communal School Organization and Student Discipline

It appears that a collusion of social, legal and cultural factors have altered contemporary organizational responses to student unruliness which make the issue a complex one to address. Much of the recent research and public policy efforts regarding violence prevention and safety in schools have focused on bureaucratic and technical solutions. There is also a growing range of "discretionary" (Gottfredson et al. 2003) violence prevention programs available to schools which cover a wide range of approaches aimed at reducing student violent behavior. These programs such as "Second Step" and "Assertive Discipline" involve introducing students to a range of elements such as specialized curricula, behavior modification strategies, counseling arrangements and/or recreational programs to teach them to avoid violent behavioral choices. While the idea that such programs may have great potential in reducing student misconduct and violent activity is attractive, Gottfredson et al. (2000) find that the majority of these programs are poorly implemented and do not consider social and school context adequately.

The limitations of add-on discipline programs and the financial resources levied on school security, very little effort has been paid to the social resources that should exist in schools as protective of student anti-social behavior. "Comprehensive approaches to school violence and discipline generally have not been part of the reform effort, and when there has been action taken, it is safety that has been the focus, not the day-in, day-out, disruptive behaviors that interfere with teaching and learning" (Barton 2000: 235). Instead of asking which school security methods work the best, researchers sensitive to

the educational and social context of schools ask a different question: What role does the social and moral climate of schools play in this issue? As suggested by the broken windows theory, informal social control is an important factor in preventing the spread of crime. The informal social control of schools is normally provided by the moral authority of teachers and the resulting (or coexistent) self-regulating behavior of students. Wider societal challenges to schools' and teachers' moral authority and the effect of student poverty on school order, particularly in urban areas, are actually "mediated by the organizational structure and culture of the school and can potentially be managed in different ways" (Welsch, et al 2000: 273).

Since the mid 1990's, there has been renewed emphasis on the role that school organization plays in student and school outcomes. Researchers are now "rediscovering" organic organizational processes within schools such as collegial relationships (Bidwell and Yasumoto 1999), school climate and community (Bryk and Driscoll 1988; Newman et al. 1989; Raywid 1993) and supportive leadership (Rowan et al 1991; Battistich et al. 1997). Particularly encouraging are those studies which suggest that schools that function like communities – where networks are dense and intergenerational and teachers have "extended" or "diffuse" roles (Newmann 1981; Bryk et al. 1984) – are better at securing attachment and creating an orderly atmosphere (Lee and Smith 1984; Bryk and Driscoll 1985; Raywid 1993; Battistich et al. 1995). When teachers are given the responsibility for this moral functioning, student achievement is higher and students are better behaved. In their landmark study comparing Catholic schools to public schools, Coleman and Hoffer (1987) found that the shared sense of values and norms provided by Catholic schools' religious orientations was responsible for improved student

achievement and behavior when compared with their public school counterparts. This effect was particularly advantageous for inner city minority students. They argued that it was primarily due to the "intergenerational closure" fostered by Catholic schools between parents, the school community, teachers and students. Teachers in Catholic schools were found to have more influence over their students because parents shared in the value system and normative behavioral expectations of the school. This normative closure is argued to foster an embedded and functional community in Catholic schools. Coleman's theory of intergenerational closure and the functional school community would eventually give rise to the theory of social capital, a theory which would influence a wide variety of scholarship on the public and private benefits of social networks and civic engagement (e.g. Putnam 2000).

Public schools, the focus of this research, have been suggested to lack communal organization particularly when it comes to discipline climate (Bryk and Driscoll 1986: 11; Gottfredson et al. 2000: 4-8). They are typically large and highly bureaucratic, particularly in urban areas. They are also in a state of constant curricular reform, have high teacher and administrator turnover and are subject to legal constraints – elements which make it difficult for them to develop an institutional memory for organic design features like communal organization. In addition, they educate a culturally heterogeneous population and draw their clientele from a large geographic area, especially for junior and senior high grades, making it difficult for public schools to benefit from the social capital of intergenerational closure. The factors which stimulate communal school organization for "common" schools are not well understood and there

have been few systematic attempts to discover these (Bryk and Driscoll 1988; Battistich and Hom 1997).

While Catholic schools have apparently lost some of their efficacy in controlling student behavior (Mocan et al. 2002; Uekawa 2002), perhaps the legacy of their effectiveness is applicable to all schools: when disciplinary actions are seen as fair and legitimate by students; when sanctions are consistently enforced; and, when teachers have adequate input and support over disciplinary procedures, students are better disciplined. An increase in teachers input and support with schools' school-wide discipline climate in tandem with a quality academic atmosphere can increase attachment and achievement, which are necessary for good behavior among students (Hirschi 1969; Gottfredson and Gottfredson 1985; Mayer and Leone 1999; Arum et al. 2004).

Well-communicated, uniformly applied and swiftly engaged disciplinary actions are not sufficient. Students must also feel that the punishments for transgressions are legitimate. The deterrence model of punishment, that "setting stricter rules and punishments will reverse the problem and bring most misbehaving students into line" (Arum 2004: 163) will backfire if students have not also "bought in" to their school's discipline climate. One of the purposes that schools emphasize in trying to sell their rules to their students is that the rules are designed to insure their daily safety. As Metz (1978) explains:

> Order can be maintained only if the vast majority of children in the school voluntarily abide by the rules and comport themselves in a reasonably decorous manner. They need not do so gladly or because they understand the reasons for doing so, but do it they must or the adults cannot prevent the school from being a raucous and unsafe place. The methods a school staff uses to induce this voluntary cooperation in the students and the degree of their success are very important ingredients in the life of the school (152).

Teachers do not discipline—or fail to discipline— in isolation, but in complex relationship to features of the school and neighborhood environment. They have to behave in ways which makes sense in the "organizational habitus" (Diamond et al. 2004) of their school. Depending on the administrative structure and culture of a school, teachers may have more or less input, shared responsibility and support with discipline. Teachers' authority over the discipline climate allows them to use their own hard won knowledge about "what works" with their students. In addition, the more input teachers have, the more likely they are to come to a consensus about what works. With consensus comes the shared responsibility of consistently enforcing rules in all areas of the school. When students find that teachers are on the "same page" when it comes to school rules and their enforcement, they also sense that their teachers are connected to a wider moral order (even if it is a moral order only as wide as the school building). They are more likely to trust their teachers' efforts to keep them in line, particularly when expectations for behavior are clear, and sanctions are swiftly carried out with adequate support from school administration.

The Study

While few would contest the basic notion that teachers' moral authority is beneficial for schools and students, little research has been done to assess its effects across a broad range of public schools. The current study focuses on this issue, addressing issues of teacher authority and effects on school discipline in junior and senior high schools in urban, suburban, town and rural neighborhoods with widely varying socioeconomic and demographic characteristics. This research uses the 1999-2000 Schools and Staffing Survey (U.S. Department of Education 2004) along with 2000 U.S.

Census data to analyze the effect of teachers' authority over and consistency with their school's discipline climate on student misconduct and violent behavior. A school where teachers have more control and support with discipline may be protective of the pervasive effects that poverty and social disorganization have on school order. Attention to how facets of school organization like school size, student teacher ratio, parental involvement and school security measures shape their authority can help improve understanding of the "undertheorized" nature of school violence. Examining the role that different facets of school organization play in student behavior and achievement is pragmatically important insofar as these are the only things over which education policy makers have any control. Of particular interest here is the relative effect that school security measures such as police officers, metal detectors, video surveillance and violence prevention programs have on student behavior in compared to the effect of teachers' authority to discipline in schools.

This research also controls for the indirect effect that socio-demographic forces may have on student behavior through pertinent elements of schools' organization. As will be detailed in the review of literature, the social disorganization posed by concentrated poverty in schools can lead to disorderly and even violent environments. But, this draws on research that suggests that resource inequality of public schools has independent effects on student achievement and behavior above and beyond that of individual and aggregate student demographics. Resources vary greatly within school districts based on patterns of racial and class segregation (Kozol 1992; Burtless 1996; Wenglinsky 1997; Condron and Roscigno 2003). How minority and poverty concentration in public schools shape important elements of school functioning like

school enrollments, student-teacher ratios, parental involvement and teachers' authority will be addressed. Due to a significant amount of latitude given to school boards in allocating resources, more motivated and connected parent communities (i.e. middle class parents) capture a disproportionate share of funding (Condron and Roscigno 2003: 21). Thus, social disorganization in the area surrounding a school stands as a proxy for this effect.

This research improves upon existing research on school disorder in three ways. First, the use of a nationally representative sample of U.S. public schools and teachers allows for exploratory models of student misconduct and violent behavior to be compared across a number of sociologically pertinent subsamples. One subsample stratum is a school's geographic location – whether or not a school is located in an urban, suburban, town or rural area. Because of improvements in the coding of schools' location included in the 1999-2000 SASS, this research is able to identify schools located in towns which were previously included in the "Rural" category. A second stratum of subsamples involves the level of social capital associated with a school's state. In a methodological innovation, schools were organized by states into one of four levels of social capital using the scale developed by Putnam (2000). Regional differences in civic participation (i.e. social capital) have been shown to vary in concert with other indicators of social well being such as crime, educational attainment and violence. Like others (Coleman and Hoffer 1987; Bryk et al. 1993), Putnam (2000) finds that schools are heavily influenced by social capital. It is thus crucial to examine at the national level how social capital may structure differences among schools. While some studies have examined the effect of

region (i.e. South, West) on school disorder and violence, no previous study has considered the structuring influence of social capital on national data.

A second methodological advance is the use of teachers' reports of student problem behaviors. As will be shown, teachers provide an extremely reliable source of the extent to which student problem behaviors exist in schools. There have been many criticisms of and shortcomings found in the use of student self-report data as discussed above. In addition, student discipline records (e.g. suspension, expulsion) often over-represent minority students as they are disproportionately represented in disciplinary actions or simply act to confirm existing patterns of disruption in particular students (Morrison and Skiba 2001). Administrators and principals reports of student misconduct and violent behavior such as those reported to police may also result in under estimation insofar as they may be reluctant to report such signs of organizational failure to outside authorities. To gauge the validity of teacher reports, a student misconduct scale and a student violence scale derived from teachers' responses are correlated with Putnam's (2000) social capital scale and the FBI's Uniform Crime Index (2003) at the state level. This triangulation of the study data with other measures provides a unique opportunity to measure the extent to which students' behavior is congruent with broader patterns in the society at large.

Third, this study uses Structural Equation Modeling (SEM), a form of multivariate analysis which has two distinct benefits over standard linear regression. The first benefit is that it allows for mediated effects of variables. Like path analysis, SEM can measure the indirect effects that independent variables have on a dependent variable through other independent variables. By using SEM, this research is able to examine the

influence that student demographics and neighborhood conditions have on student behavior while simultaneously controlling for their mediated influence through facets of school institutional qualities. While the effects of local social disorganization on school functioning "seems likely, it has received relatively little theoretical consideration in the neighborhood literature" (Ainsworth 2002: 121). Part of the utility in examining indirect effects is that it can also mitigate against spurious relationships between variables. For instance, it may be argued that the assumed negative relationship between teachers' authority to discipline and student misconduct and violence is primarily a function of the socioeconomic status of the school. Part or all of the variance in both teachers' authority to discipline and student behaviors may actually be explained by aggregate level of student social class. A second instance where the use of indirect effects to control for spuriousness is particularly useful stems from the assumption in this research that more misconduct in a school leads to more violent behavior. To control for any spurious relationship between these two variables, it is necessary to control for the independent effects that the organizational and demographic variables have on both on the student misconduct and violent behavior variables. This better isolates the direct effect of the student misconduct on student violent behavior. Interaction terms are typically used in linear regression to control for the interrelationships between independent variables, but these are often difficult to interpret, especially in the volume necessary for organizational level data where many variables are highly correlated.

A third benefit of SEM over standard linear regression is that it can model latent, or unobserved, variables with greater efficiency. Latent variables are comprised of two or more observed variables which are assumed to measure different dimensions of a

particular factor. In this instance, teachers' authority to discipline is assumed to be a latent factor which is made up of three observed indicators which measure different dimensions of rule enforcement and consensus in schools. In statistical research, it is assumed that there is a degree of error associated with the measurement of manifest variables. In linear regression, whether multilevel or not, one error term is supplied to represent the degree of error for all of the variables in the model including the manifest variables which make up factors or scales. If this research used linear regression, therefore, the error values for all manifest indicators of Teachers' Discipline Authority would be represented in the one error term. SEM, on the other hand, is able to account for the error associated not only with each of the manifest indicators of a factor, but also provides an error term for the factor as well. Thus, the estimates of variable relationships are argued to be more accurate than in linear regression.

Organization of the Research

Chapter Two presents a review of the theoretical literature and ethnographic studies on the organizational context of moral authority in schools as it relates to student behavior. This includes research on the demographic and organizational sources of student misconduct and violence. This chapter also examines research which suggests that communally organized schools reduce student behavioral problems controlling for student social-demographics. Chapter Three is an examination of empirical research on school disorder and crime. Of interest is attention to the limited but valuable sociological literature on the effectiveness of schools' security efforts on student problem behaviors. Chapter Four outlines the data and methods used to address the study hypotheses which emerge from the review of the existing theoretical and empirical literatures. Chapter Five

presents descriptive statistical analysis of school disorder and safety in national perspective using the SASS data. A particular focus of this chapter is ascertaining the degree to which school disorder and violence, school safety measures and school organization are related to wider social forces such as social capital and violent crime. Chapter Six presents an examination of the multivariate statistical analysis used to test the research hypotheses. The Seventh and final Chapter includes a discussion of the findings with attention to their policy implications for preventing student misconduct and violent behavior and presents the study limitations and suggestions for further research.

CHAPTER TWO
REVIEW OF THEORETICAL AND ETHNOGRAPHIC LITERATURE ON SCHOOL DISORDER AND VIOLENCE

How is actually possible for the adults working in schools to maintain order and discipline in classrooms, hallways and cafeterias? This question has been a central one for sociologists of education stretching back to Emile Durkheim as it addresses societal reproduction and control. Durkheim's book *Moral Education* (1961[1925]) provides a theoretical overview of the societal role – and source – of teachers' moral authority. His perspective on the role of punishment in the classroom is also particularly informative. Insofar as legal and social challenges to schools and teachers have reduced their authority and legitimacy to discipline, his viewpoint can reinvigorate discussions about the essential moral role that schools play in teaching young people pro-social behavior in the service of order and safety, but also effective instruction and learning.

To update Durkheim's perspective, attention will then be given to how the structure, processes and context of contemporary public education shape teachers' relationships to their students and how these limit the possibilities for socialization in schools. As touched on briefly in the introduction, the contemporary institutional and bureaucratic context appears to undermine, rather than strengthen, teachers' and schools' moral authority over their charges. The perspectives on the social organization of school provided by Waller (1932), Bidwell (2001) and Ingersoll (1996; 2001; 2003) are of central interest here.

Because demographic forces shape institutional functioning, perspectives on students' challenges to teachers' authority stimulated by class and racial differences will then be presented. Insofar as schools are focused on reproducing and rewarding

dominant social values and orientations, children who face social and material disadvantage and who do not find schools reflective of or sensitive to their cultural dispositions tend to do poorly in school and resist the process. This often means disrespect for the institution of schooling, and perhaps violent behavior towards other students and teachers as well. Hirschi's (1969) social control and bonding theory provides a criminological lens on how social difference acts to shape students' anti-school and anti-social behavior in schools. Illustration of Hirschi's theory is provided by three school ethnographies – those of Willis (1977), Metz (1978) and McFarland (2001). These ethnographies demonstrate how the student peer-group shapes students' attitudes and orientation to rebel against teachers and each other. Throughout this discussion, the role that a school's discipline climate plays in securing school order will be emphasized.

Following this synthesis of theoretical and ethnographic perspectives on the causes, contexts and challenges to moral authority in schools, a review of existing quantitative research on school discipline climate as it relates to student misconduct and violence will be presented. This involves an examination of research on school disorder and discipline climates from a criminological perspective conducted by Gottfredson and Gottfredson (1985) and Welsh et al. (1999; 2000). Following that, quantitative research on the effects of communally organized school environments on student behaviors is reviewed. Studies by Bryk and Driscoll (1988) and Battistich and Hom (1987) on communal school organization and its implications for discipline will be examined. In this review, the role that variables common to school effects research such as total school enrollment, student-teacher ratio and parental involvement have on student behavior will be highlighted. In that this research is also attempting to gauge the effectiveness of

school security and violence prevention efforts in schools, this chapter concludes with a survey of the small but growing literature on this topic.

Teachers' Moral Authority

Many historical accounts of how teachers have secured student discipline can be best described as draconian. Physical harm and threats of physical harm appear frequently in these accounts (Foucault 1995; Finkelstein 1989). Consider the following excerpt from an individual's recollection of his experience as a student in a New York City school in the 1820's.

> Having said all that space will permit of what, by courtesy, we will call the intellectual and religious parts of the system, we come to the governing part, or means employed to secure acquisition of these branches of Education, and to reform and purify the whole character of the student. This was nothing but *blows! Blows! Blows!* Moral suasion was a principle unknown to this institution in the Education of used. Terrible flogging was really believed to be an indispensable prerequisite for making a good boy out of what was esteemed a bad one, and a scholar out of a dunce. Indeed, it was regarded so potent a panacea, that it was thought wise to administer it as a preventative as well as a curative of moral obliquity or intellectual dullness. I have heard even parents, coming to inquire about the progress of their children, enjoin the master, in the presence of the whole school, to 'Flog them! Flog them!' In truth, the chief function of this pedagogue was to beat the boys; he was engaged in this employment the best part of his scholastic term (excerpted from Finkelstein 1989: 206) [emphasis in the original].[9]

This account of student discipline speaks volumes about how childish whims and behavior were misunderstood as evidence of the evil lurking within, an evil which necessitated such drastic measures of discipline. Certainly the threat of bodily harm that corporeal punishment promises is an effective, if ethically underdeveloped, way of securing compliance and inculcation of behavioral norms for the short term (i.e. for as

[9] This memoir was originally reported in an 1869 issue of *New York Teacher and American Educational Monthly*.

long as students are in their classrooms). Children were taught to fear authority and this prepared them to assume a certain type of role in society.

Due to changes in the social structure, corporeal punishment is regarded as an inappropriate method to achieve discipline in most western societies. In contrast to this authoritarian and punitive approach to discipline, modern society strives to encourage compliance to the norms and expectations of its social institutions through a more subtle socialization process – one that teaches individuals to envision their place in a highly differentiated and organic social order. Internalizing codes of ethics and norms for behavior, or at a minimum compliance with the rule of law, is essential for the reproduction of the social order in democratic societies. Teaching young people to internalize these values and norms, thus, creating self-regulating and autonomous citizens is one of the key challenges of child rearing and pedagogy. Punitive sanctions have been replaced by restitutive or procedural sanctions which reflect the contemporary mien of schools' purposes for liberal education, citizenship training and social mobility.

An early embodiment of the liberal attitude towards discipline in schooling, Durkheim in *Moral Education* (1961[1925]) emphasized discipline as a process by which teachers align students to the wider and highly differentiated societal order. Instead of placing the fear of God or the rod in children, Durkheim thought teachers' should encourage love of and attachment to the collective life of society. Thus, teachers were responsible for creating a normative moral order in their classrooms, not an order based on fear of punishment. It is crucial that students become attached to their peers, classes and school because it is this experience which prepares them to assume differentiated positions within the division of labor. In this sense, Durkheim saw the educational

system as crucial for bridging the gap between the affective life of the family and the technical and impersonal demands of the division of labor in which students would eventually take their places. The family alone is unable to secure this attachment because it is often too distant from community life, too small of a unit and directed by affective and emotional bonds – experiences which do not adequately prepare children for participation in wider societal life. Durkheim viewed schools as a core social institution in the process of inculcating pro-societal behavior and orientations, things which extend beyond the particularities of the family to the wider and universal goals of society. His position on the role of teachers and schooling reflect very clearly his functionalist, or consensus, orientation towards the reproduction of social structure.

The Moral Basis of Disciplining

If punishment should be avoided, what is the source of teachers' authority over their students? Durkheim saw that morality played a central role in teachers' authority in classrooms and schools because it is individuals' internalization of a social morality rather than superstitious belief or religious doctrine – that reproduces social order one individual at a time. Morality for Durkheim is not a religious doctrine or set of rules, but rather is a sense of the right and just which is conveyed by social convention and culture – in short, the *conscience collective*. Morality is the felt sense of the dominant social order which encourages "regularity of conduct," or self-discipline. He emphasizes the importance of ideals and moral unity in the continuity of society and the significance of the individual as an active agent as well as a passive recipient of social influences. From this view, there is a dual nature of the attachment of the individual to society as involving both obligation *and* positive commitment to societal ideals. It is not adequate enough

that individuals simply follow social convention. They need to *feel* that social convention is right and just. Because society is *sui generis*, or in a perpetual state of pre-existence, Durkheim privileges the power of existing social conventions over individual agency or self-determination. This makes Durkheim the ultimate herald of consensus sociology.

Durkheim's position on the role of morality provides a way to understand students' resistance to teachers and the schooling process. Rules and prescriptions for behavior such as those embodied in a system of law are the codification of a societal morality. Authority is the mechanism through which these rules are given their weight. Durkheim defines authority as:

> a quality with which a being, either actual or imaginary, is invested through his relationship with given individuals, and it is because of this alone that he (sic) is thought by the latter to be endowed with powers superior to those they find in themselves (88).

The moral value of a rule (or law) is expressed in the behavior of those who are responsible for conveying this social norm; those in positions of authority such as teachers, police officers and judges. Authority is, thus, the crucial ingredient in any superordinate-subordinate relationship. An important question follows: How does "such authority [come] to be vested in the teacher"? (158). Durkheim posits that societal morality – the binding agent of the collective conscience – is the ultimate source of teachers' authority in the difficult process of controlling and educating young people. The evocation of rules of behavior and conduct along with dispensation of punishment when these are broken is the way that Durkheim saw morality to be taught, especially in schools. Teachers are, therefore, crucial moral agents of society. In pre- and proto-modern societies, children were thought to be poorly formed adults, or worse, conduits for evil. Teachers used the deterrent effect of physical punishment to discipline their

charges. This practice had its legacy up until the end of the 20th century (cf. Arum 2004, Chapter 4). Contemporary schools and teachers do not use physical punishment due to widespread changes in the cultural, social and legal climate. Durkheim would agree with this shift in that teachers' need to rely on more reasoned and socially nuanced avenues for achieving student discipline as dictated by the particular dynamics of organic social solidarity.

Durkheim asks, "What conditions must the teacher fulfill in order to radiate authority?" He suggests that moral authority has two conditions. The first of these can be understood as the moral will of the teacher. In so far as morality is taught via the rituals of school discipline (e.g. arriving to class on time, completing homework, following instructions), teachers are the ones to give these rules their moral weight. For Durkheim, "[w]hat is above all important is that the teacher really feel in himself the authority he must communicate and for which he must convey some feeling (154)." Moral authority is, then, a felt experience which embodies in the teacher the sense of confidence to teach and to discipline. The authority is not simply given by dint of age or superior intelligence; it is a phenomenological manifestation of the teachers' consistent orientation to wider social values and processes. This will and consistent sense of moral purpose is crucial in teacher-pupil relationship because, "the child cannot have confidence in anyone whom he sees hesitating, shifting, going back on his decisions" (88). It should be no surprise, then, that consistency and fairness in punishment has been demonstrated to be correlated with improved student behavior controlling for other factors (Gottfredson and Gottfredson 1985; Arum et al. 2004). It is crucial that teachers receive the institutional and social support necessary to generate in them the sense of

moral authority, an authority which necessary for them to discharge the duties of discipline. Further, this discipline should be discharged consistently within the school building; otherwise, students are not presented with a consistent picture of what is expected of them and what the consequences will be if they go "over the line" with their behavior. As will be discussed shortly, the school organizational culture and structure is the crucial mediator between the individual teacher and the wider social order.

A second element of teachers' moral authority stems from the use of punishment to reinforce the moral climate of the classroom and purpose of education. According to Durkheim, the extent that an individual acts morally, he or she will behave with a regularity of conduct which is in keeping with the *conscience collective*. This regularity of conduct is considered by Durkheim to be at the heart of discipline, a factor "*sui generis*, of education" (43). As such, students' "obedience is not truly moral except when it is the external manifestation of an inner feeling of respect" (154). In an ideal situation, students learn to follow rules not out of fear of punishment, but out of respect for the morality of the rule. Durkheim indicates that that a system of discipline dispensed by teachers without their true felt sense of the right and just way of the conscience collective is bound to fail.

> [R]espect for discipline does not originate in the fear of sanctions curbing violations of the rule. Indeed, whoever has had any experience with school life knows very well that a well-disciplined class is one wherein there is little punishment. Punishment and unruliness generally go together (160).

Punishment is right and just not because it makes up for a transgression or in some way rehabilitates the transgressor. Punishment is right and just because it is the proper reaction by a society which is aware of its larger purpose and the need to create solidarity: "To punish is not to make others suffer in body or soul; it is to affirm, in the

face of an offense, the rule that the offense would deny" (176). The rule is the outgrowth of the self-preserving will and authority of a social order. Durkheim's perspective on the role of teachers as moral authorities is only informative if we take seriously their role as arbiters of the social order. To the extent that teachers have moral authority and utilize punishment correctly, students should learn the moral norms for behavior and obey discipline codes. They would obey discipline codes not because they fear punishment, but because they would naturally feel that proper conduct is right and just.

It is appropriate to consider Durkheim's theory of anomie here as a metaphor of what childrearing and teaching is meant to overcome. As unformed beings, children are in need of discipline and alignment to the social order which takes place first through the family and then in school. If the connections between the family, school and society are loose or are somehow uncoordinated, the child will experience a sense of anomie or disconnectedness. Insofar as children, especially of primary school age, lack a well-formed sense of morality, it cannot be said that any experience of anomie is an experience of normlessness. But, if a child's family life or school experiences are insufficient so as to promote a pedagogical program of discipline and alignment to the collective social life, the anomie they experience certainly hinders any development of a sense of social norms and discipline. This was Coleman and Hoffer's (1987) concern in their research on social capital and "intergenerational closure" between family and school communities. When schools are connected to the communities they serve, those responsible for their socialization are able to discipline in a manner consistent with local cultural and social customs. Youth feel more connection to the wider society in such

communities. They, then, do not suffer from anomie and are less likely to act out in resistance.

Durkheim's approach to the topic of morality as it applies to discipline in schools needs to be sufficiently contextualized if applied to research in contemporary U.S. public schools. Whether or not a teacher has access to true moral authority is dependent on many factors, personal, institutional and societal. In that the focus of this research is on sociological determinates of teachers' authority, individual sources of this resources such as personality traits, training or biography will not be addressed. The first sociological issue to be considered is the institutional context of teachers' moral authority. The second issue to be dealt with is the degree to which racial and cultural heterogeneity in many, if not most, school communities in the U.S. shapes the potentiality for discipline. The United States has varied groups, cultures and ethnicities who wrangle over the direction and form of public schools. In this sense, the history of public schooling in the U.S. is also the history of attempts to reform it.

The Organizational Context of Teachers' and Schools' Authority

It is necessary to contextualize Durkheim's theory regarding moral education to make it applicable to contemporary public education in the United States. Public schools first need to be considered as bureaucratic institutions. Schools clearly fit the definition of "complex organizations" (Perrow 1970), particularly those in large urban public school districts. They have rules, goals, a power structure, a compliance structure and a strategy of involvement for their members. These characteristics make up a school's particular day-to-day lived culture, climate or ethos which can be analyzed for on terms of its "inputs" (e.g. funding, personnel, student backgrounds) and "outputs" (e.g. achievement,

level of conflict). Schools are often referred to by organizational theorists as "organized anarchies" due to the odd mixture of the nature of the clientele, the centralized administrative control over materials, personnel and goals, and their cellular horizontal structure. The structural anarchy posed by the bureaucratic public school model is one way in which communal aspects of schooling and teachers' authority to discipline is weakened. As teachers are disconnected from interactions of the school at large, they are disconnected from the wider social environment. Further, public education is an extremely hierarchical process which must respond to many conflicting pressures. The legitimacy and authority of schools and teachers is constantly challenged by constituents internal and external to schools such as politicians, parent and community groups and the media. Thus, schools are not only disorderly organizations due to the *a priori* contentiousness between pupils and their teacher. They are also administratively and organizationally unbalanced.

One of the earliest treatments of the tension between schools' organizational goals and the child-world of students is Waller's *The Sociology of Teaching* (1932). Like Durkheim, Waller recognized the fundamental conflict between the child-world of the student and the adult-world of the teacher. Owning to a conflict perspective, however, he broadened his analysis to include organizational features and dynamics of schooling which add to this conflict. Conflict in schools arises from the collusion of the external demands placed on schools with their administrative, curricular and social functions. Because of this dynamic, Waller (1961 [1932]) viewed schools as "a despotism in a state of perilous equilibrium" (22). Bidwell's (2001) distillation of Waller's position is worth quoting at length:

> [the] organizational structure of schools is an adaptation to the core regularities of institutionally grounded and constrained teaching activities. Dry subject matter, removed from the immediate lives of children and young people, forces teachers to hold students to tasks for which they cannot be motivated effectively. Therefore, teaching is a never-ending effort to reconcile what cannot be truly reconciled – an effort to preserve standards while engaging students' interest and goodwill. Consequently, the relationship between teachers and students is essentially antagonistic, and the classroom order of domination inexorably emerges (102-103).

This highlights the frustrating conundrum that teachers face in their work: "in carrying out the main tasks of teaching – motivating students and maintaining order – the friendliness and warmth that promotes the first are incompatible with the demands of the second" (Willower 1989:12). Waller (1961 [1932]) acknowledges the interpersonal and emotional nature of teaching in a way that Durhkeim does not.

How do schools adapt to their "perilous equilibrium"? One strategy is the organization of the school population into horizontally related yet autonomous classrooms units. This cellular structure means that "[t]eachers are conveniently interchangeable in the administrative sense" giving schools "a ready-made system of damage control" (Kidder 1989: 52). In this divide and conquer scheme, the potential for trouble which could be created by hundreds of young people is parsed out into different cells, thereby effectively managing large groups of individuals who have largely not volunteered for the work they are assigned to do. But the benefits of schools' relatively "flat" organizational structure also reduce communication and opportunities for bonding. Metz (1985) points out that because of the centralized yet simultaneously compartmental nature of classrooms, a teacher "work out of the sight and hearing of other adults and needs to coordinate his efforts with those of other teachers only in minimal ways" (22). This means that teachers often do not have the time to develop collegial support networks

or share information about particular students, support and information which might aid them in bringing their students in line. Schools counteract the disconnectedness between these "cells" through the use of sports teams, mascots, pep rallies and various common experiences outside of the classroom. Students are able to interact with each other socially outside of the purview of their teachers, but this interaction falls outside of the discipline culture of the classroom and certainly does little to connect classroom environments. As will be highlighted later, recent research on staff collegiality and networks (Bidwell 1999; 2001) and school bonding (Bryk and Driscoll 1988; Battistich and Hom 1997) indicates a growing awareness of the isolation that teachers experience and the importance of the social and moral functions of schools. This research along with contemporary attempts to reduce school and class size addressed the fact that the traditional divide and conquer scheme of schools' cellular structure may not be effective strategies in managing and teaching young people. This may be particularly the case when moral authority and social capital are seen as on the wane in contemporary society.

Schools: Disorganized or Disempowered?

There are two perspectives on the effect that breaking up schools into autonomous classrooms cells has for teachers' control over their work, particularly as it applies to student discipline. The first suggests that this isolation allows teachers a great deal of autonomy within their classrooms despite a lack of control over curriculum, choice of materials and the students they teach. They can use the teaching methods they see fit and utilize class-bound sanctions for unruly behavior (e.g. threatening to call a student's parents, restricting opportunities for socializing such as the use of worksheets instead of groupwork). The decentralized nature of public schooling has been blamed by many as

the source of public schools' inability to educate American youth. Such critics claim that school organization as it stands is "disorganized" (Ingersoll 2003: 5). Ingersoll (2003) argues a second position – the "disempowerment" perspective. The bureaucratic nature of schools makes them too centralized and "it is simply not true that, behind the closed door, classrooms are small universes of control with the teachers in sole command and free to do as they please" (Ingersoll 2003: 234). While American public schools have typically fallen under the jurisdiction of school districts or local education agencies, recent events suggest that public education is going through a period of rapid centralization where more of what gets taught and how it's taught is determined at the federal level. A great deal of state and federal funding streams are now tied to accountability measures such as standardized test scores. But, large public schools, particularly in urban areas, have long adapted to their size and scale through bureaucratic control. This is perhaps most evident in how they have adapted to the problem of student discipline. Much of the control and responsibility over disciplining students has migrated upwards to the hands of school administrators – typically principals, vice principals and counselors. School administrators to whom unruly students are sent become, in a sense, "pressure specialists," (Lipsky 1980) whereby the "burden" of discipline is removed from the teacher and placed at the level of the school institution. The manifest function of this organizational adaptation is to remove the misbehaving student from the classroom and punish them elsewhere, thereby removing the potential disruption this might pose for instruction. The latent function that this has is to help preserve, to the extent possible, the affective nature of the relationship between the teacher and the student. By making the school administration responsible for disciplining students, teachers can avoid the residue

of student resentment and protracted grudge matches which may further compromise the classroom atmosphere. Ingersoll (2003) makes the argument that as a result of the bureaucraticization of discipline, "[t]eachers themselves are rarely allowed to make on-the-spot decision in their classroom in regard to student disruptions, and they rarely have the authority to punish students" (131).

Unfortunately, this method of distributing control of discipling upwards to school administrators and outwards to agents of criminal justice undermines teachers' local control over their classrooms and fractures the discipline climate of a school. First, Ingersoll (2003) argues that when school disciplinarians such as assistant principals or security officers fail to follow-through on disciplining disruptive students brought to their attention by a particular teacher, they are failing to "back-up" that teacher: "If students conclude that a particular teacher's threats will not be enforced, a spiraling increase in classroom disobedience will most likely follow, making life less pleasant or even intolerable for the teacher" (Ingersoll 2003: 132). Students, thus, see the school as not a unitary entity, but one whose rules they can bend and twist. Attempting to "get away with" it becomes a game for certain students. They learn which teachers are not looking and how to "play" them when they are caught. Second, Ingersoll (2003) finds that teachers often have "little say in or control over school wide rules and standards for student behavior" (144). Many teachers find enforcing rules that they have not themselves created is exhausting; they may not agree with the rules, nor it is possible for them to follow up on each infraction. There are simply too many students for them to deal with in a classroom and those students who are looking for ways of breaking the rules use this fact to their advantage. Attending to each infraction would make discipline

a full time job for teachers and very little learning would take place. Many teachers look the other way because they have to.

Ingersoll (2003) also argues that because teachers have to teach many students in a classroom and many students each day their behavior becomes "more impersonal, more formal – that is, more bureaucratic in the relationship to students" (151). This means that even for those teachers with a modicum of control over the material they use, the tendency is to use "the most readily available, prefabricated curriculum materials and textbooks" (152). Rote memorization and multiple-choice tests are preferred over student-centered activities for the sake of standardization, simplicity and ease of grading. This sort of teacher centered standardized pedagogical method may not alienate the more motivated students, but students from non-establishment backgrounds see such teaching as further proof that the school does not reflect or care about their interests. This sort of standardization that teachers adopt in large classes is a missed opportunity for attracting non-conventionally oriented students to schooling.

Other factors which support the disempowerment thesis over the disorganization thesis in teachers' work stem from the multiple contexts and constituents which shape teachers' behavior in their classrooms. They are constrained by the requirements of their profession such as continual in-service training and credentialing (many school districts, with the support of teachers' unions, now require a masters degree to become fully certified); administratively by district and school requirements such as standardized tests and graduation requirements; and by ongoing local challenges by parents, politicians and the media. This has led some "neo-institutionalists" (Hannan and Freeman 1989; Scott 1994; Bidwell 2001) to suggest that organizational communities or "fields" (i.e. teachers'

unions, school districts, state regulatory agencies) are more influential for shaping any one school's organizational dynamics than those of the local school environment such as neighborhood and school demographics (Arum 2000: 396). Whatever the dominant structuring influence, teachers face the daily conundrum of bridging two very different worlds – that of the often cold and standardized mandates of the bureaucratic strata above them and the lived social and emotional reality of their charges. These forces have profound implications for their ability to socialize and discipline their students.

Racial and Class Conflict as Sources of Disorder in Schools

A second challenge to schools' and teachers' moral authority absent from Durkheim's analysis arises from demographic, social and cultural factors which alter schools day-to-day functioning. On the one hand, the organizational structure and standardized nature of teaching tend to put teachers and students into conflict regardless of social, cultural or economic considerations. On the other, student race and class background poses particular challenges for teachers and schools in their assertion of their authority. Three ethnographic studies can be used to illustrate the significance of the conflict between teachers' (moral) authority and the difficulties of succeeding in the goal of sustaining order within the school institution which take race and class into account. In these studies, Hirschi's (1969) theory of the tension between conventional orientations and deviance can be seen in operation. Hirschi's (1969) social bonding or control theory is a micro-level interpretation of Shaw and McKay's (1942) social disorganization theory which has shaped a great deal of research on school disorder. In his theory of social control and bonding, Hirschi (1969) sought to explain how delinquency arises out of the failure of central socializing institutions such as families and schools to transmit

dominant value systems. He posited four elements of bonding at the individual level which are crucial for the transmission of established behavioral norms and values to take place. These are: an individual's commitment to conventional goals; perceived costs and risks of investing time, energy, and self in conventional behavior; involvement in conventional activities; and, belief in conventional rules. The activities that schools require of youth provide daily proving grounds in the development of a normative behavioral orientation. These activities include following instructions, participating amiably in group activities, and understanding the consequences of failing to participate in the goal and reward structure of schooling. These activities have the goal of teaching youth to become self-regulating citizens.

The social control/bonding process tends to break down in educating youth who come from economically deprived and/or racially isolated backgrounds. Seen from the consensus perspective, youth from poor and minority backgrounds are agued to lack sufficient cultural and academic capital, necessary resources for school success. In addition, the ability of local institutions such as families and communities to inculcate and reinforce pro-social values and conventional orientations are challenged by adaptive, yet deviant, opportunity structures and subcultures which arise out of disadvantage. Where social control is weaker, "peer-group culture likely plays a greater role in the activities of neighborhood youth" (Ainsworth 2002). In such networks, status is bestowed upon those who resist dominant orientations such as doing well in school. Therefore, there is a perceived cost in social status for these individuals when they investing time in the educational process. They risk losing the crucial self-esteem that their peer groups can convey. They may also find educational goals unobtainable,

unrealistic or unnecessary for their future life chances. Schools are, thus, important sites for youth who fall outside of the mainstream to develop oppositional and delinquent dispositions. As will be suggested later, however, schools also play a role in labeling youth as deviant, contributing to their resistance and early departure. Increased school security may also be another facet of this process.

The first illustration of Hirschi's theory which is sensitive to the organizational context of authority and discipline in schools is Metz's (1978) ethnographic study of two desegregated junior high schools, Canton and Hamilton. She attempts to uncover "the ways that staff members and students, and the schools as whole organizations, addressed the twin tasks of pursuing education and maintaining civility, safety, and order" (i). By examining two schools with similar demographic make-up but different organizational cultures, Metz is interested in identifying the role that organizational culture plays in shaping the discipline climate and level of discipline problems in a school. She exposes how the reciprocal relationship between student dispositions towards schooling (as either accepting or resisting) and teachers' personal teaching philosophy and disciplinary style (as either traditional or progressive) have profound implications for securing or undermining school wide order. She identifies how this culture shapes teachers' authority and is, thus, a crucial force in mitigating the conflict between students and schools set in motion by cultural and social differences.

Like Waller (1961[1932]), Metz (1978) recognizes that the institutional goals of schooling cause faculty and students of her study's schools to come into conflict independent of their particular history, student backgrounds and faculty culture. Echoing Waller, she claims that:

> the most difficult instrumental goal is the maintenance of order among a student body which is only half socialized, comes and remains by legal compulsion, and frequently includes persons with radically different educational and social expectations (17).

Maintenance of order becomes a preoccupying force for teachers and administrators as parents and local officials exert "unremitting pressures on the schools" (18). Metz suggests that a particular culture of discipline develops out of the interaction between a student body's collective disposition towards the discipline climate of their school and how teachers discipline them and their institutional authority to do so. One "classic" student disposition that Metz identifies in her research is exhibited by those students who are "intensely involved in the intrinsic character of their education, taking it for its own reward and thus caring about its nature" (xx). For Metz, these students accept the school rules as "natural, unremarkable" (152) and "it simply does not occur to them that one could do anything else but follow expected routines" (154). These are the students who for Hirschi (1969) have become attached or bonded to the social order and purpose of their school. They exhibit an attachment to middle-class values and behavioral expectations, values which are consistent between their home and school life.

Teachers who have a preponderance of kids from middle-class backgrounds, who share the school's "social style and its standards for obedient and decorous behavior," (Metz 1978:153) are said to develop a discipline approach which rests on the "institutionalization of innocence" (154). Here, teachers rely on students' "fear of shame and stigmatization" (154) engendered in punishment to hold them in line. Discipline in such schools is secured rather unproblematically. Students accept the directives of the teachers for fear of retribution and teachers rely on their acceptance as a byproduct of their institutionalized innocence. It can be also assumed that the intergenerational closure

between these students' parents and their teachers is strong. Such students fear disapproval and "getting into trouble" at school and worry that their parents will find out. Getting in trouble in school may lead to sanctions at home. In short, the moral code of schooling carries weight for such students and they fear reprisals from parents and teachers if they violate it.

The second group of students Metz (1978) identifies is comprised of those students who "become thoroughly alienated from a context which compels participation but offers neither extrinsic nor intrinsic rewards which are of value to them" (31). These students have "neither the trust nor the innocent ignorance" (154) required for the approach towards discipline that institutionalized innocence rests on. For Hirschi, these would be the students who would rather follow the norms and rules proscribed by anti-school peer-group cliques and networks. They are more interested in gaining status among their peers in terms of breaking school rules than getting good grades and gaining the positive attention of their teachers and their parents. In schools where there is a preponderance of students with an anti-school disposition, Metz claims that discipline is secured through a "myth of coercive control" (156). Here, the use of swift and consistent punishment for infractions creates "a state of mind in most of the children in which they believe the cost of disobedience to be too high to be worth paying" (156). She terms this a "myth" of coercive control because if every student were to simultaneously act out, "the coercive resources of the school will break under the load" (156). In schools where there are an abundance of youths who do not ascribe to the "student" role and view punishment as the risk they take to gain status among their peers, the myth of coercive is constantly challenged. Metz's description of this form of control references Durkheim's

(1965[1925]) position on punishment. Its not that acts should be punished because they break a rule, but that "it is to affirm, in the face of an offense, the rule that the offense would deny" (176). But, this means that in schools which rest on the myth of coercive control, "constant regimentation and constant vigilance by the staff are necessary" (157). The potential rebellion posed by the members of this second ideal type of students means that "[r]ules and their enforcement, therefore, becomes a centralizing principal in schools day-to-day functioning" (157). This has the effect of not only deepening the cleavage between a resistant student body and school administration, but also places the goals of discipline ahead of the goals of education. Learning suffers due to the preoccupation with order. In Hamilton, the preoccupation with order in the hallways "had been bought at the cost of considerable disorder and hostility in the classroom" (157).

It is important to point out here that students may be more attuned to the discipline climate than the academic climate of their school. It is the discipline climate which regulates when and how they can socialize and what behaviors are tolerated. For most youth, socializing is the most immediate goal while they are at school. Schools are remiss if they do not offer ample opportunity for students to interact and create the social worlds which help them to define themselves. The academic climate's emphasis on graduating and "getting a good job" or "going to college" is too distant for individuals who are still learning the rewards of delayed gratification. This is the case less so for those students whose parents stress education and doing well in school. Those students who do not become bonded to the process of schooling – whether due to familial, cultural, racial, personal or educational reasons – become "internal dropouts" (Toby 1995). It's these students who are constantly in search of freedom to interact with their

peers and, thus, make school entertainment which comes at a serious cost to those students intent on learning.

Metz (1978) identifies a significant problem in the securing of a consistent discipline climate in schools: teachers' style of discipline in their classroom often differs from the approach towards discipline school-wide. This lack of consistency stimulates disorder among the student body at Hamilton, and stimulates conflict between teaching faculty as well. Metz identifies incorporative teachers as those who rely on "proto-authority" in their classrooms. These are the sorts of teachers who maintain strict control over the discipline of their students for the purpose of securing an atmosphere conducive to teacher-centered pedagogy. They believe that coercive discipline should be the method of the school at large (163). Some incorporative teachers at Hamilton are quick to send students out of their classroom for discipline actions by the administration insofar as they view their responsibility as primarily academic, not social. These might be considered the teachers adhering to the "old paradigm" as described by Willis (1977) below.

Teachers who had a more progressive or developmental approach "considered coercion repressive and institutionalized innocence stultifying" (Metz 1978:163). Such teachers "were inventing and experimenting with methods in an effort to get cooperation from the resistant students" (177). They attempted to stimulate bonding not through oppressive and coercive sanctions, but through actively engaging students' capacities for reasoning. In Hamilton, those teachers with a traditional incorporative style began to express anger towards their "developmentally oriented" counterparts, "whose non-enforcement of some school rules, departures from ordinary curricular style, and

encouragement of students' self-assertion were, they argued, largely the cause of their students' resistance to their own teaching" style (176-77). Evidence of these factions based on teaching style and approach to discipline was made evident by the fact that members rarely interacted and sat in different territories in the faculty lounge and cafeteria (178).

Metz (1978) suggests that this faculty conflict over pedagogy and discipline at Hamilton had profound effects on student order. Because the faculty was deeply divided on these issues, students lacked exposure to a consistent and unitary school culture. A teacher's approach to discipline and teaching style, then, seemed to students a matter of personal choice and not that of a unitary school culture. Students were free to "influence a given teacher's pattern or to try to locate himself in the classroom of a teacher whose pattern he preferred" (183). This lack of school wide consistency also made it possible for students "to disobey without fearing universal stigmatization and ... perhaps even without punishment" (184).

The disposition of students for or against the particular culture of their school, or school in general, is not the only thing that determines order in schools. Metz (1978) implicates the discipline climate of the school at large as important. Canton, a school with a similar demographic make up but a more consistently enforced discipline climate, was very orderly in contrast to Hamilton. This demonstrates that that consistency among teaching styles and consistency in discipline is key for maintaining order in schools.

A further example of how peer group culture can provide a systematic degrading teachers' authority is readily seen in Willis' (1977) ethnographic study of twelve "non-

academic working class lads" from Hammertown, England.[10] Willis details how the working class background and destination of these boys largely determine their rebellious and self-sabotaging responses to school culture (4). In a process he terms *differentiation*, the "lads" relentlessly rebel against the academic culture of the school in a creative and coordinated process of counter-culture identity management. It is not so much that their lower class position determines their rebelliousness; they actively rebel because they know that their performance in school is not pertinent to their future jobs in the factories in the town in which they live. In a coordinated group effort, they wreak havoc on their teachers' ability to instruct and manage their classes. Willis sees the clash between the disenfranchised experience of their working class backgrounds and middle class academic school culture as the cause of their teachers' inability to control them: "the axis of moral authority underlying [the school's] certainties and its style is quite different from the profane confusions, compromises and underlying spirit of resistance in working class culture" (74).

Willis (1977) suggests that the teachers' responses to the lads' rebelliousness acts to imbue the institutional form and processes of the school with a dynamic of class conflict. Teachers react to their students' disrespect and disruptive behavior by embarrassing the disruptive students in such a way that the status of academic knowledge is pitted against their rebellion. In their strategies the teachers are attempting to preserve the moral authority and higher purpose of their work. But, this has the unintended effect of imbuing every instance of the institutional format of school with the quality of class warfare:

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[10] A pseudonym

> The teacher's frustration and attempts to re-orientate himself to the changed relationship and the changed notion of 'knowledge' at stake between him and his pupils, though taking place within the institution, are taken by 'the lads' as insults, not to their institutional identity, but to that whole class identity which they have turned to and reworked (77).

In this institutional dynamic, the ability of teachers to maintain student discipline by evoking the "old paradigm" of respect for knowledge and those who have it breaks down. The only people who have any success drawing on the moral authority of this old paradigm are senior staff and the headmasters who derive some degree of moral authority by the fact they are removed from the daily life of the classroom. Junior staff who attempt to evoke moral authority through the old paradigm tend to fail miserably. In Hammertown Boys, the old paradigm has lost its moral authority by virtue of the class conflict. Teachers' attempt to discipline the lads based on the old paradigm – the legitimate purpose of education – fails. The lads' turn their working class background into an oppositional counter culture, a process which involves their families and their communities as much as it does the school. The teachers find themselves at a loss to deal with the opposition and, in the end, attempt to minimize as best as possible the damage by the lads on the legitimacy of the schooling process.

Willis' study provides key insights into how cultural and class conflicts are played out within schools. His research suggests that schools which serve students who are predisposed to oppositional dispositions, whether due to racial, economic or cultural factors, must struggle mightily to prevent the institutional formats of the school from being imbued with an *a priori* sense of conflict. Students who come from minority and poor backgrounds in the U.S. also undergo the process of differentiation, although the process may reflect more of a differentiation along race than of class. One further

extension of Willis' approach is that youth culture is now a dominant force in the U.S. Youth are now exposed to fodder for oppositional orientations in the media regardless of background or geographic location. Where once only movies provided sources of oppositional identity in town and rural areas, cable and satellite television now broadcast a stead diet of counterculture twenty-four hours a day. While the old paradigm may still be dominant in public education, youth now from all backgrounds have access to oppositional identity.

"Minimizing the damage" or "just getting through a day" are themes common to many teachers' day-to-day experiences. In his research, McFarland (2001) focuses on the interaction between student social networks and teachers' instructional practices within the classroom context as predictors of student resistance. Contrary to the position of conflict or resistance theorists of student resistance, he finds that classroom management strategies and peer networks contribute more to students' misconduct than student demographic backgrounds. Whatever students' class backgrounds, peer group networks tend to form in opposition to teacher and school culture due to the alienating experience of schooling.

McFarland (2001) found that students made the choice to resist their teachers when it paid for them to do so, meaning when it took the focus away from the educational process and placed it on the social process of the classroom. In classrooms with a predominance of student-centered task structures, resistance tended to originate from friendship networks. In classrooms where teachers pursued teacher-centered formats, resistance was likely to originate from individuals who had school-wide popularity. Academically successful students tended not to pose problems for teachers whichever the

instructional format. But, he found that established practices of discipline and teacher moral authority break down over time: "[s]tudents grow familiar and comfortable with their teachers and become less afraid of severe sanctions. They know what actions will go too far, but they nonetheless constantly try to expand the boundaries of appropriate behavior and often successfully do so" (653). This is what Devine has referred to as "the Marshmallow effect" (1996: 109). Resistance in the form of talking out and general misbehavior can slow down the educational process, take power away from teachers and increase the misbehaver's social standing within school. As a result, teachers modify students' level of participation in classroom activities through changes in the task structure. This is done in such a way as to maximize their control over their students and reduce students' opportunities for resistance. "Hence, shifts in instructional formats will alter the basis from which resistant behaviors arise" (661).

McFarland (2001) suggests that teachers can modify the educational process in two ways to control students' access to discourse, or "the floor." The first is the degree to which class assignments are relevant to young people's everyday lives. Because topics not relevant to students' lives have the tendency to redirect "student attention to social affairs" (618), he suggests making content more relevant to the everyday lives of students. Many progressive school reform efforts have acknowledged the alienating effect of dry course material in their attempts to create student-centered curricula or vocational programs. The freedom that teachers may have had in creating student-centered curricula, particularly at the junior and senior high school levels, has eroded in the past two decades. With increasing emphasis on "back to basics" and standardized testing in the U.S., teachers are under increasing pressures to teach to specific

"proficiencies" and tests. While a good idea, in reality, teachers have less and less control over the content of courses. McFarland does not acknowledge these wider institutional and professional constraints; nor is he explicit in how teachers can make course topics relevant to students' lives to curb their resistance.

The second way McFarland (2001) suggests modifying the pedagogical process so that teachers maintain control is in the type of task structure they utilize. On the one hand, teacher-centered approaches, or "closed" tasks, characterized by typical "chalk and talk" lectures, individual work and exams makes teachers the clear source of instruction and class organization. In such a typical approach, teachers may learn to teach "defensively" altering the content and method of instruction as to limit students' ability to engage critically or creatively with the material. This is done in attempts to limit opportunities for resistance. On the other hand, "[s]tudent-centered (or open) tasks, such as group work, discussion, and student presentations," while more interesting and engaging for students, "give students greater access to public discourse and one another" (618). This has the effect of fostering "network building among students in such a way that can undermine teachers control and authority over the classroom process" (618). McFarland suggests that teachers become adept at manipulating networks through "relational treatments" (667). When groupwork and student-centered activities are used, teachers should be careful to break up cliques or those networks which have formed in opposition to their authority. By breaking up the power dynamic resident in student cliques and networks, this should have the effect of making students focus on the collaborative completion of the task at hand.

Like Willis (1977) and Coleman (1961), McFarland's (2001) work suggests that student resistance has much to do with the social capital embedded in peer networks. His research tempers critical or resistance theories of student resistance which emphasize race, class and the hidden curriculum as primary determinates of student resistance among poor and minority students. McFarland finds that cultural and social clashes are still characteristic of educating disadvantaged populations, but pedagogical approaches such as choice of task structure and whether or not a teacher is "backed-up" by the administration in matters of discipline "are at least comparable to total effects of student background characteristics" (664). His research can be faulted for its small sample size (four schools), lack of consideration for neighborhood effects, or any discussion about how school demographics may affect such things as the size of the school or the student-teacher ratio. His research, however, adds an important piece to understanding how power and teachers' moral authority is systematically broken down through the social influence of student peer networks.

Now that a qualitative understanding of the organizational context of school's authority structure as it is shaped by students' backgrounds and peer-group networks has been presented, this research turns towards quantitative research which has been conducted on the sources of disorder in public schools. This includes research from a criminological perspective which highlights the relationship of school demographics and neighborhoods to school disorder. While such studies acknowledge the "pervasive and significant" effects of poverty, these studies leave room for the possibility that these effects may be "mediated by the organizational structure and culture of the school and can potentially be managed in different ways" (Welsch, et al 2000: 273). Then,

quantitative research on one of these elements, communal school organization, as it relates to a reduction in student problem behaviors will be presented. This research finds that when schools have higher levels of value consistency, a common agenda of activities and an ethic of caring, student behavior and achievement is better. The functioning of communally organized schools is crucial to understanding how this contributes to teachers' authority to discipline. The following chapter concludes with a review of quantitative findings regarding the effectiveness of school security efforts and violence prevention programs.

CHAPTER THREE
REVIEW OF EMPIRICAL RESEARCH

Criminological Perspectives on School Disorder

One element that criminological studies of school disorder have concentrated on is the effect that the social demographic nature of schools' neighborhoods has on student behavior. The inclusion of a measure of neighborhood or "area" effect in studies of school disorder has both theoretical and statistically utility. First, a measure of "neighborhood disadvantage," or its inverse, "neighborhood affluence," is a variable exogenous to the school environment that may explain the influence of neighborhood and community forces on individuals' behavior. As a variable exogenous to the school environment, it focuses less on the reference category of individuals who might be the source of violent behavior and disorder in schools (e.g. male, minority, poor, from a broken home) and more on the root sociological causes of their behavior. While urban neighborhoods suffering from economic and social disadvantage tend to have high concentrations of minority residents, it is not the characteristics of the individuals *qua* individuals that cause them to live in such areas. Measures of disadvantage in schools' neighborhoods do typically correlate highly with the percentage of minority students in those schools; including it as a factor of school performance allows for the possibility that social disadvantage and not individual traits shape individual behavior.

Second, conditions in the local environment of a school may shape the social conditions of schools in such a way as to alter student behavior. Returning again to the discussion of social capital, it is likely that worsening conditions in a school's neighborhood will also lower parental and community involvement. This disconnection

or loss of intergenerational closure between schools and the communities they serve might have detrimental effects on various elements of the social environment such as a cohesive discipline climate, net of student demographics. Reversing a point made earlier regarding the effectiveness of intergenerational closure, teachers and administrators in schools "disconnected" from the local community may discipline in a way which is not consistent with local cultural and social customs. They are, therefore, more likely to encourage further resistance on the part of their students who feel alienated by their school's culture.

A third way in which neighborhood disadvantage may also harm schools' functioning is through the political and social-ecological effects of resource inequality. Research consistently finds that poor and minority students attend schools with high concentrations of other poor and minority students (a persistent form of de facto segregation based on residential patterns) and which lack adequate resources (Kozol 1992; Burtless 1996; Wenglinsky 1997; Condron and Roscigno 2003), well-qualified teaching staff (Darling-Hammond and Post 2000), and the types of community support that matter to school functioning (Coleman and Hoffer 1987). The most notable of these effects is the fact that well-qualified teachers and administrators typically do not want to work in schools that serve poor and minority students, most often located in disadvantaged areas. Teachers seek to work in schools which pay more and have better students. As a result, "[i]n almost every field, schools with the largest numbers of low-income and minority students are much more likely than other schools to report that they have difficulty filling vacancies" (Darling-Hammond and Post 2000:136). Part of the difficulty in attracting and keeping well-qualified teachers results from the salary

differential. During the 1993-94 school year, the top salary in schools where 10% or fewer of the students qualified for free or reduced priced lunch was $49,100. In schools where 40% or more of the students qualified, the top salary was $36,100 (141). Thus, where a school is located may have more of an influence on teacher quality than the actual population in the school. There are, thus, several ways neighborhoods could affect school functioning and student behavior.

The first nationally representative data on victimization in schools containing both contextual (e.g. community, school) and individual (e.g. demographic, social) correlates is the *Safe School Study* (NIE 1978). Sponsored by the National Institute of Education in attempts to gauge the severity of disorder in U.S. public schools, this multistage random sample obtained data from principals, teachers and students in 642 schools nationally.[11] This included surveys from 23,895 teachers and 31,373 students. Gottfredson and Gottfredson's (1985) reanalysis of the Safe School Study data identifies certain organizational characteristics which predict self-reported student and teacher victimization controlling for contextual variables. It is important to note that their unit of analysis was the school, not individual students. Thus, they aggregated all the relevant data to the school level.

One control variable used in this study was a measure of community characteristics provided by U.S. census data of varying geographical areas surrounding the schools.[12] The social ecology perspective on crime as put forth by Shaw and McKay

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[11] While intended to be nationally representative, extensive item non-response makes this assumption problematic. Because of this, the data weights computed to control for survey design effects to produce an accurate national sample could have introduced unknown biases (Gottfredson and Gottfredson 1985: 22).

[12] One shortcoming of the aggregated census data used to indicate the social conditions surrounding the schools in the sample is that the geographical units are of varying sizes. Only 101 schools had data for the immediate census tract. The remainder was for "minor civil divisions" (N=151) and "census places"

(1931) encouraged them to examine the influence that local community demographics had on victimization in the study sample. The variable Poverty and Disorganization was a factor composite comprised of rates of female-headed households, households affected by divorce or separation, percentage of those unemployed and those receiving welfare. A second set of controls measured the demographics of the student population. This included schools' racial composition and percentage of students who were from families receiving welfare (78).

As they sought to identify the organizational characteristics associated with increased student and teacher victimization, their principle independent variables of interest included several measures of school staffing and organizational qualities, and students, teachers and principals' perceptions of their school's social environment. School organizational variables included student-teacher ratio, aggregate teacher experience and education levels, school resources available, and average number of students taught per day. School social environment was measured through several factor composites, some of which identified varying dimensions of schools' discipline climate. One of these was principals' attitudes on how disruption should be handled – whether through a Social Approach or an Enforcement Approach. Teacher attitudes towards how disruption should be handled were assessed through three factors – Teacher Authority, Democratic Approach, or Punitive Approach. They also created a set of four factors measuring combined teacher and principal reports about how discipline problems were handled. These factors were termed Isolation or Referral, Principal Intervention, Clear

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(N=386). While the authors claim that the poverty and social disorganization factor structures across these varying units were "largely similar" (Gottfredson and Gottfredson 1985: 70), this is hardly a uniform application of ecological data. As will be addressed in the methods section, 91% of the schools in the final sample in this research come from the census tracts in which the sample schools are located, while the remaining 9% use aggregated data at the zip code level.

Sanctions and Ambiguous Sanctions. Factor analysis of student reports about rule enforcement and discipline produced three factors – Perceived Fairness and Clarity, Student Influence, and Firm and Clear Rule Enforcement. Finally, they were able to produce a number of student-level factors related to dimensions of Hirschi's (1969) theory of delinquency. These included but were not limited to Attachment to School, Peer and Nonacademic Ties, Participation in Delinquent Youth Culture and Belief in Conventional Social Rules.

Despite the ambitiousness of the Safe School Study (NIE 1978) data, collinearity hampered the Gottfredson's (1985) analysis using linear regression for their two dependent variables – teacher victimization and student victimization. Much of their analysis involved bivariate correlations and under-specified linear regression equations which did not adequately control for spuriousness between the predictor and outcome variables. For instance, the addition of the neighborhood characteristics in a linear model decreased substantially the predictive power of the school organization variables. This may be "due in large part to the redundancy of school variables with variables which measure the characteristics of the communities where the schools are located" (125). Setting aside the issue of whether or not the Safe School Survey (NIE 1978) data was problematic, this redundancy effect has two interpretations. On the one hand, it may suggest that neighborhoods are more important than schools in determining the level of victimization in schools. On the other, it leaves open the possibility that the effect of neighborhood disorganization on victimization is partially explained by its effects on school organizational variables.

To explore this second possibility, the Gottfredson's (1985) computed a path model which was able to measure the direct effects of neighborhood conditions (e.g. poverty and crime) and student demographics on teacher and student victimization as well as their indirect effect vis-à-vis school organizational variables such as educational climate, student-teacher ratio and total enrollment. Their model is reproduced below in Figure 3.1. When the effect of neighborhood conditions and student demographics on school characteristics is controlled for, they find increases in the following school-level variables result in increases in reports of teachers being victimized in junior high schools: ambiguous or punitive sanctions for misconduct; teachers' belief in student and parent involvement in school governance; and total number of students in the school. Firm and clear enforcement of rules also netted a very small (-.09) but statistically significant decrease in teacher victimization. They found that when parents and students had more say in how schools were run controlling for other factors, students reported more victimization. This does not bode well for proponents of democratic education. Student demographic considerations such as race and poverty contributed to a .26 unit direct increase in teacher victimization with an indirect contribution of .19 units. Community crime resulted in a weak (.17), but significant increase in teacher victimization.

For senior high school teachers, ambiguous or punitive sanctions for misconduct were also found to be a significant predictor. They also found that increased teacher-administration cooperation and increased (aggregate) student attachment to conventional social rules resulted in a slight decrease in teacher victimization. Student demographics contributed to a .26 unit direct increase in teacher victimization with and indirect contribution of .19 units. (In the senior high school model, they do not consider student

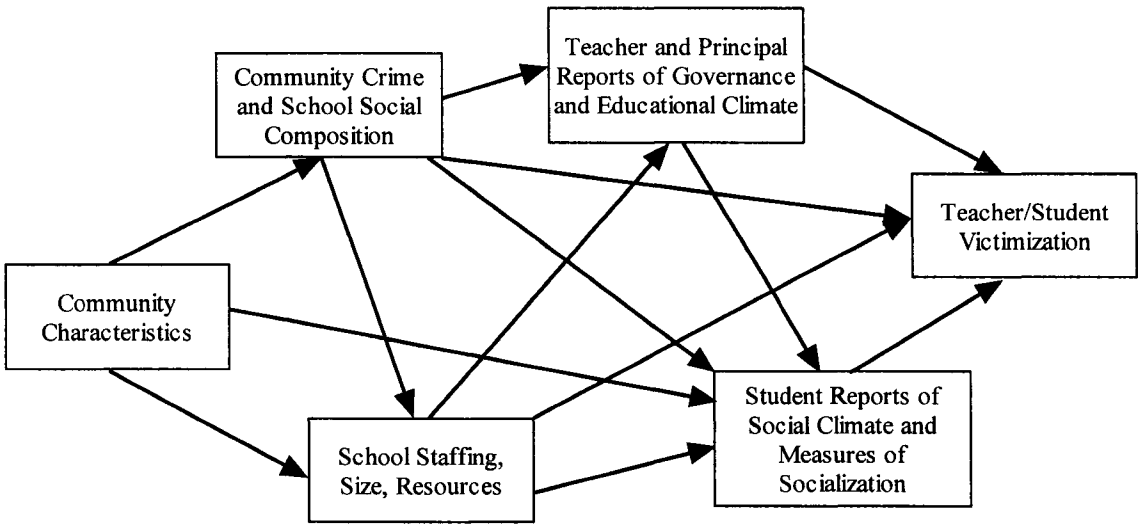
body minority percentage, only measures of "poverty and disorganization" [128]. This is an odd omission considering the established relevance of this variable.) Poverty and community disorganization of the local school community had only a weak indirect relationship to teacher victimization (.16 units). And, the number of students taught, but not total school enrollment, was a significant predictor of increased victimization.

There were not as many significant findings from the path model predicting the level of student victimization in junior and senior high schools. In the case of student victimization in junior high schools, an increase in the following results in an increase in student reported victimization: teachers' belief in student and parent involvement in school governance; teachers' confusion regarding how school rules and policies are determined. Thus, in schools were students had more say in school governance, there was more student victimization, but there was less when rules were perceived as fair and clear. For senior high school students, an increase in the perception by students that rules were fair and clear and in the level of community crime were the only factors that were statistically significant. Thus, the Gottfredson's (1985) find that the relationship between social disorganization and teacher and student experiences with victimization is mediated by the social and organizational conditions of junior and senior high schools.

The Gottfredson's, as well as others (Barton et al. 1998; Laub and Lauritsen 1999), however, have pointed out that the limitations of the Safe School Survey (NIE 1978) data call their results into question. First, the questionnaires did not distinguish between victimization as perpetrated by intruders or by members of the school setting. Some of the victimization may have come directly from the community, and not students,

which weakens their conclusion that negative community conditions are positively correlated with teacher victimization rates. This is partially suggested by the fact that community characteristics were strongly correlated to teacher victimization, but not to student victimization.[14] Second, there is debate on whether self-reports on the Safe School Study (NIE 1978) questionnaires were adequate. On the one hand, self-report measures of experience with violence have been shown to over-estimate violence at the

Figure 3.1: "A Path Model to Structure the Application of Statistical Controls" (after Gottfredson and Gottfredson 1985)[13]



environmental level and under-estimate personal experiences with violence. On the other hand, these types of measures have also been accepted by the wider educational research community as having consistent reliability and validity. As will be discussed in the next chapter, teacher reports regarding student behavior may have substantial benefits over student self-reports of deviance and have not been fully explored in research. Lastly, and

[13] Gottfredson and Gottfredson et al. 1985, page 123.

[14] The authors note that this implies that students in high minority and high poverty schools victimize teachers but not each other. While this is a plausible scenario for some schools (as may be the case in schools where the teachers are from different backgrounds as the students), it is highly unlikely for a majority of schools.

not reported elsewhere, the Safe School Survey (NIE 1978) used 1970 census data which was associated with teacher, student and principal data collected in 1978. This temporal difference in the data may have weakened the relationship between community characteristics and victimization.

Regardless of the limitations that the Safe School Survey posed for the Gottfredson's analyses, their book *Victimization in Schools* (1985) set the benchmark for this topic which influenced the approach of successive decades of research. Their attention to the mediated effects of social disorganization on victimization as well as to the identification of latent constructs of school organization advanced the sophistication of school disorder research considerably. As will be detailed in the next chapter on the statistical methods used in this current study, a statistical procedure which can better model indirect effects is more appropriate than linear regression in organizational-level phenomena and processes.

Not all students live within the area around the school leading some researchers to differentiate between local or imported neighborhood effects on school disorder. Because district zoning, busing and school choice typically reduce community effects on public schools, contemporary schools "are rarely a microcosm of the communities in which they are located" (Reiss 1995: 307). While the percentage of minority and poor students in a school is typically highly correlated with the level of disadvantage in the neighborhood surrounding the school, this does not mean that the students attending one school come from that particular surrounding neighborhood area. However, even if the students in a particular school do not live in the area surrounding their school, a school's local environment may potentially have effects. They still have to travel to and from

their school's neighborhood, thus potentially putting them into contact with local elements that might contribute to their delinquency.

Using a three level Hierarchical Linear Model of students nested within schools and communities, Welsch et al. (1999) examined the relative impact that neighborhood conditions (e.g. crime rate, residential stability and poverty) had on student misconduct in a sample of junior high schools in Philadelphia. Their dependent variable, Student Misconduct, consisted of four student self-report questions asking whether the student had or had not experienced the following: "sent out of class for punishment, had to stay after school as a punishment, was suspended from school or had to fight to protect him/herself" (85-6). In attempt to gauge the relative difference in imported vs. local area effects on student misconduct, they examined two models of community effects as predictors of student misconduct. The first model considered the conditions of the neighborhood surrounding the school. The second accounted for the conditions of the neighborhoods in which students resided. They find that the "[l]ocal community model fit the data significantly better than the imported community model" (104) suggesting that a school's local area was a better predictor of student unruliness than the neighborhoods from which the students came. Their results also "demonstrated the primacy of individual-level variables as predictors of student misconduct" (99). Sixteen percent of the explained variance of student misconduct was predicted by student level characteristics such as age, race and gender and Hirschi's (1969) tripartite of belief in conventional rules, orientations and associations. Differences in schools in their sample accounted for only 6% of the variance, and neighborhood characteristics, either local or imported, accounted for an additional 5%.

In a later analysis using the same data aggregated to the school level and path modeling, Welsch et al. (2000) examine the relative indirect effect of imported or local community characteristics on school disorder as mediated by school stability and school size. School stability was measured as a factor of two variables: average daily attendance rate and dropouts. While they find in this instance that imported community characteristics (i.e. from the students' neighborhood) have stronger indirect effects on school disorder, the model for local community characteristics still fit the data better. They find that a one-unit increase in imported community poverty resulted in a .69 unit increase in school disorder, while a one-unit increase in the local community model resulted in only a .26 unit increase. In the local model, school size is found to have only an indirect effect on school disorder, one that is substantially weaker than that of local poverty (.28 vs. .47). In their work, Welsch et al. (1999; 2000) find that local neighborhood conditions appear to matter more for the level of school disorder and that a majority of the relationship between local conditions and school disorder is mediated by school stability as measured by student absenteeism and turnover. Despite their claim that "communities in the sample showed substantial variation in crime rates" (106), their work has been faulted for using data from Philadelphia which is a relatively homogeneous urban school district in terms of class and race (Hoffman and Johnson 1999). In addition, they only used a sample of 11 schools. This is an inappropriate sample size for generalizing to a larger population.

The work by the Gottfredson's (1985) and Welsch et al. (1999; 2000) offer insights into the mediated nature of the effects of community characteristics on school disorder. The ecological effects of a schools' neighborhood has substantial effects on

elements of school organization such as stability (e.g. teacher and student turnover) and educational climate. It is likely, then, that local school conditions may also have effects on other aspects of school organization not accounted for in their research. To expand on this possibility, this research examines not only the direct effects of the level of a school's neighborhood disadvantage on student misconduct and violent behavior, but also its indirect effect vis-à-vis student-teacher ratio, teachers' discipline authority, parental involvement and school security measures. Parental involvement in schools is theorized here to be lower for schools located in disorganized neighborhoods, but not necessarily because poor and working class parents care less about how their children do in school as is often assumed. Beyond the decrease in personal energies and resources (i.e. access to private transportation) that poor and working class parents must overcome to be involved in their child's school, they also often lack a sense of entitlement in dealing with formal institutions like schools (Lareau 2003). When schools are located in neighborhoods where parents may fear violence and crime – regardless of the safety of their own neighborhoods – this could also reduce their involvement.

Communal School Organization

Like other hierarchical organizations such as hospitals and corporations, social interaction is the medium through which schools' goals are accomplished. As detailed in the introduction, research on the effect of social and moral cohesiveness and school social climate has found that schools which are more communal and have clear and consistently enforced discipline policies have reduced incidences of student problem behaviors (Coleman and Hoffer 1987; Bryk and Driscoll 1988). Order is necessary for the goals of the organization to be carried out effectively. An effective school is an orderly school,

one which has "respected leadership, good administrative coordination, and acceptance of teachers' authority by students" (Useem and Goldstone 2002: 622).

When teachers' authority is suspect among students, they can have difficulty controlling students' minor transgressions which get in the way of learning. When teachers are not given adequate input and support with discipline and when discipline is not fair and consistently enforced throughout the school, students find (or actively seek) the chinks in the armor of their school's discipline front. "[W]hen teachers share responsibility for maintaining school-wide discipline, students learn to expect similar standards from the entire staff" (Bryk and Driscoll 1988: 6). When teachers are not on the same page in terms of behavioral expectations and appropriate sanctions, this can breed a discipline environment where more serious acts of misconduct can occur (i.e. the "broken window" effect). This may be the case particularly in schools where students suffer from the disruption that disadvantage poses for their daily lives. Such students may be ill prepared for schoolwork or have little support at home for academics. They struggle to do well in the face of this adversity and may resist teachers and the academic process. Teachers with a preponderance of such students can become simply overwhelmed with the amount of resistance. They "triage" their classrooms, maintaining as close to a semblance of order as possible and when things get really out of hand, they send unruly students to the administration for disciplinary action. In such classrooms and schools, minor acts of defiance or horseplay are not considered big problems. Serious forms of student misconduct may not simply arise out of cultural clashes or criminal orientations learned in communities; they may also have to do with the organizational 'habitus' (Diamond et al. 2004) of teachers' work. In describing a failed school in

Chicago Illinois, one former teacher reported that "[i]t had a failed culture. There was always yelling, hostility from parents, students assaulting staff" (Dillon 2004). Part of the problem is that teachers may be reluctant to leave schools where the culture has gone sour for fear of not finding a better job. As a result of this particular school's reorganization, during which new, more highly motivated teachers with "save the world" attitudes were hired, the teacher reported that the number of students performing at grade level rose from sixteen percent to thirty-six (Dillon 2004). Thus, a turn around is possible in such schools, but only with a major reorganization and revitalization of its culture.

There is a tension between the things that make a public school effective (e.g. strong sense of purpose, connections with external community, shared value system, adequate resources and morale), and the bureaucratic nature of most public schools. Drawing on the literature on effective schools organization, Bryk and Driscoll (1988) identify three elements of communally organized schools which may have beneficial effects for student behavior and achievement. These elements in concert are suggested to increase achievement and improve behavior because the experience of a communally organized school acts to bond or attach students to its goals and processes. These elements are a shared value system, a common agenda of activities and an ethic of caring. Using the High School and Beyond data of 1984 (Peng et al. 1981), they test the hypothesis that an index of variables measuring different aspects of communal school organization will be negatively associated with student problem behaviors (e.g. class cutting, absenteeism, unruliness in class) as reported by teachers and positively associated with achievement. They also hypothesize, and subsequently find, that

communal organization is stronger in schools that are smaller, are Catholic or private and have a certain degree of homogeneity among the student clientele. Private schools were found to have the highest level of communal school organization at 2.09 units above the standardized mean value and public schools the lowest at .25 units below. Catholic schools had a mean communal school organization score of 1.11 units above the mean. Smaller schools had a mean communal school organization scale 1 unit above the mean with very large schools (i.e. more than 1800 students) scoring at .41 units below the mean. Schools with high ethnic diversity lay at .23 units below the mean while those characterized by low diversity stood ad .24 units above.

Not surprisingly, they find that "classroom disorder is more prevalent in large schools, in ethnically diverse schools, and in schools where the average level of students' academic background is weak" (Bryk and Driscoll 1988: 25-26). But, they also find that controlling for aggregate student demographics and school size, the index of communal school organization has a strong negative relationship to the measures of student problem behaviors. That is, as teachers' and students' experience of their school as communally organized increases, the level of student misconduct decreases net of socio-economic effects. They find that the measure of communal school organization has a much smaller, yet significant, affect on mathematics gains between the sophomore and senior years. Not only do they find that communally organization in schools is good for improving student behavior, but it improves achievement in mathematics as well.

While Bryk and Driscoll (1988) use hierarchal linear modeling to control for individual level student characteristics as nested within schools, the primarily limitations of their study are as follows. First, they drop schools from their sample which had 33

percent or more teacher turnover in the previous three years and schools where teachers reported significant change in the educational and disciplinary climate of the schools in the previous two years. This decreases an already small sample size of schools from 457 to 357. This is done, in essence, to stack the deck with schools which already have a certain degree of communal school organization. They do not specify the characteristics of the dropped schools. The second limitation is largely methodological. While they use a sophisticated model to control for nested effects and they find that entering communal school organization into the models reduces the deleterious effect of school size on the outcome variables, they do not use an interaction term between communal school organization and school size. In addition, while they find that schools with more racial heterogeneity have a lower score on the communal school organization index, they also do not consider an interaction term between these two variables. While they find communal school organization to mitigate student problem behaviors, they do not fully specify their model to account for the things which affect this important variable. In essence, they do not attempt to identify those organizational elements which may add to or take away from this organic design feature. They mention that schools where parents are more involved have greater intergenerational closure and this is one reason why Catholic schools are more functional. Nevertheless, they do not explore this possibility in their model. Lastly, Bryk and Driscoll (1988) do not disaggregate their sample by geographic location nor include a measure of the conditions of the local community which may simultaneously have positive effects on student problem behaviors and negative effects on communal school organization. This may primarily be due to the small sample size.

Battistich and Hom (1997) found very similar results to Bryk and Driscoll in their study of the effects of school community among a socio-economically heterogeneous sample of 1434 fifth and sixth graders from 24 elementary schools on their drug use and delinquency. They used a two-level hierarchical linear model of students within schools controlling for gender and minority status in the student-level equation. At the school level, they controlled for grade level (5th or 6th), poverty level of the student population, total enrollment, mean achievement and mean English proficiency. They found that schools with socially communal characteristics such as caring and supportive relationships and constitutive decision-making by its members "moderate relationships between individual risk and protective factors and developmental outcomes" (1997). Like other research on this topic involving hierarchical linear models, they found that the majority of variability occurs within schools rather than across them.[15] In fact, only 7% of the variability in drug use and delinquency and 2% of the variability in victimization existed between schools. This suggests that differences in students and not in schools mattered for predicting the outcome variables. At the student level, males were more likely than females to engage in delinquent behavior, use drugs and be victimized in school. Students' sense of community had a small but significant effect on student delinquency, but not on drug use or victimization. Moreover, student ethnicity was only predictive of delinquent acts, not drug use or victimization.

At the school level, they found that school size, mean achievement and mean English proficiency were not predictive of student problem behaviors net of student characteristics. In schools where the sixth graders were the oldest students in the school,

[15] A discussion about the relative worth of privileging the variance within vs. across units will be presented in the following chapter.

delinquency and drug use were higher than in schools where fifth graders were the oldest students. In addition, aggregate sense of community in a school had a significant but weak effect on student delinquency similar to its effect at the individual level. In a methodological improvement over Bryk and Driscoll (1988), Battistich and Hom (1997) included an interaction term between aggregate student poverty and students' sense of school community. They found that student poverty only exerted an influence on these student outcome measures vis-à-vis its negative effect on school community. Schools one standard deviation above the mean level of poverty did not experience a decrease in student delinquency per unit increase in aggregate school sense of community. The conditional school model where all school level predictors was present accounted for 50% of the variability between schools in drug use and 60% in delinquency.

Battistich and Hom's (1997) study had slight improvements over Bryk and Driscoll's (1988) research. First, their scale of students' sense of community was more developed than Bryk and Driscoll's measure of communal school organization (31 items vs. 23) and it had a higher internal consistency (.91 vs. .80). A second improvement was the introduction of an interaction term on the school level equation between aggregate student poverty and sense of school community. Their finding that increased school level aggregate poverty reduces students' sense of their school as a community leads them to suggest that "interactive contextual influences of poverty and school sense of community on development also merit increased attention in future research" (Battistich and Hom's (1997: 2001).

The study, however, has three limitations. First, the sample was of fifth and sixth graders. While delinquency has reportedly been on the rise in younger age groups, this is

hardly the ideal age for a study concerned with drug use and victimization. As research has indicated (Welsch et al. 1999; Gottfredson et al. 2000), junior high school aged youth engage in more risk-behaviors like fighting at school than their elementary or high school aged counterparts. Second, the dependent variables are student self-reports of delinquent and disruptive behaviors which have been shown to be problematic. Third, this study involves a very small sample of students, with the sample not disaggregated by geographic location.

Total School Enrollment and Student-Teacher Ratio

Two important findings emerge from these two studies on the effect of communal school organization on student behaviors. First school size apparently not only has a direct effect on student behaviors, but also an indirect effect. Bryk and Driscoll (1988) found that a substantial part of the positive relationship between school size and student behavior decreased when their measure of communal school organization was entered into the model. Research sensitive to the social ecology of schools suggests that the number of students in a school and the number of students per teacher may have a significant influence on schools' ability to secure order and student achievement net of all other factors (e.g. resources, teacher quality, student background). One practical cause of the increased victimization in schools with more students may have to do with the size of the school physical plant. Surveillance and control of student interaction is made more difficult in schools with larger physical plants. Metz (1985) points out that the extremely long hallways of Hamilton resulted in continual traffic jams and nosiness as students moved from classroom to classroom. Research has shown that victimization is more likely to occur in hallways, bathrooms, lunchrooms and playgrounds where there is less

teacher and staff supervision (Toby 1995; Short 1990; Astor and Meyer 2001). There are simply more of these "subcontexts" or "micro climates" outside of classrooms where victimization, like bullying, is possible. Large schools have also been suggested to aid in the formation of anti-school and anti-social peer groups (Coleman 1965; Gottfredson and Gottfredson 1985). In terms of school social environment or morale, large schools lack what smaller schools are purported to have: greater opportunities for staff-student interaction and the creation of the "we" feeling which is necessary for school bonding (McPartland and McDill 1977). Teachers in large schools do not come into regular contact with each other, meaning that they miss out on exchanging information about particular students and their problems. This information can prove to be useful in securing a stable and consistent discipline climate.[16]

A number of studies have shown a significant bivariate relationship between total school enrollment and victimization and deviance (NIE 1989; Gottfredson and Gottfredson 1985; Nolin, Davies, & Chandler, 1995; DeVoe et al. 2003), but results on the independent effect of this variable are mixed. In their reanalysis of the NIE Safe Schools Study data, Gottfredson and Gottfredson (1985) found strong Bivariate correlations between total student enrollment, teacher victimization and school disorder. But, once student and neighborhood characteristics were controlled for in multivariate analysis, they found only a weak significant relationship (.11, $p < .01$) between total

[16] Large schools, on the other hand, are purported to have a number of material and social benefits which small schools lack. Materially, larger schools have more variegated resources and staff members. This included extra curricular activities (sports teams, musical groups, theater) and differentiated staff members which allow those students with a particular penchant the opportunity to bond with their school. Watt (2003) finds that larger public schools are more protective against depression, suicidality and violent dispositions than smaller schools and private schools partially because larger schools offer more social diversity. The social pressure to conform and belong is less intense in schools with more students because there are more student cliques and social networks. The critical mass effect of large schools mean that students are more likely to find others with whom they share things in common, therefore, reducing alienation.

enrollment and teacher victimization in junior high schools. In their study of middle schools in Boston, Massachusetts, Hellman and Beaton (1989) found that enrollment did not significantly predict the level of student violence. It appears that the relationship between total school enrollment and victimization may be better explained by other intervening variables such as aggregate student race and class. Larger schools tend to be in urban areas where there is more concentrated disadvantage and larger numbers of minority families. It is these demographic factors which may be simultaneously predictive of student resistance and violent behavior and total school enrollment. Part of this may also have to do with the methods employed. There are potentially multiple associations between school characteristics like size and student demographics which should be accounted for. Linear regression is perhaps not the best method for controlling for all of these interactions effects.

Little attention has been paid to the influence that the average number of students per teacher in a school has on student problem behaviors. It may be an obvious point that the more students per teacher in a classroom, the more likely that student unruliness will be a problem. An increase in aggregate number of students per teacher is likely to reduce the amount of quality attention teachers can give their students. As more general unruliness takes place, teachers lose their moral authority over students and informal social control breaks down. This allows for deviant attitudes and activities to take hold. Like an increase in the total number of students in a school, an increase in the number of student per teacher is purported to break down the influence of school culture or community. Large schools may combat their deleterious effects by having smaller class sizes where students can receive ample attention.

One important factor to consider with regards to the effect of higher student-teacher ratios on student behaviors is that it may be a proxy variable for school resources or quality. Resources like the number of teachers in a school or the physical size of a school are highly dependent on the financial base of school districts. What most, if not all, existing studies do not consider is that these two organizational variables are strongly correlated – the more students a school has, the more students each teacher in that school typically has. This is an effect of the bureaucratic nature of public school administration. Schools are complex organizational and social entities; therefore, care should be taken to explain the variance not only between their characteristics and outcome variables such as student behavior or achievement. This can detail significant mediated effects while also improving the overall fit of the multivariate model. This research tests again the assumption that larger schools and schools with more students per teacher have a positive effect on student misconduct and violent behavior net of student demographics with two important additions. First, it simultaneously controls for the effect that student demographics (e.g. race and class) have on total school enrollment and student-teacher ratio. Second, it allows for school size to predict the student-teacher ratio. This is done, therefore, to fully account for causal interrelationships between independent variables as well as controlling for spuriousness between the independent and dependent variables.

This review of the quantitative studies on the effects of social disorganization and communal school organization on student behaviors suggests two things. First, greater attention needs to be placed on the control and input teachers have in school-wide discipline climate. While public schools may suffer from a lack of communal organization, they can benefit from a collective authority of teachers over schools'

discipline climate. When students sense that every teacher is cognizant of school rules, enforces them fairly and consistently and enforces them for students who are not in their class, this provides a unified moral climate. Another thing made clear in this review is that the association between student disadvantage and problem behaviors is heavily mediated by elements of school organization. Principle elements to consider are a school's discipline climate as well as its size, student-teacher ratio, parental involvement and resources. Along with these are formal elements of school security like security efforts and violent prevention programs. It is to these two elements that this research now turns.

School Security Measures

While school security measures and programs aimed at curbing student problem behaviors have now become widespread, very little systematic analysis of whether or not these are having any effect on a national scale has taken place (cf. Gottfredson et al. 2000; Welsh et al. 2003; Furlong et al. 2003; Wilson et al. 2003). One of the first attempts to gauge the effectiveness of school security personnel on safety in schools at the National level is contained in the Gottfredson's (1985) reanalysis of the NIE Safe School Study. Exemplifying again the limited nature of the data, they are only able to examine the influence of a "Extensiveness of Security Measures" factor (the manifest indicators of which are not specified) on school disorder with only a few other control variables. Absent from this analysis are neighborhood and school demographic measures which might contribute to an increase in the use of school security measures. It should be no surprise, then, that they find an increase in the extensiveness of security measures is associated with an increase in teacher (but not student) victimization and overall

disruption. It should be assumed that schools that have an increased level of disorder would also have increased levels of security, particularly using cross sectional data. Thus, this study address this lack of systematic and national level research on the effectiveness of school security efforts like uniformed police officers and metal detectors to reduce the level of violent behavior of youth in schools. Because of the use of SEM, this research can also identify those demographic and school organizational factors which contribute to an increase in the use of these measures.

Violence Prevention Programs

In their national study of delinquency prevention in schools, Gottfredson et al. (2000) identify eight school-based intervention programs aimed at reducing the level of student delinquency and violence. These programs are aimed at: 1) promoting social competency among high-risk and general school populations; 2) teaching behavior management; 3) environmental change to improve school and behavior management in schools; 4) increasing individuals' bonds to the social order; 5) decreasing intruders, weapons possession and weapon availability; 6) improving surveillance; 7) providing recreation and after-school activities; and, 8) providing information regarding risk-aversive behavior (1-3). To gauge the effectiveness of the implementation of these programs, Gottfredson et al. (2000) develop a set of adequacy criteria based on facets of quality or quantity involved in delinquency prevention. These facets include: duration (e.g. longer than a month, more than one full school year); frequency of participation of students and staff (e.g. daily, weekly); frequency of operation (e.g. monthly, yearly); and, proportion of students participating (a percentage). Each program is ranked as adequate or inadequate based on a cut-off point below which each facet would theoretically be

ineffective. This results in a ranking for each prevention effort, whether school security or social program, ranking on a scale of 1 to 0 with 1 indicating that the program or strategy met 100% of each of the four adequacy criteria.

Despite the prevalence of violence prevention programs and their ambitiousness, they find that "only 57% of the indicators of quality or quantity were judged to be sufficiently strong to be expected to lead to a measurable difference in the desired outcomes" (4-15). Classroom and school-wide programs appeared to be implemented with greater consistency than programs aimed directly at individual students (4-16). School planning, classroom organization and management and "activities that involve youths in regulating student behavior (e.g., peer mediation, student courts...)" (4-17) scored respectively .71, .71 and .79 on the criteria scale. Programs to change school climates and improve classroom instructional practices scored .64 and .59 respectively. Services aimed at individuals – "family services, behavior management, and counseling" – were the most poorly implemented activities, with averages of .42, .47, and .45 of criteria adequate" (4-17). Owing to their typical year-round implementation, security measures had a high mean adequacy score of .73. Overall, urban schools tend to have a slightly higher ranking of the dimensions of their delinquency prevention. Sixty-one percent of urban schools' indicators of prevention quality or quantity met the adequacy criteria, primarily owing to the consistency with which school security is implemented.

Gottfredson et al. (2000) contend that a higher than average ranking for a school's program may actually conceal the absence of an adequacy criteria necessary for program effectiveness. For instance, two instances of the highly standardized D.A.R.E. (Drug Abuse Resistance Education) program may receiving a "passing" grade on the overall

adequacy criteria, but the instance where methodological best practices are not used is likely to be unsuccessful. Thus, scores of programs which are adequate may actually obscure the reality of their failed implementation. To control for this fact, they create a "report card" using a 10-point grading scale for all of the activities. An 'A' grade indicates that 90-100% of the quality dimensions were rated adequate, a 'B' represents that between 80-89% of the criteria were met, and so on. Their results present below in Table 3.1 and are startling. Nearly half (47%) of all programs receive a failing grade according to their criteria. More programs fail in rural areas (52%) than in suburban (46%) and urban areas (40%). With as much money and time that is being invested in these programs, this report card does not suggest that they provide and adequate return.

Another facet of the Gottfredson et al. (2000) survey was to collect information on the day-to-day functioning of schools' discipline climate. They collect data on five Likert scale items which measure quality of school discipline from the perspective of students and teachers. These include: 1) Communication and Documentation; 2) Range

Table 3.1: "Percentage Distribution of Overall Activity Grades, by Location" (After Gottfredson et al. 2000)

		Percentage of Quality Dimensions Rated "Adequate"			
Grade		**Rural**	**Suburban**	**Urban**	**All Locations**
A	90%-100%	15	18	20	18
B	80%-89%	11	10	12	11
C	70%-79%	10	11	13	11
D	60%-69%	12	13	15	13
F	<60% 40	52	48	40	47

of appropriateness to misconduct; 3) Range of responses to desirable conduct; 4) Disciplinarian consistency; and, 5) Predictable disciplinary decision-making (4-5). They

suggest an adequacy cut-off point of 70% for each item. While most schools (93%) have adequate communication and documentation, they tend to fall very short in the other four areas (408). They find that only 48% of all schools satisfy their criterion for disciplinarian consistency. The figure is 10% lower for urban schools. In terms of predictable responses to students breaking school rules, only 31% meet the adequacy criterion. Schools appear to do well in terms of communicating their rules and employing swift sanctions when the rules are broken, but many do not have an adequate range of appropriate responses to desirable and undesirable conduct. They conclude that on 10% of U.S. public school use "minimally adequate discipline practices" and that "[t]he potential to improve practices in these respects may be great" (4-8).

This chapter has outlined quantitative research on the causes of school disorder and particular responses to curb it. What is made apparent here is that the social atmosphere in a school, particularly a school's approach to discipline, is an important factor in preventing disorder. But, this discipline climate is shaped by many things in a school like its size, the background of the students in attendance, the local community environment and the involvement of parents, law enforcement and community members. The following chapter outlines the methodology used in this study to explore the impact of teachers' school-wide authority over discipline as one element of communal school organization on student problem behaviors considering elements of both the demographic and organizational context.

CHAPTER FOUR
METHODOLOGY

This chapter outlines the research methodology used in this study of how teachers' authority over discipline in their schools affects the degree of student misconduct and violent behavior they report. The 1999-2000 Schools and Staffing Survey, the primary data source for this study, is first detailed. The criteria by which schools were selected for the final sample are then presented. Following this is a discussion of the process by which the 2000 U.S. Census tract data is added to the each school in this final sample. The chapter then turns to the dependent and independent variables that operationalize the theoretical constructs of interest in this study. The statistical procedure being used to examine the variable relationships and the research hypothesis will then be introduced. Accompanying the research hypotheses are also figurative diagrams as well as the full structural equation model. The chapter concludes with a discussion describing the relative benefits of using Structural Equation Modeling as opposed to Hierarchical Linear Modeling to test the study hypothesis as well as the statistical and theoretical concerns in the use of aggregated data.

Data

Primary Data

The primary data being used to test the research hypotheses was collected by the 1999-2000 Schools and Staffing Survey (SASS), a set of survey instruments designed by the National Center for Education Statistics (NCES) and administered by the U.S. Census Bureau. Administered four times – in 1984-85, 1987-88, 1993-94, and 1999-2000 – the SASS is a nationally representative stratified random sample of all U.S. schools,

including public, private and charter. Its goal is to inform educational policy and educational research related to U.S. schooling by offering a comprehensive picture of school organization and staffing conditions.

With the exception of Ingersoll (1996; 2003), little research on student problem behaviors has been conducted using the SASS survey. Despite being overlooked as a source for school disorder data, the SASS in general, and the 1999-2000 issuance in particular, is a worthwhile source of data on the neighborhood and organizational context of student discipline problems. First, the SASS is one of the very few truly nationally representative samples of all schools which have measures of student problem behaviors as well as relevant variables for making hypothesis about contextual factors such as communities and schools. Most surveys that collect data on student problem behaviors are useful for providing descriptive statistics about levels and types of victimization in schools. They lack the contextual depth necessary for hypothesis testing at the school, district, state or regional levels. This is partially a result of the prohibitive costs of issuing surveys which involve multiple sources of data. Examples include NCES' Teacher Survey on Safe, Disciplined, and Drug-Free Schools (Mansfield, Alexander and Farris 1991), and Violence in America's Public Schools (Metropolitan Life Insurance Company 1993; 1994). NCES' recent effort, the 2003 School Survey on Crime and Safety (SSOCS), while more recent than the 2000 SASS, may not present the most reliable source of data on student behaviors because it entails a survey of principals. Without broader contextual measures, surveys that collect data only on student problem behaviors have been criticized for suffering from a "confirmatory hypothesis verification approach" (Furlong and Morrison 1994: 336). Here, disorder "is assumed to exist and

survey questions elicit responses that confirm its existence" (336). The omission of other sociological contextual measures makes it impossible to conduct research with the aims of informing general policy-making with regards to school safety.

While few nationally representative and sociological comprehensive datasets on school violence exist, one exception is Gottfredson et al.'s (2000) National Study of Delinquency Prevention (NSDP) in Schools. The NSDP is also a stratified random sample with many contextual variables. The sample, however, is much smaller than that of the SASS. Gottfredson et al.'s (2000) dataset contains 848 schools while the SASS collects data from 8432 schools. Payne's (2002) study using the NSDP contained a final sample of only 124 high schools and 181 middle schools. This hardly qualifies as a nationally representative sample of schools.

A second advantage of the 1999-2000 SASS survey is that it can capture relatively contemporary conditions in U.S. schools. The National Educational Longitudinal Survey (NELS), a longitudinal survey of students, schools and parents started in 1988 is nationally representative and has a myriad of contextual measures and measures of student delinquency from students, teachers and principals. But, the NELS does not capture more recent conditions and activities regarding student problem behaviors. For instance, the 1999-2000 SASS contains a battery of questions about school security efforts of concern here such as the presence of security personnel and the use of metal detectors. The extent of school security efforts captured by the NELS survey are limited to such items as whether or not the school requires hall passes for students to go visit the library or bathroom. Thus, this most recent SASS dataset provides a timely window on the state of student problem behaviors in schools.

Creating the final sample required several decisions. The first of these was deciding which teachers' data should be included. For the purposes of this research, only the data from full time equivalent (FTE) teachers will be considered to improve accuracy of the estimates. Part time teachers may work in more than one school or not have as good a perspective on school functioning as FTE teachers. The emphasis in this research is on understanding the school organizational conditions that contribute to student misconduct and violent behavior from the perspective of teachers. However, U.S. public schools are not uniform and, concomitantly, the schools in the SASS survey are also not uniform. Public monies are spent on educating young people in a wide variety of settings, some of which are isolated from the general public or serve a homogenous population. And, school reform efforts have changed the face of education in the U.S. The goal in selecting schools for the final sample entailed identifying those schools which represent a particular modality in U.S. public schools: traditional junior and senior high schools.

Traditional public schools are defined as:

> institutions that provide educational services for at least one of grades 1–12 (or comparable upgraded levels), have one or more teachers to give instruction, are located in one or more buildings, receive public funds as primary support, and are operated by an education agency (NCES 2002-213: 1).

In the U.S., 88,266 schools meet these criteria. These traditional public schools are staffed by 82,802 principals and 2,984,781 teachers in 14,505 public school districts serving 45,099,506 students. The complete public school SASS sample collected data

from 42,086 teachers and 8432 schools.[17] Thus, roughly 10% of U.S. public schools were sampled with 1.4% of public school teachers being sampled. Because 744 schools were missing data from the school survey, the complete base sample is 7968 schools.

The SASS' vast size and complex sampling framework provides some assurance that an accurate picture of the state of schools in the U.S. is provided. The total universe of public schools in the U.S. provided by the Common Core of Data was used to construct the sampling frame. Besides providing nationally accurate estimates for all public schools, there are to additional sampling goals of the SASS. The first was to generate statistically representative estimates for schools and teachers at the state and regional levels (NCES 2002-213: 198). The second was the goal to generate statistically representative estimates for elementary and secondary schools within each state. A sampling frame such as the one used with the SASS provides design weights which are used to correct for the highly variable standard errors produced by this complex sampling procedure. These weights should be used in analysis to correct for deviant standard errors resulting from the sample allocation process, or due to over or under sampling, whether planned or an unintentional result of the survey collection process. However, these weights will not be used in this analysis and justification is provided below in the discussion of the statistical procedure used here. Complete details regarding the sampling frame, survey instruments, and sample weighting are provided by NCES (2002).

[17] In actuality, the data collected from teachers represented 744 more schools than had a corresponding school survey. Thus, the initial teacher sample was reduced by 3,350 to a base sample of 38,736 teachers within 7968 schools.

Several theoretical and statistical considerations were made in selecting cases to comprise the final study sample. The first of these was to remove elementary schools from the analysis. While violent incidents have reportedly risen in the last decade in elementary schools (DeVoe et al. 2003: 82), violent behavior among elementary school students is still very low when compared with junior and senior high schools. While very young people do lack impulse control, they generally do not have as well-developed repertoire of aggressive behavior as older students. They also do not have as well developed sense of the peer group, an important source of conflict among students. Another reason to drop elementary schools from the dataset stems from the fact that aggressive acts among students take place in settings outside of classrooms such as hallways, playgrounds, and the cafeteria. Because elementary students tend to remain in one classroom for most of the day and are usually closely monitored by one or more teachers, elementary students do not have as much opportunity to interact with other students in unsupervised settings outside of their classroom. Moreover, two of the indicators of the student misconduct measure described below involve student tardiness or class cutting. Because elementary students do not routinely switch classes unsupervised, this factor would not be an adequate measure of misconduct in these schools.

Existing research has found that junior high schools typically have the highest levels of school violence and disorder (National Institute of Education 1978; Heaviside, Rowand, Williams and Ferris 1998; Gottfredson et al. 2000). Gottfredson et al. (2000) found that 21 percent of junior high schools in their sample had reported that a physical fight or attack with a weapon had occurred. Half as many (10.6) senior high schools

reported such incidents.[18] Due to this difference, it is not surprising that junior high schools have been the focus of most research on school disorder and have received more policy attention in terms of violence and crime prevention programs. It may be argued, however, that the potential for the most serious violence is found in senior high schools. Older students have access to more knowledge and skill about weapons, and for the most part are physically stronger than their junior high school counterparts. As the school shootings have illustrated, violence in senior high schools has the potential to be more severe.

Teachers' reports about the three types of student violent behavior are presented below in Table 4.1. These three measures are combined to create a student violent behavior factor which is the central dependent variable for this research. As predicted, elementary schools demonstrate the lowest mean averages on the three violent behavior variables. While teachers in junior high schools report higher mean averages of student physical conflicts, their senior high school counterparts report that weapons and robbery and theft are more of a problem.[19] Thus, separate analysis will be performed for junior and senior high schools.[20] This first cut reduced the original SASS sample of 7968 schools that had complete data to 1290 junior high schools and 2386 senior high schools.

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[18] One reason why they may have found that high schools had lower incidences of violence may stem from the fact that they included in the category of high schools those schools which served at least one of the upper grades and any of the other grades in so called comprehensive schools.

[19] A one-way ANOVA with Tukey's post-hoc performed on the three samples indicate that the mean values of the Student Violent Behavior factor are significantly different from each other.

[20] There are important considerations in selecting schools based on whether they can be classified as junior or senior high schools, however. First, the age groups and grade levels which make up the three traditional school levels (elementary, junior/middle, senior) differ slightly between states and even across school districts in a state. Depending on the school system, junior high schools (or middle schools) typically start with those grades after the elementary grades and can include grades as high as ninth grade. Senior high

Table 4.1: Mean Levels of Violent Behavior Measures by School Level

	Elementary		Junior		Senior		Total	
Sample Size	1775		1290		2386		5451	
	Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**
Weapons	-.60	.67	.19	.95	.55	.91	0.0	1.0
Robbery/Theft	-.39	1.0	.21	.91	.38	.83	0.0	1.0
Conflict	-.15	1.0	.25	.97	.05	.84	0.0	1.0

A second decision was to remove schools serving at-risk or typically difficult populations. At-risk schools are usually for students who have been suspended or expelled or who have dropped out; schools for students who have been referred for behavioral or adjustment problems; and, schools specifically for students with discipline problems. There are two reasons for dropping such schools from the analysis. First, students designated as "at-risk" may be predisposed to misconduct or violent behavior. Not all students who are deemed "at-risk" are prone to disruptive behavior. Some find that the typical public school model does not suit their learning style. This might lead to disruptive behavior, but such students may also simply drop out of school without any fanfare. In fact, some charter schools have been founded to serve students with non-traditional learning styles who otherwise are well-behaved individuals. Second, schools that serve at-risk populations typically have non-typical organizational environments. They are smaller, have low teacher-student ratios, have more support staff and may be

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schools typically comprise ninth grade or higher through twelfth grade. To examine the effect that teachers' authority over discipline has on student behavior in typical junior and senior high schools, only those schools with traditional pairings of age groups were retained for analysis. Schools where there were elementary grades with either or both junior and senior high school grades or junior and senior high grades combined were dropped. While there may be some argument to analyze schools with combined junior and senior high school grades as a separate group, the SASS survey only sampled these schools so that national level – but not state level – estimates could be computed.

located in a non-typical setting such as a detention center. The goal here is capture these processes in typical junior and senior high schools. Thus, retaining such schools may skew the data in terms of the level of disorder and violent behavior and in terms of organizational characteristics.

There are two questions on its school administrator questionnaire which might be used to identify a school as serving an at-risk population. The first question asks specifically if the school is for at-risk students. Twenty junior high schools and fifty-one senior high schools indicated that they were for at-risk populations and were dropped. The second question asks the school administrator to describe the nature of their school's alternative program if there is one present. An examination of the descriptions of alternative schools which remained in the dataset revealed that a number of these might be considered schools that serve at-risk populations but were not designated as such on the first question. Examples of these designations include "Detention Center, "Dropout Prevention and Retrieval, and "High School for Troubled Students." Another common designation of alternative schools was their status as "continuation" schools. These are schools that serve students who have dropped out of high school.[21] While most of the administrators that identified their school as "alternative" also indicated that they served an at-risk population, some did not. Because the descriptions that exist suggest that these tend to serve non-traditional populations, all schools that self-designated as being "alternative" were removed from analysis.

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[21] Three percent, or 2307 schools, of the weighted SASS sample self-identified as for "at-risk" students. This translates into an estimated enrollment of 350,103 of all U.S. public school students. This number is likely to be higher because many charter schools, not included in this sample, are designed for at-risk students.

A third decision was made to drop magnet schools from the analysis, as they are not tied to particular neighborhoods. While an argument against relying on neighborhood disadvantage as a predictor of student misconduct and violent behavior was presented, this research does consider the indirect effect that disadvantage has on these behaviors vis-à-vis school characteristics such as the number of students and the student-teacher ratio. Schools with a special program emphasis like magnet schools are theorized to draw more parental involvement and resources regardless of the socioeconomic condition of their setting. They also sometimes have better facilities than other schools, and attract more white and middle class students. Six percent of the schools in the entire SASS sample designate themselves as having some sort of magnet program while about three percent of both junior and senior high schools did so.

A fourth decision was to drop schools that served only students with special educational needs (disability, etc) also due to special circumstances of educating such populations. For instance, these schools generally have very low student-teacher ratios and highly trained staff. Removing schools that serve at-risk or special education populations, alternative and magnet schools from the sample of junior and senior high schools reduced the sample by 71 junior high schools and 236 high schools.[22]

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[22] Due to their isolation and particular socio-economic circumstances, one of the school types considered for removal was Bureau of Indian Affairs (BIA) schools. As of the 1999-2000 school year, there were 177 BIA schools serving 42,532 Native American students and staffed by 182 principals and 3,564 teachers (NCES 2002-313: 87). BIA schools were retained in the analysis for two reasons. First, one of the questions addressed by this research is how certain school organizational characteristics mediate the relationship between neighborhood disadvantage and student behavior. Because BIA schools serve, for the most part, an extremely impoverished and remote population, this relationship is expected to be more present. Second, there were relatively few BIA schools surveyed by the SASS. There were 35 BIA schools in the base dataset and thirteen of these remained in the dataset up to this point. While teachers in these 13 schools reported extremely high mean values of student physical conflict, robbery, vandalism and weapons possession, there is no specific reason to exclude them from analysis. While BIA schools are a particular sort of school serving Native Americans, there are significant Native American populations in non-BIA schools as well. As will be discussed, Native American students were included in the count of

Before a discussion of the final sample can be presented, however, a discussion of how U.S. census data was merged to the SASS dataset must first be presented because it has implications for the final sample. This also includes a brief discussion of why data from schools in two states, Alaska and Hawaii, was also dropped from analysis.

Secondary Data

That the U.S. Census coincides with the 1999-2000 SASS survey is a rare and fortunate event because of the avenues of analysis it makes available. The addition of secondary 2000 U.S. Census data for each school in the final SASS sample allows for the examination of two things. First, it allows for the specification of whether economic deprivation in the census tract around a school has direct implications for student behavior after controlling for student body race and class. Second, it also allows for an examination of the indirect influence that neighborhood disadvantage has vis-à-vis its theorized detrimental effect on school organizational variables such as school size and student-teacher ratio.[23]

Census tract data for four variables commonly used in neighborhood effects research was merged to data for each of the schools in the final sample. These variables are: percent female-headed household; percent males not in the labor force (NILF); percent on welfare; and percent below the poverty line. This involved a process known as geocoding using the Maptitude spatial imaging software package. This program is able to locate the address for a particular case on a spatially referenced map to which it is

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minority students in each school due to the particular social and economic deprivation that their communities currently experience.

[23] The NELS dataset is the only other major educational dataset to date which corresponds exactly to the year of the U.S. Census.

able to merge data from other spatially organized data sources such as the U.S. Census information. The first step involved first locating each school in the SASS sample by its location address (included in the restricted-use data file) on a virtual street file. There are two stages of matching school addresses to their coordinates using the Maptitude software. The first pass through the data has an extremely strict tolerance for matching the supplied address to the database of address locations. The second pass is less strict insofar as it allows the address to be matched to zip codes that are adjacent to the supplied zip code. This is in the event that the supplied zip code is incorrect. The first and second passes identified sixty-six percent of the schools' addresses.

There were instances where the supplied address of the unmatched percentage of schools could be improved on in order to locate it. In some instances, the location address or zip code was missing. Here, an attempt was made to use the information supplied by the mailing address information. For instance, none of the schools in Nebraska supplied a location address; therefore, their mailing address was used. For schools which did not have any address information, an attempt was made to identify the schools using NCES' Common Core of Data (CCD) though a search on the NCES school control number provided. Fifty-four schools did not supply address information. In total, the addresses for thirty-two of these schools were identified in this process.

In the cases where schools supplied no "hard" address information for either their location or its mailing address (such as the case of a P.O. Box or a rural route, or there was no street number), zip codes were used to generate matching census information. This was done as a last resort to maintain the maximum number of cases in the final analysis. Here, census data aggregated to the zip code level was used in lieu of census

tract-level data which is a common practice in neighborhood effects research (Catsambis and Beveridge 2001; Hoffman and Johnson 1999). This was the case for 308 of the schools. Thirty-four schools were dropped from the analysis entirely because they both had missing address information and either the unique school control number did not match any school in past or current CCD files or the school control number was missing.[24]

For those address for which an address or zip code could be located, Maptitude was then used to generate the latitude and longitude coordinates for either the exact location or zip code center point for these schools. For those schools that had exact coordinates, the third step involved associating the coordinates with each school to the census tract in which these coordinates lie. This step does not occur for those schools with only zip code information. Census variable data was then merged to each case using the census tract identification number or the zip code center point.

Consideration of Sampling Design Effects and Data Weighting

The SASS is a stratified random sample and, as such, replicate weights are supplied to control for design effects which result in inflated sampling variance estimates (Stapelton 2004: 5). While statistical analysis of the SASS data should use these weights to account for the design effects such as oversampling, clustering or differences in the probability of selection, AMOS, like most SEM statistical packages, is unable to utilize data weights. A common practice among educational researchers who use nationally representative data with complex sample designs has been a "conventional" one: simply

[24] Appropriate NCES' employees were contacted with regard to these schools for which there were no address information supplied and which also could not be identified using the CCD. The researcher was informed that due to lack of resources, this information could not be supplied.

not accounting for design effects (Muthén and Satorra as quoted in Stapelton 2004: 2). One program, MPlus, is currently being examined for its "Taylor Series linearization-type method" which is able to better account for specific design effects conditioned by the use of primary sampling units and strata to select cases (Stapelton 2004: 6). Because efforts to attend to this shortcoming of SEM analysis packages in adjusting for the design effects of complex stratified samples are only recent, this research relies on the conventional approach and no design effects are considered. Therefore, any conclusions made based on the results of the analysis will naturally be informed of this fact.

Subsamples of the Final Dataset

Because this dataset is a very large nationally representative sample of U.S. schools, it is important to consider sociological factors which contribute to variation in the data nationally. First, schools are aggregated based on their geographic location (rural, town, suburban and urban). Students in urban schools have been shown to provide more challenges to order than their suburban counterparts (Stinchcombe 1964; Gottfredson 1985; Barton 1998). More recent research suggests that problems with school disorder are not a purely urban phenomenon (DeVoe et al. 2003; Greene and Forster 2004). Thus, it is necessary to examine the differences that demographic and institutional variables have on school disorder across categories of geographic location. The original variable supplied by the U.S. Census for each school address on the SASS survey locates schools in one of eight categories: Large City, Mid Sized City; Urban fringe of a Large City, Urban Fringe of a Mid Sized City; Large Town, Small Town; Rural Outside of a Metropolitan Area and Rural Inside of a Metropolitan Area. These have been collapsed into four categories which are implied in these names of the variable

values. Schools are now identified as being located in one of City, Suburb, Town and Rural settings.

Another factor being taken into consideration using the national scope of these data concerns how variation in social capital across states may shape how well schools function and student behave in schools. Like Coleman, Putnam (2000) recognized that the level of community involvement has a profound impact on the well being and success of youth, especially in schools. He found that "those states with high social capital have measurably better educational outcomes than do less civic states" (299). And, this effect appears to be independent of "a host of other factors that might affect state educational success – racial composition, affluence, economic inequality, adult educational levels, poverty rates, educational spending, teachers' salaries, class size, family structure, and religious affiliation" (299-300). Statistical analysis presented in the next chapter mirrors Putnam's findings that in states with higher level of social capital, "teachers report higher levels of parental support and lower levels of student misbehavior such as bringing weapons to school, engaging in physical violence, [and] playing hooky," central concerns of this research (301). In that social capital is related statistically with these variables, a second set of subsamples involves separate SEM models for the four groups of states based on their social capital quartile score. Doing this allows models to be compared across these levels of social capital which may help better identify the independent effect that organizational variables have on student problem behaviors. Each state is identified as having lowest, low, high or highest levels of social capital. Schools are then identified by the level of social capital of the state they are located in. Descriptive analysis relating state level aggregates of the study variables with social capital and other state level

measures of societal well-being presented in the next chapter further supports the examination of the variable relationships across these subsamples. Table 4.2 presents the breakdown of the states according to the quartile of social capital in which they fall. This results in a total of sixteen models to be examined: each of the four Geographic location levels (rural, town, suburban and city) across the four quartiles of social capital (lowest, low, high and highest). The distribution of the schools according to these sixteen subsamples is provided in Table 4.3.

The SASS collects data from schools in all 50 states plus Washington D.C. Putnam (2000) is unable, however, to calculate a measure of social capital for Alaska and Hawaii. Therefore, these two states have been left out of the analysis. Omitting them reduces the final sample by 50 schools (20 for Hawaii; 30 for Alaska). Because schools were sampled such that state level estimates could be made, it is reasonable to believe that dropping schools from these two states does not alter the overall viability of the sample.

Final Sample

The final sample consists of data from 5,768 teachers in 1,150 junior high schools and 13,503 teachers in 1,989 senior high schools in the 48 contiguous states plus Washington D.C. For the entire sample, the minimum number of FTE teachers interviewed in a school was 1 and the maximum was 18. The average number of teachers surveyed per school was 6 with a standard deviation of 2.6. Because the majority of schools retained in the analysis follow the organization of the SASS sampling framework, the estimates are argued to be representative of typical junior and senior high

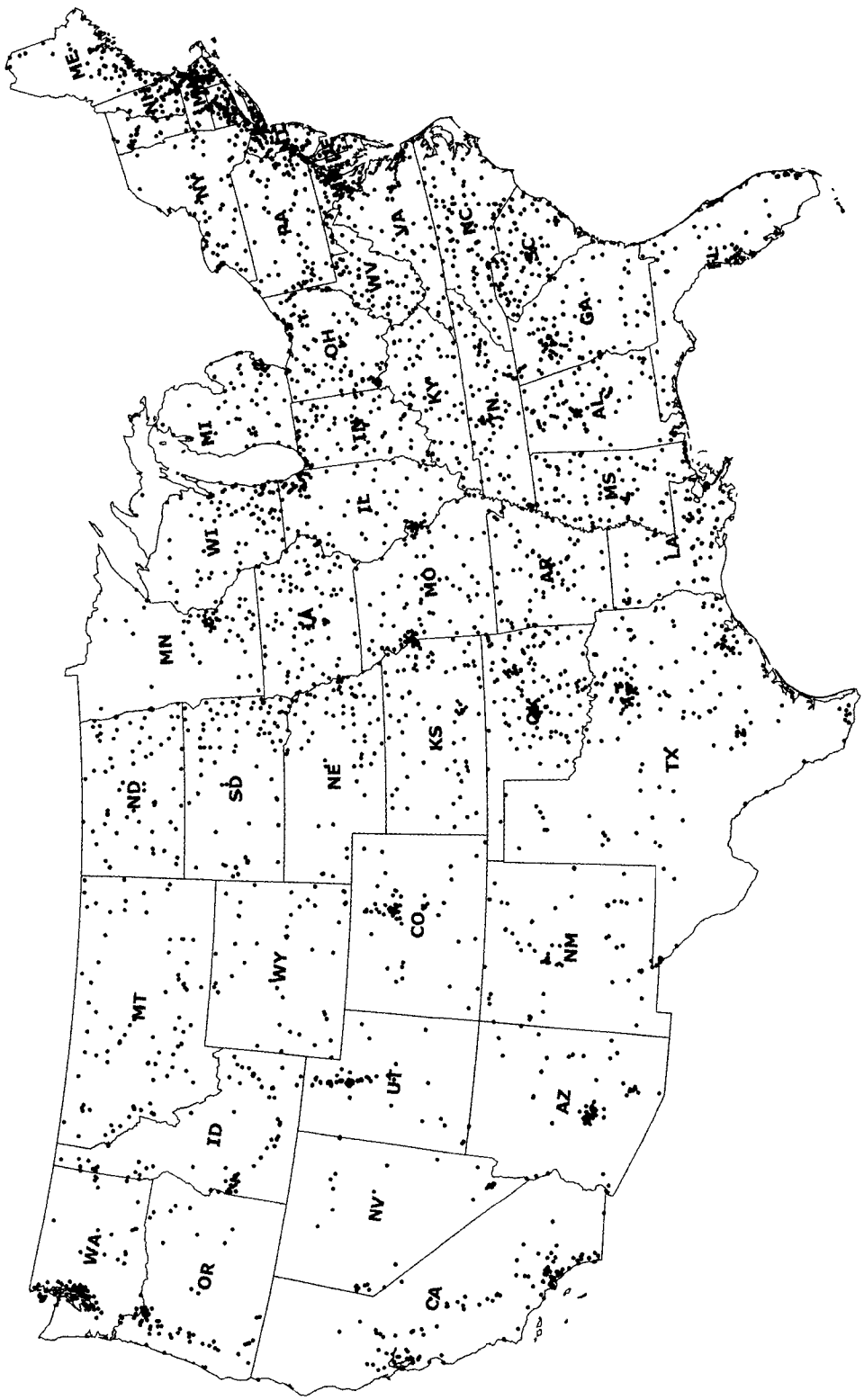
schools at the state and national level. Map 4.1 presents the national distribution of schools in the sample.

Table 4.2: States by Quartile of Putnam's Social Capital Scale

1st Quartile	2nd Quartile	3rd Quartile	4th Quartile
AL	CA	AZ	IA
AR	FL	CO	MN
GA	IL	CT	MT
KY	IN	DE	ND
LA	MD	ID	NE
MS	NJ	KS	NH
NC	NM	MA	OR
NV	NY	ME	SD
SC	OH	MI	VT
TN	OK	MO	WA
TX	PA	RI	WI
WV	VA	UT	WY
	DC		

Table 4.3: Unweighted Number of Schools per Subsample Group

State Level of Social Capital	School Locale									
	Rural		Town		Suburb		City		Total	
	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.
Lowest	57	174	83	156	86	153	80	102	306	585
Low	49	135	57	89	140	265	71	88	317	577
High	62	123	49	76	115	141	51	71	277	411
Highest	88	164	79	109	41	81	42	62	250	416
Total	256	596	268	430	382	640	244	323	1150	1989



Map 4.1: National Distribution of Schools in the Final Sample

Operationalization of Theoretical Constructs

Dependent Variables

Student Violent Behavior

Pearson's correlations for the dependent and independent variables are presented in Table 4.4. The dependent variable, Student Violent Behavior, is a latent variable comprised of three questions asked of teachers about specific dimensions of student violent behavior at their school. The three items measure the degree to which teachers think Robbery and Theft (Robbery), Physical Conflicts (Conflicts) and Possession of Weapons (Weapons) are a problem at their school. The possible answer categories are "Not a Problem," "A Minor Problem," "A Moderate Problem," or "A Serious Problem" with the lowest response category coded as '0' and the highest as a '3.'

There are two possible methods of creating a school level index for each to be used in descriptive analysis. The first method would be to add the indicators of each latent variable together at the teacher level. This would create an index score for each teacher. These could then be added together and then divided by the number of teachers in each school to arrive at a school level index score. The second method is to calculate each dimension first as a school aggregate mean score and then add these together. For example, each school would have a score on Weapons which is the sum of every teacher's score on this indicator divided by the number of teachers in a school This second method is preferable for four reasons. First, calculating the dimensions across teachers instead of using separate teacher-level student misconduct scores ensures that the school remains the conceptual and statistical unit of analysis. If a misconduct scale

Table 4.4: Pearson's Correlations for Study Variables

			A	B	C	D	E	F	G	H	I	J
Dependent Variables	**A**	Student Misconduct	--									
	B	Violent Behavior	.619***	--								
Demographic Variables	**C**	Neighborhood Disadvantage	.174***	.230***	--							
	D	Percent Minority	.356***	.444***	.480***	--						
	E	Percent School Lunch	.140***	.225***	.588***	.582***	--					
School Organization Variables	**F**	Teachers' Discipline Authority	-.431***	-.367***	-.046**	-.137***	-.035*	--				
	G	Student-Teacher Ratio	.195***	.181***	-.069***	.065***	-.127***	-.016	--			
	H	School Size (log)	.327***	.326***	-.170***	.141***	-.246***	-.156***	.502***	--		
	I	Parental Involvement	-.154***	-.097***	-.190***	-.038*	-.072***	.081***	-.029	.062***	--	
Security Efforts	**J**	Security Methods	.315***	.325***	.149***	.378***	.125***	-.127***	.214***	.458***	-.025	--
	K	Violence Program	.070***	.096***	.025	.078***	.039*	-.027	.060	.147***	.157***	.141***

* p <.05** p < .01 *** p <.001

was first calculated per teacher and then a mean score were created across teachers, individual teacher effects might confound an overall school effect. While there are benefits to accounting for teacher-level effects such as age, experience and the academic discipline or track a teacher is in, this research privileges the collective experience of schools as social institutions. Second, a non-normal distribution results when indices are first calculated per teacher and then averaged per school. When each item is calculated across teachers, a more normal distribution is produced. Third, most of the questions ask teachers about their perceptions of student violent behavior and misconduct in their school. Thus, these questions already position teachers as informants on their particular school, not solely about their own experiences (though, it should be assumed that their particular experiences greatly shape their perceptions about their school in general). Lastly, each of the separate dimensions which make up their respective indexes can be examined separately when calculated across teachers in a school. Calculating each dimension separately appears methodologically more appropriate than calculating a latent variable index per teacher and then aggregating to the school level. For the purpose of descriptive statistical analysis, the three latent factor scores have been standardized to allow for better comparisons across subsamples.

Student Violent Behavior has an unstandardized mean of 2.44, a standard deviation of 1.09 and a possible minimum of '0' and a maximum of '9.' This variable has an actual minimum of 0 and maximum of 8. Confirmatory factor analysis presented in Table 3.4 indicates that each measure loads highly on one factor with an alpha reliability of .797. Owning to the fact that violent behavior is not a serious problem in

most schools, this variable has a Poisson distribution – the scores for a majority of schools are found clustered towards the lower end of the scale.

Student Misconduct

Student Misconduct is examined both as a dependent and an intervening variable. While there are potentially many dimensions to student misconduct, each of the indicator variables represent factors which have been shown to be crucial indicators of school

Table 4.5: Factor Loadings of the Student Misconduct and Student Violent Behavior Scales

Student Violent Behavior		
Range: 0 to 8, Mean 2.44, S.D. 1.09, $\alpha = .80$		Factor Loadings
	Student Robbery and Theft	.854
	Student Physical Conflict	.855
	Student Weapons	.833
Student Misconduct		
Range: 0 to 9, Mean 3.63, S.D. 1.60, $\alpha = .87$		
	Student Tardiness	.902
	Student Class Cutting	.897
	Interruptions	.892

(dis)order. The first two indicators are Student Tardiness (Tardy) and Class Cutting (Cutting). Teachers are asked to identify in their school if these two factors are: not a problem, a minor problem, a moderate problem or a serious problem. The third item, Misbehavior Interferes (Interferes), asks teachers whether they agree or disagree on a four-point scale whether "the level of student misbehavior in this school (such as noise, horseplay or fighting in the halls, cafeteria or student lounge) interferes with [their] teaching." The answer choices for the third item are strongly disagree, somewhat disagree, somewhat agree and strongly agree. Again, this variable is standardized to allow for comparison across the subsamples and with other variables.

Student Misconduct is a normally distributed continuous variable with an unstandardized mean of 3.63 and a standard deviation of 1.60. Student Misconduct factor has a possible low of '0' and a possible high of '9' which is the actual range of this variable. Table 3.4 above presents the results of confirmatory factor analysis for the student misconduct latent construct. It reveals that all of these indicators load highly on one factor and it has a high alpha reliability of .87. The measurement models for Student Violent Behavior and Student Misconduct are presented in Figure 4.1 and Figure 4.2 below.

Figure 4.1: Measurement Model for Student Violent Behavior

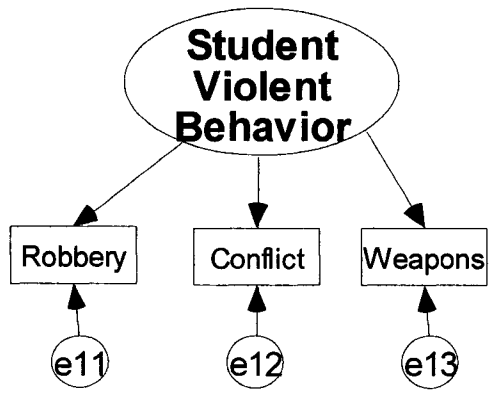
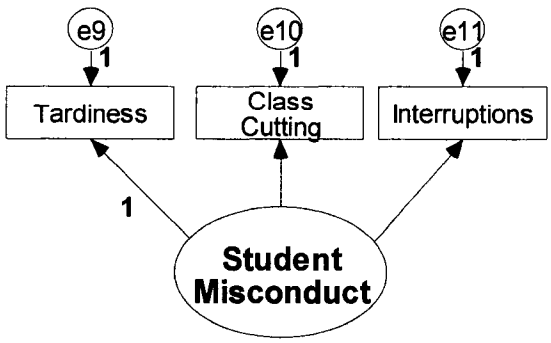


Figure 4.2: Measurement Model for the Student Misconduct Latent Factor



The Conceptual and Statistical Relationship between Student Misconduct and Violent Behavior

Student misconduct and violent behavior are considered similar phenomenon in most research on school disorder. Most scales used in such research combine both less serious and more serious student transgressions. While statistically convenient, this is not conceptually advisable. Student class cutting, interruptions and tardiness is anti-school behavior, not necessarily anti-social behavior. These are relatively minor anti-school behaviors which are ostensibly more subject to teacher and administration control. Thus, student misconduct, as conceptualized and measured here, has more to do with the day-to-day school environment than student violent behavior. When students are engaged actively in learning and there is a sense of school harmony and community, teachers and administrators are ipso facto militating against minor transgressions. As per Wilson and Kelling's (1982) broken windows theory, a school where minor forms of unruly conduct are tolerated can create an environment which fosters more serious anti-social behaviors. In contrast to student misconduct, student violent behavior is theorized to have more to do with the wider cultural, social and economic context of youth than with school functioning. Violent behavior is highly epiphenomenal; it has a wide range of potential triggers, sources and is highly context specific. Violent behavior takes place in schools, but the methods of deterrence and prevention have typically fallen outside of the scope of schools' explicit capacities or purposes. Those institutions which have been given more of the responsibility for curbing violent behaviors among the populace include the police, the penal system and to a certain extent psychiatric care facilities.

Owing to their interrelated nature, the Student Misconduct and Violent Behavior indexes have an unweighted Pearson's correlation of .619 ($p < .001$). The correlation using weighted data is slightly higher at .627 ($p < .001$). Factor analysis conducted with all the manifest student behavior variables indicates that each loads on one factor. As discussed, however, there are abundant conceptual reasons why simple student misconduct should be disaggregated from student violent activity. There are also statistical reasons as well. First, in a promax rotation where two factors are specified, the individual indicators load clearly onto the factor they are assumed to measure (Table 5). This indicates that while these measures are related, they do load on separate factors when forced. Secondly, a high correlation does not imply collinearity. Using standard multivariate linear regression, the student misconduct scale is found not to be collinear with the student violent behavior index. The VIF collinearity diagnostics register under 2, the standard cut-off point for suggested collinearity. Thirdly, when aggregated to the state level, Student Violent Behavior – and not Student Misconduct – is statistically linked to a state's level of social capital (this feature will be examined in the following chapter). This suggests that there is in fact some statistically supported conceptual disconnect between these two student behavioral measures. Finally, student misconduct has a widely varying correlation with the student violent behavior index depending on the subsample. For example, these factors correlate at .397 ($p < .001$) in suburban schools in states in the third quartile of social capital and at .681 ($p < .001$) in city schools in states in the second quartile of social capital. Thus, in SEM analysis, these factors are kept separate due to theoretical necessity, but as demonstrated there is also methodological

Table 4.6: Promax Factor Analysis of Student Misconduct and Violent Behavior Indicators

	Component	
	1	2
Student Tardiness is a Problem	**.847**	7.553E-02
Student Class Cutting is a Problem	**.814**	.122
Student Disruptions Interfere with Teaching	**.976**	-.124
Student Possession of Weapons is a Problem	.124	**.740**
Robbery or Theft is a Problem	-5.356E-02	**.890**
Student Physical Conflict is a Problem	-2.047E-02	**.873**

viability in doing so. Further evidence of the value of keeping these variables separate will be provided in the results chapter.

Independent Variables

The independent variables fall into two categories: (1) neighborhood and school demographic variables, and (2) school organization variables. Means and standard deviations of the dependent and independent variables are presented for each of the sixteen subsamples of the data (schools within the four school geographic locations across the four quartiles of the social capital scale) in Appendix B, Tables B.1 thru B.4. The SASS' robust size allows for this detail of the descriptives.

Neighborhood and School Demographics

Neighborhood Disadvantage

Including a measure of neighborhood disadvantage has two purposes in this research. The first purpose is to capture the effect that social disorganization in a school's local community has in predicting student problem behaviors. This effect is beyond the effects captured by the percentage of minority students and the percentage living in poverty. Research presented in the literature review has found weak associations between the demographic conditions surrounding schools, conditions which contribute to crime and delinquency, with the level of crime and deviance which takes place in schools. While crime from the local area can "spill" over into schools, the reverse is also true (Devine 1996; Jacob and Lefgren 2003). Thus, it is necessary to control for this effect to better isolate the impact of the key variables of interest.

The second purpose in including a measure of neighborhood disadvantage is to examine the effect that the quality of a school's local neighborhood has on the school institutional variables included here. These include student-teacher ratio, size of enrollment, parental involvement and the level of institutionally determined Communal School Organization. Research sensitive to school effects does not typically consider how local disadvantage is mediated through these school level variables. Because of the robust sample size and the ability of structural equation modeling to model mediated effects, I am able to explore the indirect influence that economic and social disadvantage in the local community has on student problem behaviors vis-a-vis these other independent variables of interest.

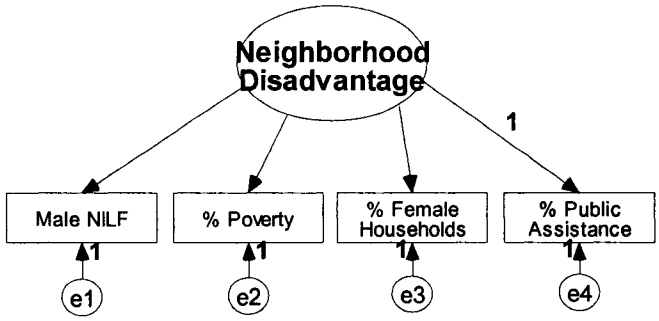
The level of neighborhood disadvantage is typically operationalized in neighborhood effects research by aggregating five census tract variables (Beveridge and Catsambis 2001; Ainsworth 2002; Hoffman 2002). These items include the percentage

of female-headed households; the percentage of high schools dropouts; the percentage of unemployed males above the age of sixteen; the percentage of those on welfare; and, the percentage of individuals living below the poverty line. For this study, the percentage of high school dropouts is omitted because it is found to be too highly correlated with several of the other measures of neighborhood disadvantage. Because these variables tend to be highly skewed, they were each standardized so that each has a mean of '0' and a mean of '1.' Confirmatory factor analysis reveals that these four variables load highly on one factor explaining 67 percent of the variance. Factor loadings are presented in Table 4.6. Figure 4.3 presents the measurement model for the neighborhood disadvantage latent construct using in the structural equation model.

Table 4.7: Promax Factor Analysis of Student Misconduct and Violent Behavior Indicators

	Component	
	1	2
Student Tardiness is a Problem	**.847**	7.553E-02
Student Class Cutting is a Problem	**.814**	.122
Student Disruptions Interfere with Teaching	**.976**	-.124
Student Possession of Weapons is a Problem	.124	**.740**
Robbery or Theft is a Problem	-5.356E-02	**.890**
Student Physical Conflict is a Problem	-2.047E-02	**.873**

Figure 4.3: Measurement Model for the Neighborhood Disadvantage Latent Construct



Percentage of Minority Students

To test for the theory that minority students exhibit more anti-school and anti-social behaviors due to a culture of opposition and resistance, the percentage of students in a school who are Black, Hispanic or Native American are included. Asians are not included as minority students in so far as some studies find that they are as academically successful if not more so than their Caucasian counterparts (Kao 1995). Asian youth have also been shown to have levels of pro-school orientations higher than those of whites (Ainsworth-Darnell and Downey 1998).[25] Thus, they would be less likely to engage in misconduct and violent behavior.

[25] While Ainsworth-Darnell and Downey (1998) find that teachers rank African-American students as more disruptive than white students (541) and that African-American students report that they study less on average than their white and Asian counterparts, African-American students report that they try harder in school than their white counterparts. They suggest that the reason for this discrepancy lies with the fact that what it means to try hard in school (e.g. pro-school attitudes) differs depending upon the abstract vs. concrete rewards for students' efforts. Other possible reasons for these findings may exist. First, Ainsworth-Darnell and Downey (1998) do not disaggregate the data for students by gender. It may be the case that on the whole, African-American students try harder than their white counterparts, but it may actually be African-American females who are trying disproportionately harder, bringing the mean value of all African-Americans up. A second factor which may explain this attitude-behavior difference may lie in the fact they do not account for geographic location.

Student Poverty

Student poverty was measured by the percentage of students on free or reduced-priced lunch (Low SES Students). As indicated in the review of literature, students from impoverished backgrounds are found to be less prepared to succeed in school and often develop a substantial anti-school culture as a form of resistance. Poor students are also regarded as being less prepared for school academically and socially and, thus, perform less well. Thus, it is necessary to control for this affect to identify the independent effects of the other variables of interest, specifically Teachers' Authority to Discipline, total school enrollment and student teacher ratio. Student poverty is highly correlated with the percentage of minority students, particularly in urban areas.

School Organization Variables

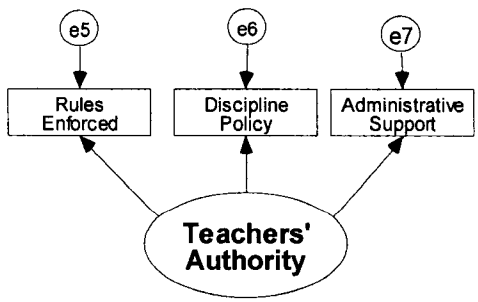
Teachers' Authority over School Discipline

As discussed, the level of teachers' decision-making control, particularly with regard to social aspects of schooling, has been shown to be negatively related to school conflict (Ingersoll 1999; 2003). Clear and consistently enforced school rules have also been shown to reduce student problem behaviors (Bryk and Driscoll 1988; D. Gottfredson, Gottfredson, & Hybl 1993). This research takes the position that a school's discipline climate largely determines teachers' moral authority in their classrooms and their effectiveness at preventing students from disrupting the academic process as suggested by Metz (1978). It is their moral authority which is a primary resource to them as they socialize youth in schools to pro-school and pro-social orientations.

Teachers' Authority over School Discipline (Teachers' Authority) is a latent variable made up of three indicators. The first dimension, Administrative Support, is derived from a question which measures on a four-point scale the extent to which teachers feel their principal enforces school rules and backs them up when they need it. The second dimension, Rules Enforced, is derived from a question which measures on a four-point scale the extent to which teachers feel that "[r]ules for student behavior are consistently enforced by teachers in [their] school, even for students who are not in their classes." The third dimension, Discipline Policy, is derived from a question which asks teachers to what extent they feel teachers at their school have an influence over setting their school's discipline policy. This variable ranges on a five-point scale from a low score of 'No Influence' (0) to 'A Great Deal of Influence' (4).

Teachers' Authority is a continuously distributed variable which has been standardized to a mean of 1 and a standard deviation of 0. This factor explains 61 percent of the variation across these three measures. The measurement model for Teachers' Authority to Discipline is presented in Figure 4.4.

Figure 4.4: Measurement Model for Teachers' Authority over Discipline



School Enrollment

School Enrollment (Enrollment) is derived from the school administrator survey question recording the number of students enrolled for the 1999-2000 school year. As discussed in the literature review, large schools have been demonstrated to have detrimental effects on student achievement, morale and behavior. Because of its skewed distribution, a logged version of school size is used in the Structural Equation Models. The raw value is used in a discussion of the descriptives statistics. School enrollment has a minimum of 6, a maximum of 5030, a mean of 809 and a standard deviation of 603.

Student-Teacher Ratio

As the average number of students per teacher increases, teachers may be less able to give proper instruction and wield effective control over their students. As their ability to govern their classrooms weakens, student bonding decreases. This increased disorder can allow for the moral fabric of the classroom and the school to weaken, increasing the likelihood that anti-social behaviors between students such as teasing, bullying and physical conflict to take place. A school's student-teacher ratio is also considered an important indicator of school quality.

The measure of a school's student-teacher ratio[26] comes via information regarding the teacher and student counts collected by the survey instrument issued to the

[26] The use of a student-staff ratio was considered instead of the more traditional measure of the numbers of students per teachers in a school. Along with the student-teacher ratio, the SASS contains a count of a number of different school officials which might also have an influence over the social climate and the degree of teachers' moral authority in the school. These are both full and part-time: counselors, nurses, social workers, psychologists, speech pathologists, Title One aides, bilingual/ESL aides, teacher and other types of aides. Due to the complexities that this variable introduces into the analysis such as how certain populations requiring more staff, along with the fact that data on student behaviors is only collected from teachers, the more traditional measure of student-teacher ratio is used.

school administrators in the SASS sample. The number of FTE teachers are added to the count of other staff members per school, divided by the number of students and multiplied by 100. This is represented in the following formula:

$$\frac{\text{Number of FTE Teachers}}{\text{Number of Students}} \times 100$$

Student-teacher ratio has a minimum of 1.96, a maximum of 70 and an unstandardized mean of 15 and a standard deviation of 4.5.27

Parental Involvement

Parental involvement in schools is considered in this research for the demonstrated impact that it has on improving students' academic success (Kerbow and Bernhardt 1993; Muller 1993; Fan 2001). Any positive effect on student academic success is theorized to increase student bonding with their schooling process, thereby decreasing their frustration and subsequent misconduct and rebellion. Parents can also be effective in terms of moral support of teachers and helping follow through on disciplinary actions. When parents follow up on information their children's teachers share with them regarding their children's behavior, this can strengthen the moral weight of teacher's discipline. The two most dominant measures of parental involvement in school effects research has been "parent-initiated contact with the school about academic matters, and ... participation in parent-teacher organizations" (Kerbow and Bernhardt 1993: 118). The 1999-2000 SASS survey collects more detailed data about parental involvement than is typically used in quantitative research on this topic. There are two batteries of

[27] In the case of one school where the student-teacher ratio was reported to be 745:1, I replaced this with the district student-teacher ratio.

questions measuring parental participation on the 1999-2000 SASS. The battery being used here concerns the participation rates for nine possible answer selections to the question: "Last school year (1998–1999), were the following means of facilitating parent participation in place at this school?" School officials could choose to indicate which of nine methods of parental involvement were present at their school: 1) Open house or back-to-school night, 2) Regularly scheduled school wide parent-teacher conferences, 3) Special subject-area events (e.g., science fair, concert), 4) Parent education workshops or courses, 5) Written contract between school and parent, 6) Parents as volunteers in the school, 7) Parents involved in instructional issues, 8) Parents involved in governance, and 9) Parents involved in budget decisions. If the element was present, the survey asked the school official to gage the level of parents' engagement with this element. The possible levels of participation were: Few, Less than half, About half, More than half, or Most.

One approach would be to allow for those variables that registered "Few" to receive a value of .20 which would account for whether a particular strategy for parental involvement existed at a school. But, a more strict transformation of the value so that only a critical mass of parental involvement would receive any credit (i.e. more than a few) was chosen. These levels of participation were transformed into the following percentages and then summed to produce a numerical parental involvement scale: "Few" was set to equal 0%; "Less than Half" was set to equal 25%; "About Half" was set to equal 50%; "More than Half" was set to equal 75%; and, "Most" was set to equal 100%. Parental Involvement has a possible low score of '0' in the case of schools where either none of the elements were present or few parents took advantage of them. Parental Involvement has a possible high score of '9' in the case of schools where all nine

elements were present and parents took full advantage of these opportunities to interact with the school. This scale is a normally distributed continuous variable which has been standardized to a mean of 0 and a standard deviation of 1.

One obvious problem with the measure of parental involvement in the school is the fact that most parents work and cannot be in attendance during the school day. Even if a parent could be at their child's school (e.g. non-working parent), there are many legal and organizational restrictions to non-school personnel's participation in the day-to-day operations of a school. Thus, this variable is recognized for the proxy effect it may represent for other forms of parent involvement in students' education. This may extend to communication with teachers, talking with their child at home about proper behavior in school or other types of socializing reinforcement related to schooling that may take place out of school.

School Security Measures and Violence Prevention Programs

School Security Measures

Concern over school violence has greatly increased the use of technological forms of security in the nation's schools. The SASS collects information on the presence of a number of common such measures. These include metal detectors, presence of security personnel, locker searches and video surveillance. A weak yet significant correlation between any of these measures with student violent behavior above .200 was considered appropriate for inclusion in this additive scale. (In this case, a positive correlation indicates that an increase in student disorderly conduct is associated with an increase in security measures.) Out of seven such variables, only four met these criteria. The security measures included in the scale were: use of metal detectors through which

students must pass each day; random metal detector checks on students; daily presence of police or security personnel; video surveillance. The two variables measuring the use of metal detectors were recoded into one variable with a '1' indicating that one or both of these two methods of metal detector use were present. This variable was then added to the other two dichotomous variables measuring whether or not daily presence of police or security personnel or video surveillance was present in a school. This index has a Pearson's correlation of .315 ($p<.001$) with Student Misconduct and .305 ($p<.001$) with Student Violent Behavior. On average, a U.S. public junior or senior high school has .78 security measures in place with a standard deviation of .85. As will be demonstrated in the next chapter, however, the number of schools with these security measures in place differs widely depending on geographic location or strata of state social capital.

Violence Prevention Programs

The second variable related to schools' discipline climate is the presence of a violence prevention program. As stated previously, this research attempts to add to the sparse but growing literature on the effectiveness of these programs with specific attention to school organizational and demograhic context. Thus, not only is the effect of violence prevention programs on student problem behaviors examined, but the organizational and demographic determinates of their presence is also presented. This variable is included as dichotomous variable where a '1' indicates that a violence prevention program is present at a school and a '0' if not.

In the service of full-disclosure, the following table presents a comparison of the mean values of the key variables between the original sample of junior and senior high schools and those that were dropped from the analysis. Due to the selection criteria, it is

not surprising to find that the schools that were excluded from the final sample present slightly different means on the key variables. The excluded schools have higher means

Table 4.8: Comparison of Means of Initial, Final and Excluded Samples

	All Junior and Senior High Schools		Excluded Schools		Final Sample	
Sample Size	3676		537		3139	
Student Violent Behavior	0.00	1.0	0.21	1.2	-0.04	.96
Student Misconduct	0.00	1.0	0.46	1.2	-0.08	.94
Teachers Authority over Discipline	0.00	1.0	-0.04	1.0	0.01	.99
Percent Minority Students	26.87	30.1	44.50	34.2	23.86	28.3
School Enrollment	888.6	654.7	1007.1	858.5	868.3	610.9
Student-Teacher Ratio	16.9	18.8	17.81	16.0	16.74	19.2
Percent City	22.2		46.2		18.1	
Percent Suburban	32.3		30.9		32.6	
Percent Town	20.6		11.4		22.2	
Percent Rural	24.9		11.5		27.1	

on both the student violent behavior and misconduct scales and have larger standard deviations. On the other hand, teachers in the excluded schools report only slightly lower rates of authority over discipline than those teachers who remained in the final dataset. The schools in the excluded sample are both larger and have higher percentages of minority students and are located more in city environments. This is most likely due to the fact that many of the schools were designated as court or detention schools. It should be reiterated that the goal of this research is to understand the protective nature of typical public junior and senior high schools, not schools which serve special populations where violence and disorder may be more typical. The differences in the mean values should be

expected based on these selection criteria. Because schools systems are rapidly developing alternative school settings for the most disruptive youth, understanding the institutional traits which protect against or contribute to student misconduct and violent behavior in traditional public schools is crucial. That is, identifying what is not working in traditional public schools may be more crucial than developing alternative programs for unruly youth. Thus, retention of only those schools which are considered "traditional" in the broadest sense is justified.

Research Hypothesis to be Tested

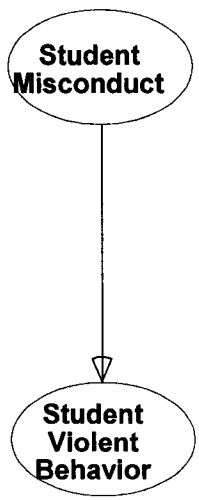
The following section presents the relationships among the study variables which are used to test the hypothesis. Analysis of these relationships using Structural Equation Modeling is presented in Chapter Six. For each hypothesis, the variable relationship(s) will be presented while controlling for other appropriate variables in the model. A diagram representing the hypothesis and the causal direction is then presented. At the conclusion of this section, the entire Structural Equation Model is presented including error terms and covariances. Before formal analysis of the hypothesis, however, descriptive and bivariate statistics concerning the study variables will be presented in the next chapter.

Hypothesis One: An increase in Student Misconduct results in an increase in Student Violent Behavior controlling for all other factors

This relationship as suggested by Wilson and Kelling's (1982) "broken windows" theory explores the degree to which an increase in student misconduct also leads to an increase in student violent behavior. In schools where teachers and administrators are

unable to curtail relatively minor infractions such as class cutting and tardiness, a disorderly atmosphere prevails. In such a disorderly atmosphere, moral cohesiveness and informal mechanisms of social control are thought to break down. Like broken windows in a building, this disorderly atmosphere contributes to "a greater willingness on the part of individuals to engage in further and more serious criminal behavior" (Arum 2004: 197). Anti-social and resistant peer groups can thrive in this disorderly space as suggested by Devine (1995). Figure 4.5 represents this relationship.[28]

Figure 4.5: Diagram of Hypothesis One



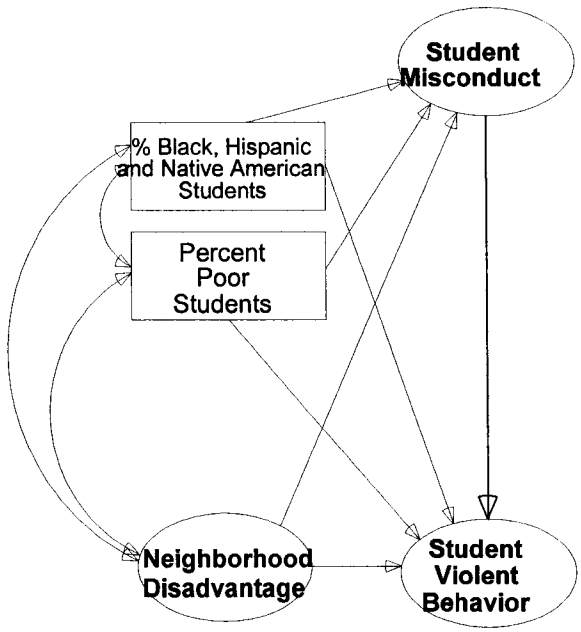
Hypothesis Two: The greater the percentage of minority and poor students and the higher the level of neighborhood disadvantage surrounding a school, the greater the level of student misconduct and violent behavior as reported by teachers.

This hypothesis grows out of resistance and criminological theories which point to the conflict often present in educating students from poor and minority backgrounds.

[28] As is the case in diagrams of Structural Equation Models, ellipses represent latent variables, square represent manifest variables and circles represent error terms.

These variables also stand as proxy measures for the deleterious effects that disadvantage has on families (e.g. single parent homes, lack of stable housing) which may contribute to students' disruptive behavior in schools. It is expected that these two variables will be highly correlated with each other as well as being strongly correlated with the measures of neighborhood disadvantage. Thus, appropriate covariances are indicated. These relationships are presented in Figure 4.6.

Figure 4.6: Diagram of Hypothesis Two

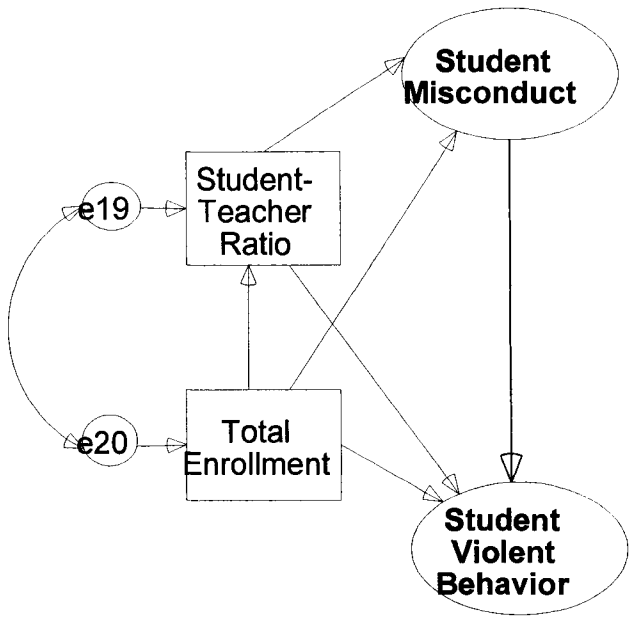


Hypothesis Three: Total school enrollment and student teacher ratio are positively related to the level of student misconduct and violent behavior in a school. In addition, an increase in school size results in an increase in student-teacher ratio.

Drawing on school effects and climate research, it is necessary to control for the influence of total school enrollment and student-teacher ratio on these two outcome variables to isolate the independent effect of the variables of interest. This hypothesis

also tests the influence that total school enrollment has on student-teacher ratio due to the effects that economy of scale introduces with larger schools mentioned previously. Also, the error variances of total school enrollment and student-teacher ratio are allowed to covary in the model due to the likelihood that error in measurement of these two highly

Figure 4.7: Diagram of Hypothesis Three



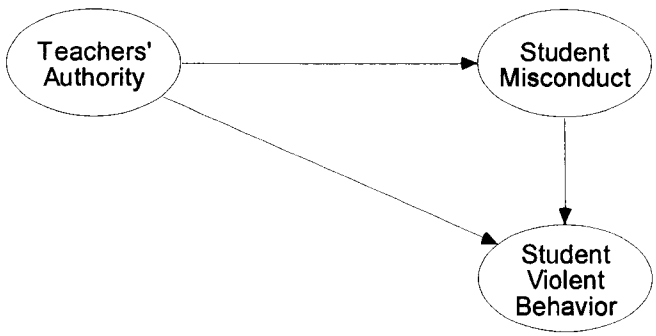
correlated variables are associated with each other. This hypothesis is pictured in Figure 4.7.

Hypothesis Four: An increase in Teachers' Authority to Discipline results in a decrease in Student Misconduct and Violent Behavior controlling for all other factor

This hypothesis is derived from theories of organizational control (Ingersoll 1996; 2003) and communal school organization theory (Bryk and Driscoll 1988). It is hypothesized that the aggregate level of Teachers' Authority to Discipline in a school will have independent and negative effects on these student behaviors controlling for

other school organizational variables and student demographic variables. While not shown, this research also examines the impact that the school demographic variables (e.g. percentage of minority students, percentage of students receiving free lunch, level of neighborhood disadvantage in a schools' neighborhood) has a teachers' authority to discipline. Figure 4.8 presents a diagram of the relationships comprising this hypothesis.

Figure 4.8: Diagram of Hypothesis Four



Hypothesis Five: The number of security measures in a school and the presence of a violence prevention program results in a decrease in the level of and student violent behavior.

The efficacy of school security efforts and violence prevention programs in reducing student problem behaviors is of concern of all of those involved in public education. While results have been mixed as to quality of implementation and the efficacy of these efforts (Gottfredson et al. 2000; Wilson et al. 2003), the SASS data provides a comprehensive nationally representative window on the use of these programs. The principle relationships between school security measures, violence prevention programs and the two student behavioral outcomes are presented in Figure 4.9.

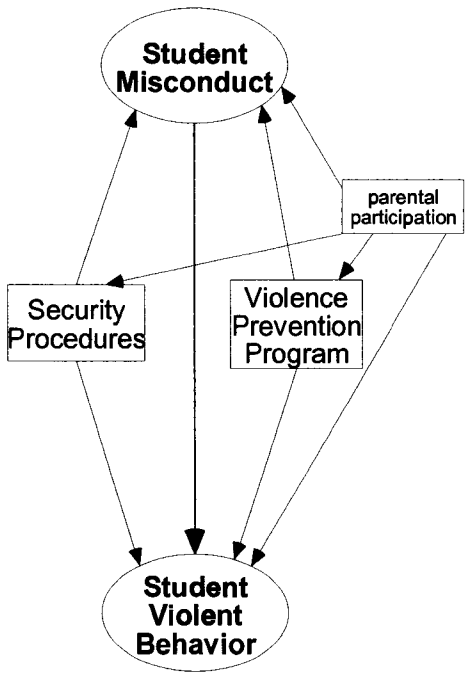
As school context is considered an important factor in the implementation of security measures, this research will examine the effect that school size, student-teacher ratio and school and neighborhood demographics have on both school security methods and violence prevention programs (not shown). Schools that have higher enrollments and student-teacher ratios, are in disadvantaged neighborhoods and/or have a critical mass of lower SES students may rely on more formal and technical methods of discipline. Further, this research tests Devine's (1996) abdication of responsibility thesis that an increase in the level of school security measures reduces the level of teachers' authority to discipline (also not shown).

Hypothesis Six: An increase in parental involvement at school results in:

A) a decrease in student misconduct and violent behavior,
B) an increase in Teachers' Discipline Authority, and
C) an increase in the number of security measures and the likelihood that a violence prevention program is in place.

This first part of this hypothesis draws on the literature which finds that when parents are more involved in their children's' schools, the better behaved their children are (Coleman and Hoffer 1987). Because parental involvement has been shown to be highly variable according to school demographics, paths are drawn from the percentage of minority students, percentage of students on free or reduced priced lunch and the latent factor measuring neighborhood disadvantage to the parental involvement measure (these relationships can be found in Figure 4.10). Part 'B' examines how increased parental engagement at school may increased the extent of teachers' authority over discipline as

Figure 4.9: Diagram of Hypothesis Five and Six



per theories of communal school organization (Bryk and Driscoll 1988) and intergenerational closure (Coleman 1987). Part 'C' of hypothesis five examines Hess and Leal's (2003) finding that school districts that have more motivated parents in less urban areas have more security methods.[29] They argue that districts that serve more well off constituents have more funds for such measures and they respond more readily to constituent concerns regarding school safety. Urban districts might have higher rates of violence in their schools, but due to the 'ossification' of their administration they are less responsive to constituent concerns regarding school safety. While the unit of analysis here is the school, their findings suggest that it is pertinent to examine whether parental

[29] They measure the extent of school security as an index of seven dichotomous variables which record the presence of the following in their school district sample: locker searches; use of drug-detecting dogs; closed-circuit television; closed campus during lunchtime; dress codes; metal detectors; and expulsions (531). The mean for their sample was 4.41measures per district surveyed.

involvement has an indirect effect on student problem behaviors through increased measures of security and safety.

Full Structural Equation Model

Presented in Figure 4.10 is the full Structural Equation Model used to test these seven research hypotheses. The differences in standardized path weights will be compared across the sixteen subsamples. Each path between observed endogenous variables and the three endogenous latent factors is set to one. In addition, relationships not expressed specifically in the hypothesis, but represented in the diagram, will be detailed in the analysis. The following chapter presents descriptive analysis of the variables used in this study with particular emphasis on understanding school disorder nationally.

Hierarchical Linear Modeling vs. Structural Equation Modeling

There is a good deal of concern in contemporary quantitative social science – particularly education research – regarding the most appropriate statistical procedure to use with data that has a multileveled structure. The SASS has sufficient data to create two-leveled models of teachers nested within schools.30 As indicated in Chapter Three, very few studies have used two and three level datasets and hierarchical linear models to predict school disorder (Welsch et al. 1999). Despite the potential benefits of utilizing hierarchical linear modeling to examine the multileveled relationship between school organizational qualities and student behavior outcomes using the SASS data, this research uses Structural Equation Modeling for several reasons. First, four variables of interest in

[30] Though there is also school district data, due to the relatively low number of schools sampled within individual school districts, and without data from students within schools, there is only the potential of creating a two level-nested dataset of teachers within schools (cf. Ingersoll 2003).

this study are considered latent factors. Structural Equation Modeling not only accounts for the error associated with each of the manifest indicators of a factor, but also provides an error term for the factor as well. Thus, the estimates of variable relationships are argued to be more accurate than in linear regression.31

Second, a central concern in this research is to account for the indirect effect that school and neighborhood demographics have on student problem behaviors. This is in part driven by research which finds that poor and minority students found in high concentrations in urban schools often attend schools which lack adequate resources (Kozol 1992; Burtless 1996; Wenglinsky 1997; Condron and Roscigno 2003), well-qualified teaching staff (Darling-Hammond and Post 2000), and the types of community support which matter to school functioning (Coleman and Hoffer 1987). When compared to their suburban counterparts, therefore, many urban schools function at a double disadvantage. Not only does their clientele have a set of life issues which often make it difficult for them to be successful in school, but the schools they attend are not as prepared to handle their increased needs.

An example of explicating the potential indirect effect of student demographics on student problem behaviors is contained in the following research question: In that schools with higher percentages of disadvantaged students have been shown to be larger and have higher student-teacher ratios, what indirect effect does school level

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[31] In an analysis using the SASS data in a Hierarchical Linear Model, Ingersoll (2003) found that two factor composites comprised of Likert scale variables, Collegiality and Teacher Decision-Making Control, were so highly correlated that they couldn't be included in the same linear model. This is the problem of research that uses "bounded" data from such measures as Likert scale questions. The variability of Likert scale measures in a bounded survey tend to be related regardless of the concepts being measured. I suggest that if the error associated with each of the Likert scale measures comprising Ingersoll's factors could be accounted for, these variables could potentially be retained in the same model as factors. Unfortunately, multivariate linear regression is unable to do this.

disadvantage have on student problem behaviors vis-à-vis these two organizational variables? Because SEM is, in effect, path analysis, this research is able to examine the mediated influence of these independent variables (e.g. student race and class) on the outcome variables (e.g. student misconduct and violent behavior) vis-à-vis their impact on school organizational qualities.

Further, SEM can specify relationships between independent variables. Thus, this procedure can control for spurious relationships which may exist between any two variables by examining the independent effects of mediating variables. In the case of this research, one might argue that the relationship between teachers' authority to discipline and student problem behaviors might be spurious – that other variables like the aggregate student demographics, neighborhood quality or school enrollment actually explain the relationship between these variables. Thus, increased teachers' authority and lower student problem behaviors in schools with higher aggregate socioeconomic status may both be a function of SES. It could then be argued that increased levels of teachers' authority to discipline do not lead directly to lowered problem behaviors, but that it is actually class which determines this dynamic. SEM is utilized here to account for just this possibility protecting against spuriousness between independent variables. The relationship between Teachers' Authority and other independent variables can be controlled for using SEM. While mediated relationships between variables can be approximated in linear regression by the use of interaction terms, the introduction of multiple interaction terms in linear equations often reduces the power of the equation, thus lowering the R-Square value. And, interaction terms are often difficult to interpret.

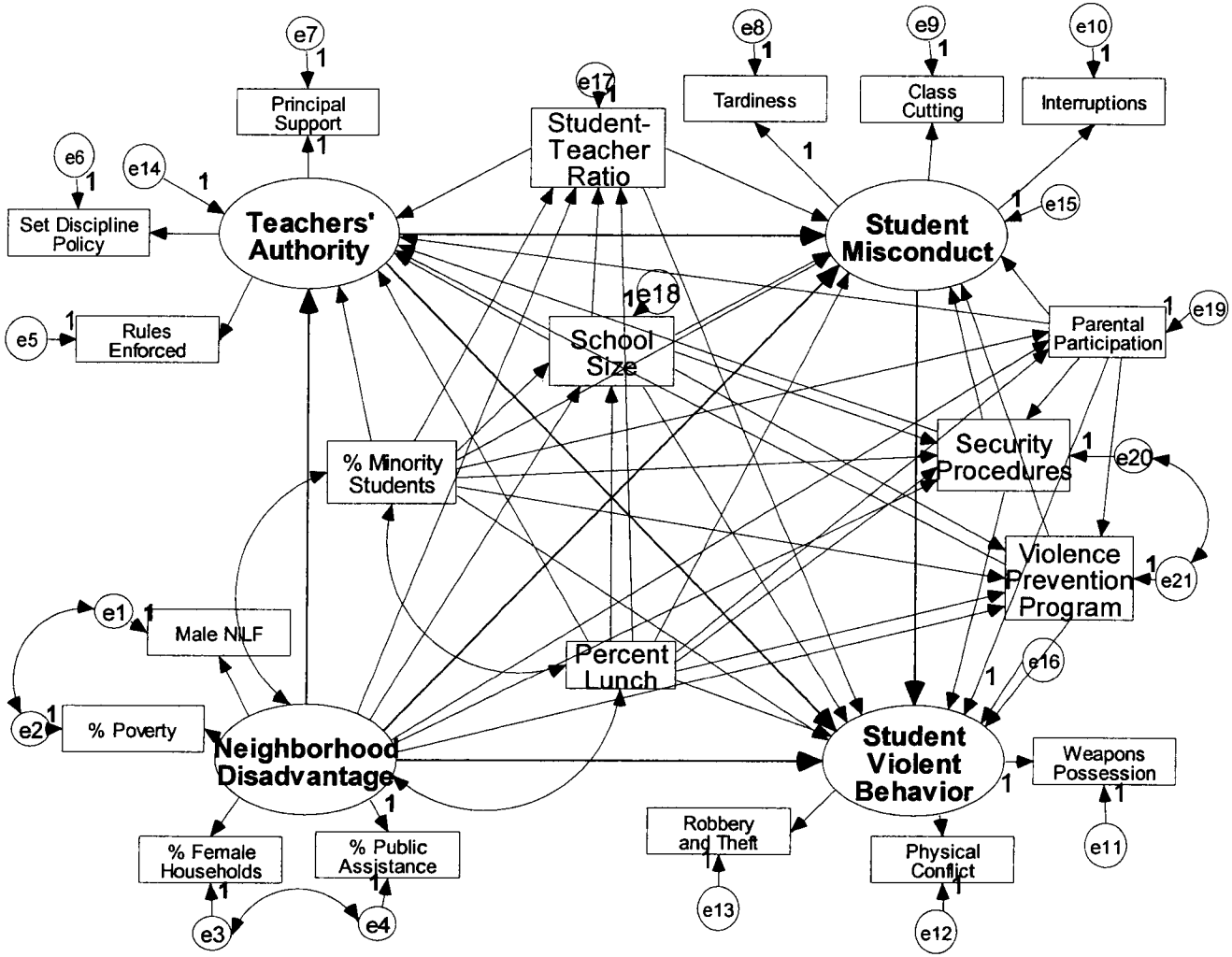


Figure 4.10: Diagram of Full Structural Equation Model

Because of the multifaceted and highly interrelated nature of school organization, the use of a statistical procedure that can handle mediated effects is warranted.

Regarding the Use of Aggregated Data

A final consideration about the relative benefits of using SEM over Hierarchical Linear Modeling lies with the use of aggregated data. Because the unit of analysis in this research is schools and not individuals, data regarding the principle variables of interest – teachers' perceptions about the level of student misconduct and violent behavior and the degree to which the discipline climate is communal – are aggregated across teachers at the school level. There is growing concern in the literature, however, about the validity of aggregating data from level-1 units (i.e. individuals) to level-2 units (i.e. schools or neighborhoods). Some researchers suggest that aggregation hides important variation across the individuals surveyed (Welsh et al. 1999). Thus, teacher characteristics such as demographics, training, grades taught or subject area may explain a good deal of their perceptions of and experiences with student misconduct and violence. Aggregation has also been faulted for obscuring the effect of "micro climates that arise because of structural and social differentiation within schools" (Rowan et al. 1991: 245). Micro climates that arise out of such organizational divisions as departments, tracks or collegial networks may heavily influence teachers experiences of their students' behavior. It could be argued that Hierarchical Linear Modeling is better able to control for the variance within schools to better isolate the variation across schools in attempts to identify to what degree and how schools matter in the outcome variables.

The use of individual level data aggregated to a higher unit such as children within families or teachers within schools, however, has a long history in educational research. In a multilevel analysis of school climate, Rowan, Raudenbush and Kang (1991) examine the differences in the reliability of within-school and between-school variance of perceptual measures about school climate drawn from a sample of teachers. They find that a much larger proportion of variance in the perceptual measures lies within schools when compared to between schools. While they find that "the reliabilities for the estimated school-level means are lower than the corresponding reliabilities estimated at the individual level by Chronbach's alpha," these reliabilities do not differ "by a large amount" (255). They conclude that despite the relative size of within- vs. between-school variance, "organizational design features of schools can be reliably measured at both the individual and aggregate levels of analysis" (255).

Further, the methodological concerns about the power differential in within vs. across unit statistical analysis is not without its critics. Liska (1990) argues that the relative weakness of contextual variables in explaining the variance in micro-level dependent variables (i.e. school size effects on student behavior) is not as important as the theoretical purposes of aggregating individual level attributes. Aggregates of individual-level characteristics for which there are no appropriate macro-level indicators as in the common case of student-level SES aggregated to the school level (cf. Coleman 1986), "have many of the characteristics of structural and global properties that make them meaningful properties of social units" (Liska 1990: 296). Aggregates, therefore, "frequently reflect the social organization of social units" and typically embody a

"pattern of variation across social units" (296).[32] Identifying patterns across a wide swath of social life is the stuff out of which sociology is made. Therefore, there is reason to believe that the variation between macro level units (in this case schools in urban, suburban, town and rural areas in states of lowest, low, high and highest social capital) is more important than how much variation in the outcome variables is explained across units as opposed to within units. The purported lack of between unit variance when compared to within unit variance is supplanted by the macro theoretical aims of research.

In the case of teacher's perceptions of the level of institutional support for their research or the level of student misconduct and violent behavior, Liska's position would suggest that it is not crucial to explain how this varies between teachers within a school if the end goal is testing a building macro level theories about the prevalence (or lack) of these properties. While contextual variables such as school size, student-teacher ratio or neighborhood composition are not as important as individual-level characteristics for explaining individual behavior, attributes or accomplishments, "they are critical in linking theory across micro and macro levels of analysis" (299). Further, the focus here is on school and neighborhood correlates of student misconduct and violent behavior as compared across states' quartiles of social capital. This is suitable in the case of this study because the focus is on how the relationships between the study variables vary across the different subsamples, not across individuals within schools. The focus here is on schools as functional units, not on individual characteristics. Research has well established the relationship of individual student characteristics on achievement and

[32] However, when the ratio of between-unit to within-unit variance approaches zero, Liska argues that the difference should be considered "sampling or measurement error" (296). It is, therefore, important to determine whether the differences in the variables of interest across the 16 subsamples constitute statistically viable differences. This topic will be taken up in the following chapter.

behavior, but has not as well explicated the role of more macro-level forces such as neighborhood disadvantage and social capital on the school environment. Some of the detail that might be garnered in using a multileveled statistical analysis of this topic may be lost in favor of the detail that can be provided by using aggregated data analyzed with Structural Equation Models. This research attempts to address this shortcoming in the literature. The statistical viability of aggregating teacher perceptions to the school level along with the benefits of modeling mediated effects make the use of Structural Equation Modeling preferable to Hierarchical Linear Modeling in this particular study. Ultimately, the ideal statistical procedure would be able to explore the mediated multi-leveled effects of independent variables, both latent and manifest.

CHAPTER FIVE
SCHOOL DISORDER AND SAFETY MEASURES IN NATIONAL PERSPECTIVE

This chapter presents a series of analyses using the 1999-2000 SASS data on national patterns in student violent behavior and student misconduct as well as safety measures to address these. The goals of all but the final analyses are quite broad and, therefore, will use weighted data from a combined sample of junior, senior and combined junior/senior high schools. The first analysis explores how student violence, student misconduct and schools' neighborhood disadvantage relate to wider measures of societal well-being. This data will be aggregated to the state level.[33] The second analysis identifies schools which may be considered "disorderly" using a typology constructed from the crosstabulation of Likert category scores on the student misconduct and violent behavior scales. Once "disorderly" and "orderly" schools are identified, the differences in organizational and demographic conditions will be compared. Comparing the differences in demographic and organizational composition of these two types of schools offers a unique descriptive window on to the problem of school disorder in the U.S. The third analysis compares the rates of school security efforts in both junior and senior high schools according to geographic location and social capital quartile.

The final analysis, a description of the differences in the student violent behavior variable across these sixteen study subsamples, is narrower in focus and will use unweighted data from only those junior and senior high schools that are retained for the multivariate analysis in the following chapter. This serves two purposes. The first purpose is to further examine how the distribution of student violent behavior varies quite

[33] The combined junior/senior high schools used here meet the criteria described in the previous chapter by which junior and senior high schools were selected for the final samples.

greatly depending on geographic location or social capital "region" using the final unweighted sample of junior and senior high schools. Second, a detailed presentation of the means will aid in the interpretation of the results of the structural equation models. Unlike regression equations, SEM models do not provide starting values (i.e. the intercept of a regression line). Thus, assessment of the means of the final unweighted sample is important for understanding the relative effect of variable relationships across the subsamples.

The Relationship of Student Behavior and School Organization to Wider Social Forces

To what degree do schools in their day-to-day operation act as a buffer against the wider social conditions that produce violence in our society? In attempts to gauge this, this section presents an analysis of how the measures of Student Violent Behavior, Student Misconduct and Teachers' Authority to Discipline derived from the SASS dataset along with schools' Neighborhood Disadvantage relate to two data sources understood to be good indicators of societal well-being. These two data sources are the FBI's Uniform Crime Report (UCR) and state's levels of social capital as computed by Putnam (2000). These two data sources will be described as well as the rationale for introducing them into the analysis. An analysis of Pearson's correlations between these variables concludes this section as they explicate the connection between student behaviors, school functioning and wider societal forces. State level aggregates are used in this analysis.[34]

[34] This is accomplished by summing school level values on each of these key variables across all schools in a state and dividing by the number of schools present.

States' Levels of Violent Crime

The first analysis involves the FBI's Uniform Crime Report (UCR). The UCR is "a nationwide, cooperative statistical effort of nearly 17,000 city, county, and state law enforcement agencies voluntarily reporting data on crimes brought to their attention" (Federal Bureau of Investigation 2000:1). Established in 1929, its original purpose was to give Federal, state and local law enforcement agencies standardized and reliable data on the levels of violent and property crimes. Because state criminal codes differ, the UCR provides "standardized offense definitions" which law enforcement agencies use in calculating and reporting violent and property crimes (1). The UCR has become "one of the country's leading social indicators" used not only by criminal justice practitioners, but also "legislators, public planners and academic researchers interested in crime" (1). The UCR rate represents the total number of crimes in each state per 100,000 persons. The crimes that make up the violent crime index include murder, forcible rape, robbery, and aggravated assault. Data for each state for the year 2000, the year of the SASS data being used for this research, were retrieved from the FBI's website (Federal Bureau of Investigation 2000).

States' Levels of Social Capital

The second data source is Putnam's social capital index. While the concept of social capital has a long and venerable history, the development of macro level indicators for use in research is relatively new (Rosenfeld et al. 2001: 283). The data from Putnam's social capital index was retrieved from his website (Putnam 2000[2]). It comprises a variety of data sources and measures of social engagement over roughly a

quarter century, from about 1974 to 1999.[35] Putnam defines social capital as the "features of social organizations, such as networks, norms, and trust that facilitate action and cooperation for mutual benefit" (1993: 35). Social capital is distinctly different from other forms of capital focused on by social scientists such as economic, human and cultural capital. While each of these is potentially related to each other, social capital is the *social* manifestations of the connections between people to accomplish societal goals. It is "embodied in the relations among people" (Coleman as cited in Rosenfeld et al. 2000: 284). Putnam (2000) finds that social capital is more important than urbanicity, poverty and parental education for determining indicators of quality of life such as rates of violence and ill-health. He also found that states with lower aggregate social capital such as those in the West and Southeast as well as highly urbanized states in the northeast such as New York, had higher murder rates than those with higher levels of social capital (Putnam 2000: 309). Concomitantly, violent crime is rarer in states with higher levels of social capital.

Rationale for Bivariate Analysis

Examining the bivariate relationships between states' levels of violent crime as reported on the UCR with the student behavioral measures, the level of teachers' authority and schools' neighborhood disadvantage has several theoretical purposes. First, if official statistics on crime are statistically correlated with the student behavioral measures, this might suggest that they are valid and reliable measures at least at the state level. The measures commonly used in school disorder research such as student self-reports, school disciplinary logs and statistics on school crime kept by local law

[35] Because the social capital measures do not correspond exactly to the year of the SASS and UCR data, the correlations between them and other measures should be interpreted with some caution.

enforcement agencies have been shown to pose problems in terms of reliability and validity as detailed previously. This research uses teacher reports of student behavior, a source of data which has rarely been analyzed in school disorder research. If teachers' reports about student behavior are statistically correlated with the crime and social capital indices, this might suggest that teachers are valid informants about the level of violence in schools – at least at the zero-order level. This may also suggest that schools are not insulated from the wider social forces that contribute to student unruliness and violent behavior.

Second, if the measure of student violence relates more strongly to these data sources than the measure of student misconduct, this could lend support to the notion that these are distinctly different student behavior types. Specifically, if the misconduct scale does not relate to the FBI violent crime index or Putnam's social capital index, then it can be argued that this scale's variability is shaped by meso-level institutional factors such as schools' demographics and organization. This research assumes that student misconduct is more preventable in schools than violence. Because these measures are generated from a school survey, any school-centric variable (i.e. student misconduct, violent behavior or teachers' authority) may be "hidden," statistically speaking, from the effect of wider societal forces. Examining how these variables correlate with these wider societal measures can test for this possibility.

A third purpose is to assess the extent to which societal measures of violence and social capital also relate to teachers' discipline over authority. It makes theoretical sense to do so insofar as this composite, as measured by highly localized institutional conditions such as whether or not administrators back teachers up or teachers coordinate

their efforts to discipline students, may be shaped by school traits that may affect trust, cooperation and consensus. As discussed previously, formal and informal forms of authority are weakened in the face of social disorganization. Thus, a negative relationship between wider anti-social behavior and cooperation in schools regarding discipline is expected. Further, if teachers' authority is positively correlated with states' level of social capital, this may lessen the degree to which institutional conditions are important for determining this valuable source of influence over students' behavior. It might be the case that wider social forces are more important for the social dynamics of schools, in general, than their particular institutional configurations. Similarly, if schools' level of teachers' authority is negatively correlated with a states' UCR violent crime index, this may suggest that this variable is additionally determined by wider societal forces, ones which overwhelm the protective abilities of schools as institutions.

Analysis of State-Level Relationships

Pearson's correlations of the study variables from the sample of junior and senior high schools with the UCR and social capital indexes are presented in Table 5.1. Reproducing the strong bivariate relationship between social capital and violence established previously by Putnam (2000) and Rosenfeld (2001), the index of social capital correlates significantly with the state level UCR violent crime index (-.513, $p<.01$). The Pearson's correlation between the social capital index and the school violence index for all junior and senior high schools used in this research is somewhat stronger (-.598, $p <.01$). This indicates that school violence as measured by the variables on the SASS has a relationship of similar intensity and significance to social capital as it does to states' level of violent crime measured by the UCR. This not only establishes the

fact that the SASS is a valuable measure of student violent behavior in schools, but also that schools are not as protective against the influence of wider social forces on students' behavior as one might hope. The very strong and significant correlation between the state-level UCR violent crime index and the Student Violent Behavior index (.697, p

Table 5.1: Pearson's Correlations of State Level Aggregates of Selected Study Variables

		A	B	C	D	E	F
Social Capital	**A**	--					
Uniform Crime Report Index	**B**	-.513**	--				
Neighborhood Disadvantage (log)	**C**	-.582**	.428**	--			
Student Violent Behavior	**D**	-.598**	.697**	.328*	--		
Student Misconduct	**E**	-.173	.695**	.095	.721**	--	
Teachers' Authority	**F**	.199	-.473**	.082	-.383**	-.490**	--
Parental Involvement	**G**	.467**	-.009	-.423**	-.078	.255	-.078

<.01) confirms this latter fact. This suggests, again, that student violent behavior as measured by the SASS is not only statically associated with a well established crime statistic; it also associates in such a manner to suggest that at least at the state level, student violent behavior in junior and senior public schools is tied to the same societal process which generates wider serious violent crime.

The correlation between Student Misconduct and the FBI violent crime index is also strong and statistically significant (.695, p<.01). In fact, this is as strong as the relationship between Student Violent Behavior and the UCR index. This partially undermines the hypothesis that student misconduct such as class cutting and tardiness is

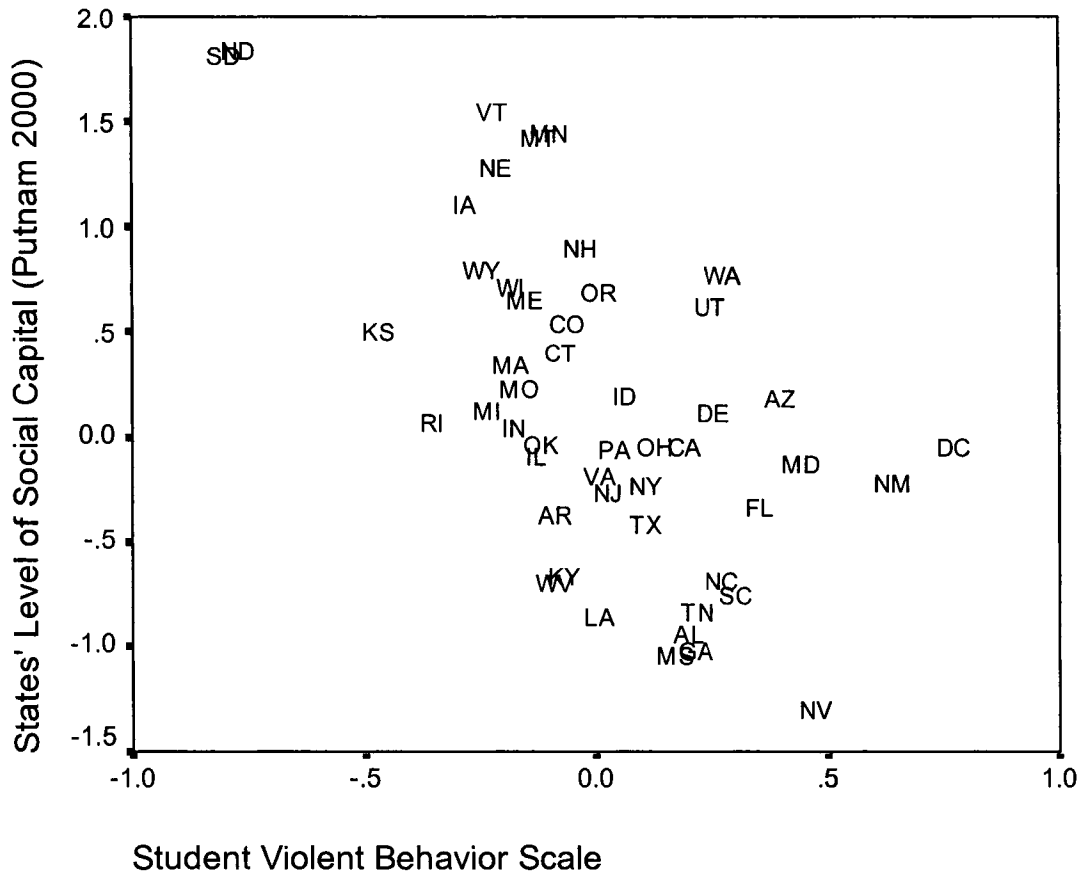
more influenced by organizational variables such as school size and student-teacher ratio than by the wider forces which contribute to violence. Here, as reported elsewhere in this research, Student Misconduct and Student Violent Behavior are highly correlated (.721, $p<.01$). Several questions posed by this research, however, bear repeating here as they involve variables that may at least partially mediate the relationship between these two dependent variables. First: To what extent do student violent behavior and misconduct operate together, or to what extent are they distinct social phenomena? Second: do school organizational elements such as school size, student-teacher ratio, teachers' discipline authority and parental involvement have different relationships to these two behavioral variables? That these two items are highly correlated and correlate in a similar fashion with violent crime suggests that there is one underlying disorder variable. However, to answer this second research question, the multivariate statistical analysis will maintain these as two separate variables. As was detailed in the chapter on the methods employed here, there is also statistical justification for maintaining two separate factors.

States' aggregate level of Teachers' Authority as measured by the three variables on the SASS survey is negatively related to the UCR violent crime index (-.473, $p<.01$). Thus, an increase in violent crime in a state is associated with almost half a standard deviation decrease in the level of teachers' authority to discipline (and vice versa). In other words, in states where there is more violent victimization, teachers also have less institutional support for discipline, and, concomitantly, less moral authority. Thus, the institutional functioning of schools, like student behaviors, is sensitive to wider social and cultural forces. This point will be revisited in the conclusion where I discuss the well-

established limitations of educational policy aimed at addressing student academic failure, and by extension, student behavior.

Figure 5.1 plots states according to the correlation between their score on the Student Violent Behavior scale and their level of social capital. This presents in graphical format the strong negative relationship that social capital in a state has to student violent behavior. As the level of states' social capital increases, the aggregate

Figure 5.1: Relationship of Social Capital to Student Violent Behavior in Combined Junior/Senior High Sample by State



level of student violence decreases. According to the Pearson's correlations, however, social capital does not correlate with student misconduct. This is puzzling because if

social capital influences the level of crime and student violent behavior, and both violent crime and student violence rates are associated with student misconduct, we would expect that social capital would also have something to do with student misconduct. Again, an assumption being made here is that student misconduct, as opposed to violent behavior, should be seen more as a school organizational phenomenon. Teachers and administrators are more likely to control students' tardiness, class cutting or interruptions than their violent behavior. That the misconduct scale does not correlate with the social capital index but does correlate with FBI violent crime index suggests some disconnect. This provides further evidence that the sources of misconduct are mediated by school-level variables. In this case, I suggest that school characteristics such as size of enrollment and student-teacher ratio may affect these two student behavioral measures differently. If this proves to be the case, allowing the six student behavior indicators to load on separate scales is not only theoretically valid, but statistically valid as well. If this is not the case, then aggregate student misconduct may have more to do with student violent activity than was originally theorized.

Summary and Implications for Multivariate Analysis

While untangling the casual relationships between social capital, violent crime, neighborhood disadvantage and student behavior at the state level would involve more complex statistical procedures, there clearly are significant relationships between these two external measures of violent crime and social capital and the three variables of interest related to this study. States' level of social disorganization as measured here by the neighborhood disadvantage scale is associated with lower levels of social capital, and higher rates of violence, both in and out of schools. While a direct relationship between

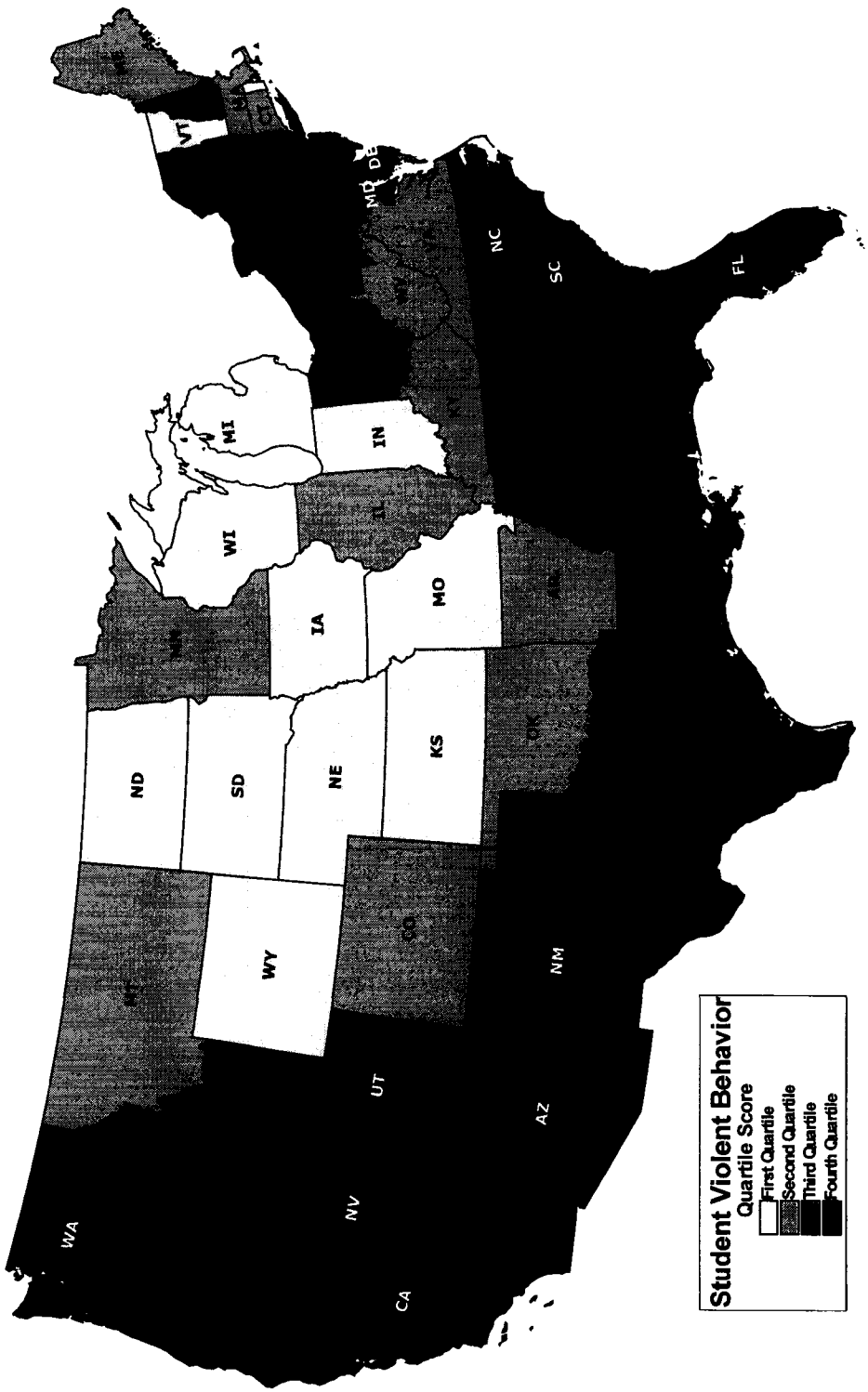
Teachers' Authority and social capital was not observed, the negative relationship that this variable has to the UCR Violent Crime rate suggests some mediated relationship. States with higher levels of social disorganization have lower rates of social capital and higher levels of violence. It follows that moral authorities such as police, parents and teachers in states with low levels of social capital may be less efficacious.[36]

Distribution of Student Violent Behavior Across States

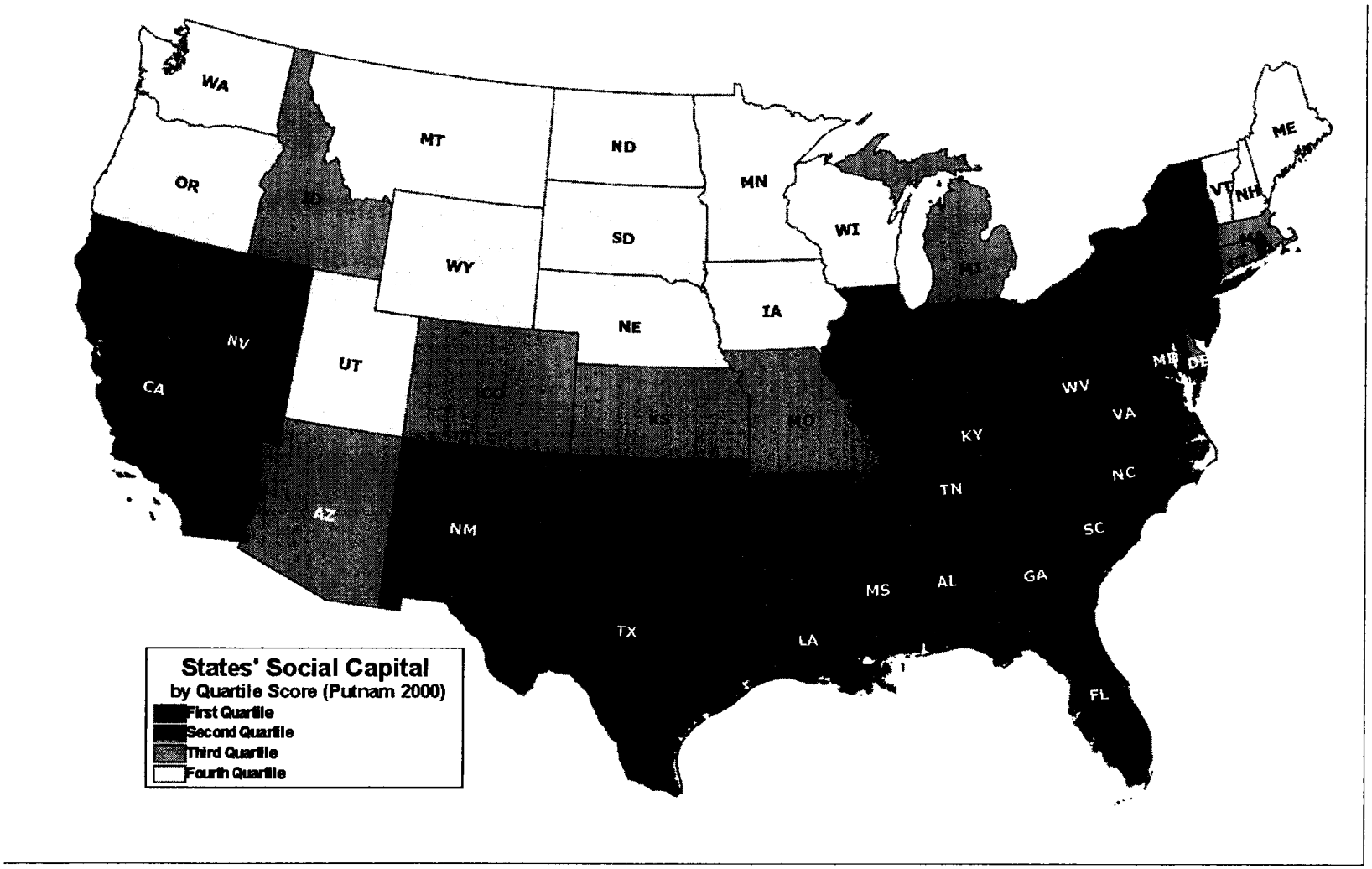
With the validity of the SASS student behavioral measures having been established, another benefit of this truly nationally representative data is to demonstrate how states compare to each other in terms of student violent behavior. Map 5.1 on the following page displays a map of the U.S. states according to their quartile score on the student violent behavior scales.[37] States where teachers report more student violent behavior are shaded darker. This map makes clear that there are pronounced regional trends in terms of the level of student violent behavior. States in the Midwest (states with the highest levels of social capital) fall into the lowest quartile of the student violent behavior scale. States in the South and West and some of the more highly urbanized states in the Northeast such as Maryland and Delaware fall into the highest quartile of this scale. This graphical presentation of states according to their level

[36] This analysis provides the theoretical justification for organizing the schools in the sample according to quartiles of states' social capital in the Structural Equation models.

[37] Because the student misconduct scale did not have any relationship to the social capital scale, a map of states according to their quartile distribution is not included here.



Map 5.1: Distribution of States by Student Violent Behavior



Map 5.2: Distribution of States by Social Capital

of student violent behavior is close to the inverse graphically to their quartile distribution on the social capital scale presented in Map 5.2. States with higher levels of student violent behavior (represented by darker shading) have lower social capital (also represented by darker shading). I will now turn from this national perspective to more detailed analysis of the number and distribution of schools classified as orderly or disorderly and their characteristics in terms of location and prevalence of school safety measures.

Towards A Classification of a "Disorderly School"

An analysis of the differences between disorderly and orderly schools may help identify the organizational and demographic conditions that precipitate school disorder. Arriving at a way of classifying schools as disorderly, however, is not easy. There has been little effort by experts on school crime to define the category of a disorderly school. A school that reports several serious incidents of violence to police might not necessarily be a disorderly school. The SASS offers an opportunity to address this question in school disorder research by recoding the continuously distributed misconduct and violent behavior scales into Likert scale categories which approximate their original values. This more conservative recoding of these two continuous variables is chosen over quartile scores (as done above at the state level), with the goal of better approximating teachers' original responses at the school level. Table 5.2 below crosstabulates schools where student misconduct and violent behavior are 'Not a Problem,' 'Somewhat of a Problem,' 'A Moderate Problem,' and 'A Serious Problem.' This table suggests that, fortunately, most teachers report that their schools are relatively violence free. As measured here, only 2.6% of all schools have a serious student violence problem as reported by teachers.

About 15% have a moderate violence level. About 21% of all schools have a moderate to serious problems with student misconduct.[38] This distribution may reinforce the Gottfredsons' conclusion in their analysis of the NIE (1978) Safe School Study data that "[w]e have chronic problems of discipline in some schools – not an acute national crisis" (182). As will be discussed, however, there may be reason to support the notion that disorder has increased slightly and is not only the providence of urban schools.

Table 5.2: Towards a Definition of a Disorderly School

			Level of Student Violent Behavior				
			Not A Problem	A Little Problem	A Moderate Problem	A Serious Problem	Total
Level of Student Misconduct	A Serious Problem	Count	8.0	159	390	224	781
		% Misconduct	1.0	20.4	49.9	28.7	100
		% Violence	0.1	1.2	10.2	34.4	3.1
		% of Total	0.0	0.6	1.6	0.9	3.1
	A Moderate Problem	Count	233	2316	1682	285	4516
		% Misconduct	5.2	51.3	37.2	6.3	100
		% Violence	3.5	16.9	43.9	43.7	18.2
		% of Total	0.9	9.3	6.8	1.1	18.2
	A Little Problem	Count	2411	8533	1667	136	12747
		% Misconduct	18.9	66.9	13.1	1.1	100
		% Violence	36.0	62.3	43.5	20.9	51.2
		% of Total	9.7	34.3	6.7	0.5	51.2
	Not A Problem	Count	4038	2697	95.0	7.0	6837
		% Misconduct	59.1	39.4	1.4	0.1	100
		% Violence	60.4	19.7	2.5	1.1	27.5
		% of Total	16.2	10.8	0.4	0.0	27.5
	Total	Count	6690	13705	3834	652	24881
		% Misconduct	26.9	55.1	15.4	2.6	100
		% of Total	26.9	55.1	15.4	2.6	100

The crosstabulation of the recoded values of the student misconduct and violent behavior scales can then be used to develop a typology of disorderly schools. This raises some questions. Which of these answer categories can be combined to approximate a

[38] Weighted and unweighted percentages and count estimates are presented here. A comparison of unweighted to weighted data reveals at most a two-percentage point difference.

definition of "disorderly school"?[39] Two potential components are available – student misconduct and violent behavior – but how do they relate to form a category that can be defined as a disorderly school? Should all schools which have a high degree of student misbehavior automatically qualify as disorderly? Or, is the presence of a certain degree of student violent behavior also necessary?

The first criterion used here is that any school which has a serious problem with violence and/or misconduct qualifies as a disorderly school. The second criterion used here is that any school that has a moderate problem with violence *and* misconduct is selected. Schools that meet these criteria are shaded gray in Table 5.2. When these two criteria are used to identify schools as disorderly, about 12 percent of the sample of schools meets these criteria. Thus, the vast majority of schools in the U.S. are classified as orderly and relatively violence free according to this schema.

Having generated a method of identifying schools as disorderly, Table 5.3 presents the percentages of schools classified as disorderly, disaggregated by geographic categories and levels of social capital using weighted data. This table makes apparent that there is a strong linear relationship between school locale and whether or not a school is classified as disorderly according to this schema. Thirty percent (30.0) of city schools in the sample can be considered disorderly. About a third as many (10.9) suburban schools are selected into this category as city schools. Town schools have the least likelihood of being classified as disorderly. Six percent (6.1) of town schools are classified as disorderly here. This is an odd finding in that town schools are found to

[39] This question naturally sets aside other issues which might make a school disorderly (e.g. high staff turnover, organizational restructuring, lack of program cohesion or lack of resources). These issues cannot be addressed with the data at hand and suggestions for broadening the definition and measures of school disorder will be addressed in the conclusion.

have a violence level which is second to city schools. What this may suggest is that the violence level in the worst town schools is disproportionately high when compared to their counterparts in other areas. Disaggregating the percentages by quartile of social capital reveals that "Low" social capital is the modal category at fourteen percent. Thus, fourteen percent of schools in Low social capital states are disorderly. One interesting finding is that suburban schools in "Lowest" social capital states have the lowest overall percentage of schools classified as disorderly at three percent. Nearly twice as many of their suburban counterparts in other quartiles of social capital are disorderly. If the percentage of total schools that can be considered disorderly is an appropriate indicator, the positive influence that a decreased level of social capital has on violence does not hold for suburban schools in lowest social capital states.

Table 5.3: Percentage of Schools Classified as Disorderly By Locale and Social Capital

Social Capital		Rural	Town	Suburban	Urban	Total
Lowest	% Lowest	9.4	6.5	5.6	29.0	**11.3**
	% Total	.7	.4	.4	1.4	**2.9**
Low	% Low	6.6	7.2	12.7	34.6	**13.9**
	% Total	.6	.3	.3	2.0	**5.2**
High	% High	5.1	3.3	11.7	32.0	**10.4**
	% Total	.4	.1	.8	.8	**2.0**
Highest	% Highest	6.4	6.5	10.8	17.9	**8.5**
	% Total	.6	.2	.3	.3	**1.5**
	Total %	6.9	6.1	10.9	30.0	**11.6**
Total		**2.0**	**1.0**	**4.0**	**5.0**	**(12)[40]**

The location of disorderly schools can be more precisely specified. As a percentage of all schools in the sample identified as disorderly, five percent are located in

[40] The percentage of the total sample that qualifies as disorderly is slightly higher than the sum of the individual samples do to rounding within the subsample categories.

cities, four percent are located in suburbs, two percent are located in rural areas and the remaining one percent can be found in towns. While the rate for city schools is higher, there are actually almost as many suburban schools as city schools in the United States that experience some form of disorder caused by student behavior. But, how does this translate into the number of students that are exposed to disorderly schools, taking into account the number of students in each setting? There are approximately 3,890,962 students in the SASS schools identified as located in urban settings. Similarly, there are 7,598,605 students identified as attending suburban schools. If approximately thirty percent of urban schools are disorderly, this equates to 1,167,289 students attending these schools. If approximately eleven percent of schools in suburban areas are disorderly, this equates to 835,847 suburban students attending disorderly schools. About seventy-two percent (71.6) of the number of students who attend disorderly schools in urban areas attend disorderly schools in suburban areas. While city schools capture a larger raw percentage of all disorderly schools, the number of suburban students attending disorderly schools in suburban areas is not far behind. This suggests that policy makers and researchers should rethink the suburban/urban dichotomy.

How do disorderly schools compare with their non-disorderly counterparts? Table 5.4 compares the means and standard deviations of key variables of interest in this study in the entire sample and the sample of schools identified as orderly and those identified as disorderly. Key differences between disorderly and orderly schools are as follows:

- Disorderly schools are found in neighborhoods that are .47 standard deviations *above* the mean of the neighborhood disadvantage scale. Schools classified as orderly lie at .11 standard deviations *below* the mean of neighborhood disadvantage.

- Disorderly schools have 30% more minority students than schools identified as orderly (50.8% vs. 20.3%)
- Disorderly schools have16% more students on free or reduced priced lunch (46% vs. 30%)
- Disorderly schools have slightly higher student teacher ratios (about 16 to 1 vs. 15 to 1)
- Disorderly schools tend to be larger by more than 300 students on average (1001 vs. 673)
- Teachers in disorderly schools report that there is *much less* Teachers' Authority – .77 standard deviations *below* the mean. Teachers in orderly schools report a level of authority level at .20 standard deviations *above* the mean.
- Disorderly schools also report less parental involvement (.18 standard deviations below the mean for disorderly schools and about .12 units above for orderly schools)
- Disorderly schools also have more security measures in place (1.2 vs. .72) and more of a chance of having a violence prevention program (.63 vs. .57)

Table 5.4: Variable Means and Standard Deviations of Schools Classified as Orderly and Disorderly

	Total Sample		Orderly Schools		Disorderly Schools	
Sample Size	**3661**		**2696**		**965**	
	Mean (S.D.)		**Mean (S.D.)**		**Mean (S.D.)**	
Neighborhood Disadvantage	.00	(1.00)	-.10	(.98)	.47	(1.0)
Percent Minority Students	22.3	(28.3)	18.6	(24.9)	50.9	(35.9)
Percent Free/Reduced Priced Lunch	.32	(.23)	.29	(.22)	.46	(.29)
Student-Teacher Ratio	14.9	(4.8)	14.7	(4.4)	16.3	(6.1)
Total School Enrollment	711.3	(542.9)	673.2	(508.2)	1011.1	(690.8)
Teachers' Authority	.00	(1.0)	.20	(1.01)	-.77	(.96)
Parental Involvement	.00	(1.0)	.12	(1.0)	-.18	(.96)
Security Measures	.78	(.89)	.71	(.82)	1.27	(.92)
Viol. Prevention Program	.58	(.49)	.57	(.49)	.63	(.48)

While these descriptive statistics do not allow the specification of any exact causal relationship between school demographics and organizational characteristics and

disorder, the findings here reflect those found in the other two nationally representative samples on school disorder, the Safe School Study (NIE 1978; Gottfredson and Gottfredson 1985) and the National Study of Delinquency Prevention in Schools (Gottfredson et al. 2000).

School Security and Safety Measures in National Perspective

Exactly how prevalent is the use of security devices such as metal detectors and school security personnel? Because of its size, the SASS data allows these questions to be answered at the national level. Table 5.5 presents the percentage of junior and senior high schools (using weighted data) that use stationary metal detectors or have security personnel use hand held devices known as "wands" for random checks. Fourteen percent of junior high schools and about fifteen percent of senior high schools nationally use metal detectors. The percentage for city schools is about twice that, far outstripping their non-urban counterparts. Junior high schools in rural areas report the least use of metal detecting technology at about seven percent. Around ten percent of suburban junior and senior high schools have these technologies present. It is interesting to note that eighteen percent of town senior high schools report using metal detectors.

Examining the distribution according to states' level of social capital reveals more dramatic differences. Metal detectors are used in "Lowest" social capital states almost three times as often as their "Low" social capital counterparts. More strikingly, they are used almost six times more often than in schools in "High" social capital states and *fourteen* times more than in schools in the "Highest" social capital category. In each category of Locale, metal detectors are used far more in states in the lowest social capital category than those in the higher social capital quartiles. City junior and senior high

schools outpace their higher social capital counterparts in metal detector usage respectively by a factor of seven to one and nineteen to one. Twenty-eight percent of rural schools in the lowest social capital category use metal detectors – more than twice the national average.

In every instance, greater percentages of town schools use metal detecting technology than their rural and suburban counterparts. Disaggregating schools by their locale category and their social capital "region" as well provides important contrasts in the use of metal detecting technology in schools that would otherwise be obscured if only geographic location were considered.

Table 5.5: Presence of Metal Detecting Technology in Junior and Senior High Schools by Locale and States' Level of Social Capital

States' Level of Social Capital	Locale									
	Rural		Town		Suburb		City		Total	
	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.
Lowest	28.1	28.2	31.3	38.5	25.6	25.5	46.3	48.0	33.0	33.7
Low	4.1	9.6	17.5	14.6	7.9	10.2	31.0	34.1	14.2	14.4
High	0	3.3	2.0	3.9	1.7	1.4	17.6	18.3	4.3	5.4
Highest	1.1	.6	1.3	1.8	0	2.5	2.4	6.5	1.2	2.2
Total	7.4	11.2	14.2	18.1	9.2	10.9	28.3	29.7	14.0	15.6

The use of security personnel or police (Table 5.6) is even more ubiquitous than metal detectors. In general, forty-two percent of all U.S. public junior and senior high schools have formal agents of security present on any given day. Security personnel are more common in senior than junior high schools, with the difference more pronounced than in the case of metal detectors. Again, city schools and schools in "Lowest" capital

states have the highest percentage of use of police or security personnel. However, the percentages for security personnel do not drop as substantially as the level of social

Table 5.6: Daily Presence of Police or Security Personnel in Junior and Senior High Schools by School Locale and States' Level of Social Capital

States' Level of Social Capital	Locale									
	Rural		Town		Suburb		City		Total	
	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.
Lowest	48.3	47.7	40.1	50.8	41.9	66.4	58.1	89.8	46.7	59.1
Low	27.4	31.0	27.2	47.9	33.0	65.9	66.4	92.1	37.5	57.5
High	17.8	37.1	37.7	38.0	30.1	65.2	62.9	82.7	32.6	52.8
Highest	4.6	15.5	32.2	34.5	33.4	68.3	46.1	86.9	23.3	38.3
Total	22.9	31.4	34.7	44.7	34.2	66.1	60.7	89.1	36.8	53.8

Table 5.7: Prevalence of Violence Prevention Programs in Junior and Senior High Schools by Locale and States' Level of Social Capital

States' Level of Social Capital	Locale									
	Rural		Town		Suburb		City		Total	
	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.
Lowest	63.7	63.5	62.0	57.4	64.6	47.9	75.4	69.2	66.2	58.6
Low	58.6	50.1	50.5	68.3	57.4	56.1	80.8	61.5	61.2	56.5
High	54.3	51.2	52.1	56.0	61.4	65.0	81.7	75.9	61.0	60.0
Highest	48.3	44.9	59.0	51.5	57.7	55.9	67.4	72.3	55.7	51.7
Total	55.5	52.3	56.7	58.8	59.8	56.0	77.3	67.8	61.6	56.8

capital increases as was the case with metal detector usage. Rural junior high schools in the "Highest" social capital states have the lowest reliance on security personnel for school safety. Unlike the trends in metal detector use, however, town schools rely less on metal detectors than suburban schools even though their violence rate was found to be higher. This may suggest has Hess and Leal (2003) do that in areas where parents are more involved, they mobilize more resources for security.

The final programmatic method for reducing student problem behavior being examined here is the use of violence prevention programs. While the SASS does not collect any additional information about the use of such programs that might be used to differentiate these according to criteria of quality (Gottfredson et al. 2000), it is one of the first nationally representative surveys to collect information on their prevalence. More that sixty percent of junior high schools and fifty-six percent of senior high schools have some sort of violence prevention program in place. In most cases, junior high schools out pace senior high schools by four percent or more. In city areas of "Low" social capital states, junior high schools are fifteen percent more likely to have a violence prevention program than senior high schools. As might be expected, city schools are more likely to have a violence prevention program. In general, the higher the social capital designation, the lower the percentage of schools with a violence prevention program. And, as with the percentage of schools with metal detector usage and security personnel, rural schools in the "Highest" social capital states are the least likely to have one in place.

The prevalence of school security measures and violence prevention programs in junior and senior high schools suggests that concern over violence in schools is a high priority and schools and school systems are doing what they can to prevent such problems. What is not as well known, however, is how effective these measures are in curbing school disorder and violence. The results of the research hypothesis in the following chapter are an attempt to address this lack of understanding. The findings reported in the next chapter on the research hypotheses shed light on this issue.

Differences in Student Violent Behavior Nationally

This last section describes the differences in the mean values of the student

violent behavior measure in junior and senior high schools across the sixteen subsamples of the data. The means are an important source of information for comparing effects across subsamples of the data. Unweighted data are presented in this instance in order to present values that are as consistent as possible with the data used for the multivariate analysis. Means and standard deviations for all variables are presented in Appendix B, Tables 1 through 5.

Table 5.8 and Table 5.9 present the standardized means of the Student Violent Behavior scale for junior and senior high schools respectively (standard deviations in parentheses). Temporarily setting aside town schools in both cases, there appears to be a linear relationship between geographic location and student violent behavior. In the

Table 5.8: Means and Standard Deviations of the Student Violent Behavior Scale, Junior High Schools

	Rural		Town		Suburb		City		Total	
Lowest	-0.20	1.1	0.00	1.0	0.02	0.9	0.62	1.2	0.12	1.1
Low	-0.45	0.9	0.21	0.9	-0.25	1.1	0.73	1.3	0.02	1.1
High	-0.21	1.1	-0.09	0.6	-0.20	1.1	0.47	1.2	-0.05	1.1
Highest	-0.47	1.0	-0.24	0.8	-0.21	0.7	-0.01	0.9	-0.27	.88
Total	-0.34	1.0	-0.04	0.8	-0.17	1.0	0.51	1.2	0.0	1.0

main, rural schools have the lowest mean level of student violent behavior with city schools having the highest.[41] Suburban schools, while technically in urban areas, have the second lowest mean rate of Student Violent Behavior. If teachers' reports provide reliable measures of student violent behavior, this would call into question the validity of recent reports suggesting that suburban and urban youth report similar rates of deviance and aggression presented in Chapter One (Greene and Forster 2004).

[41] The mean values for rural, suburban and city schools were found to be statistically different using a one-way ANOVA with Tukey's post-hoc comparison.

In the case of both junior and senior high schools in town areas, the mean value is not statistically different from the mean value found for their suburban counterparts though it is higher than would be estimated. This might suggest that the data for suburban and town schools should be combined. However, schools in town areas differentiate themselves from those in other geographic categories in substantive and statistical ways which warrant separate analysis of their data. For instance, town schools have higher rates of student poverty, are located in areas with high levels of disadvantage, and have fewer students in attendance than their suburban counterparts. (Each of these

Table 5.9: Means and Standard Deviations of the Student Violent Behavior Scale, Senior High Schools

	Rural		Town		Suburb		City		Total	
Lowest	-0.07	1.0	0.17	0.8	0.03	0.9	0.63	0.9	0.14	.94
Low	-0.08	1.0	0.24	1.1	0.15	0.9	0.60	1.0	0.17	1.0
High	-0.22	0.7	-0.04	0.7	0.06	0.8	0.76	1.1	0.07	.9
Highest	-0.36	1.0	0.03	0.7	0.04	0.7	0.39	0.7	-0.06	0.9
Total	-0.18	.95	0.11	.85	0.08	0.9	0.60	.0.9	0.09	.94

differences is statistically different from suburban areas.) In the multivariate statistical analysis, therefore, data for the town junior and senior high schools will be analyzed separately. It will be assumed that the rate of student violence is similar to that of suburban schools, but those differences in the proposed hypothesis which are statistically significant from their suburban counterparts will be highlighted.

In terms of the relevance of social capital categories for the mean of the student violent behavior scale, schools in "Lowest" social capital states have a student violent behavior rate which is statistically higher than their "Highest" social capital counterparts for both school levels.

Conclusion

This chapter has explored national patterns in school disorder and safety efforts accounting for geographic location as well as "regions" of social capital. While clearly more city schools and schools in states with less social capital have problems with disorder and respond to these problems with increased security measures, exposure to disorder is not only a concern in urban areas. Town schools demonstrate a level of student violent behavior which is higher than both rural and suburban schools. Concomitantly, metal detector use is higher in town schools than schools in these areas. For these reasons, particular attention will be placed on the sources of increased violent behavior in town schools in the following chapter which details the multivariate analysis.

CHAPTER SIX
MULTIVARIATE ANALYSIS AND RESULTS

This chapter presents the results from the structural equation model (Figure 4.10) used to estimate the relative effects of the school organizational and demographic variables on student misconduct and violent behavior in the junior and senior high school samples. First presented are the fit statistics for the structural equation models and the R-square values for the two dependent variables among both junior and senior high schools according to the subsample schema. The schema involves identifying both types of schools by their geographic locale (e.g. rural, town, suburban and urban) and the quartile group of states' social capital (e.g. lowest, low, high and highest). Then, results for each of the six study hypotheses will be assessed with attention to how the findings confirm or conflict with existing research. Relevant statistically significant differences in the hypothesis relationships will be highlighted as they arise across school level and across subsample categories within school level. This chapter concludes with relevant implications that the findings have for theory and research on school disorder and violence.

Model Fit Statistics

The first fit statistic considered here for the structural equation models is the Comparative Fit Statistic (Bentler 1990).[42] This statistics measures the degree to which the observed data matches the predicted values of the sample universe. This statistic ranges from 0 to 1 where a 1 equals a perfect fit. Benchmarks for the CFI have ranged as low as .90 to as high as .98. A value of .95 is generally considered a very good fit, but

[42] Because the chi-square is regarded as being sensitive to sample size and variables that are not normally distributed, it is not considered here as a viable measure of model fit.

models with a CFI as low as .90 may be accepted when other indices of fit are shown to be adequate. A typical fit statistic used to support models with low CFI values is the Root Mean Squared Error of Approximation (RMSEA). A benchmark of below .08 has been suggested by Browne and Cudeck (1993).

Table 6.1: Fit Indices For Study Models by Social Capital Subsamples

Index	Level of Social Capital									
	Lowest		Low		High		Highest		Full	
	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.
CFI	.939	.924	.964	.940	.948	.947	.914	.915	.961	.948
RMSEA	.621	.070	.052	.061	.062	.059	.074	.087	.052	.059

Table 6.2: Fit Indices For Study Models by Locale Subsamples

Index	Locale									
	Rural		Town		Suburb		City		Full	
	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.
CFI	.939	.944	.939	.933	.950	.948	.966	.940	.961	.948
RMSEA	.068	.064	.067	.060	.056	.054	.039	.063	.052	.059

Table 6.2 presents the CFI and RMSEA for both junior and senior high schools by geographic location. The full model for the entire junior high school sample fits the data slightly better than that for the senior high school sample. The models for the town and rural subsamples do not quite meet Bentler's (1990) stringent cut-off point of .95, but an examination of the RMSEA for these (and the other models) is well below the suggested cutoff of .08. It is suggested that for these samples which fall below the .95 CFI cut-off but have and RMSEA value below .1 meet the criteria of "good approximate fit."

For the social capital subsamples (Table 6.1), the fit statistics indicate not as good of a fit when compared to the fit of the models according to schools' geographic location. Three of the eight models meet or nearly meet the .95 benchmark suggested by Bentler

(1990): junior high schools in "Low" and "High" and senior high schools in "High" social capital states. For this reason, the statistical results for models when social capital groupings are taken into account should be regarded as suggestive and not definitive of relationships in the wider school population. The analysis that follows will, therefore, focus more on the differences in variable relationships across categories of school location rather than social capital.

R-Square Values for the Dependent Variables

The R-Square values for each of the student behavioral measures are presented in Table 6.3 and Table 6.4. For the misconduct factor, the model predicts the most variability for city senior high schools (54% for junior and 65% for senior high schools). The model for town accounts for the lowest percentage of variability in the student misconduct factor (42% for junior and 40% for senior high schools). Thus, the model as specified is better at predicting variability in the student misconduct factor in schools in highly urban areas.

For the factor measuring Student Violent Activity, again more variability is predicted for senior high schools than junior high schools. This is particularly noticeable for those schools in the "Lowest" social capital category. When geographic location is considered, more than 50% of the variability in most subsamples is predicted. The model is best at predicting teachers' estimation of Student Violent Activity in rural schools and senior high schools in town areas. This last case is interesting in that the model for student misconduct predicted the least amount of variability in town senior high schools. Because both of these models are predicting teachers' aggregate estimate of students' behavior in their schools using Likert scale questions and not individual students'

behavior per se, relatively high R-square values presented should be expected. Having examined the relative efficacy of the models to predict the variability in the two key dependent variables, we now turn to the results of the research hypothesis.

Table 6.3: R-Square Value for Student Misconduct Latent Factor, Junior and Senior High Schools

State Quartile of Social Capital	Locale									
	Rural		Town		Suburb		City		Total	
	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.
Lowest	.53	.50	.47	.40	.51	.52	.76	.75	.56	.56
Low	.61	.55	.58	.61	.61	.60	.67	.60	.62	.63
High	.66	.51	N/A	.61	.58	.53	.67	.76	.59	.62
Highest	.65	.66	.65	.38	.47	.75	.47	.69	.49	.65
Total	.49	.51	.42	.40	.46	.50	.54	.65	.49	.57

Table 6.4: R-Square Value for Student Violent Activity Latent Factor

State Quartile of Social Capital	Locale									
	Rural		Town		Suburb		City		Total	
	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.
Lowest	.69	.82	.64	.89	.55	.78	.53	.60	.48	.72
Low	.63	.60	.53	.63	.68	.68	.65	.78	.59	.65
High	.68	.87	.52	.74	.65	.59	.71	.71	.58	.67
Highest	.74	.72	.51	.62	.49	.28	.57	.74	.59	.60
Total	.69	.68	.55	.67	.60	.58	.58	.62	.52	.64

Examination of Hypothesis Relationships

Assessment of Hypothesis One

An increase in Student Misconduct results in an increase in Student Violent Activity controlling for all other factors

The broken windows theory of crime (Wilson and Kelling 1982) posits that an environment where small transgressions are not controlled contributes to an environment

where more serious behaviors take place. This hypothesis posits a commonsense relationship between these two "ideal types" of student behaviors: where there is smoke, there is likely to be fire. One might expect that in a school where students are unruly in terms of school behavior, they are likely to also engage in more serious and violent behaviors. But, this may not necessarily be the case as was demonstrated in the previous chapter. More than ten percent of the entire weighted sample had a moderate problem with student misconduct with little or no problem with Student Violent Activity. It is important to consider how the strength of the relationship may differ according to school location. In addition, by positing this relationship, an examination of the differences in association between school characteristics like enrollment, student-teacher ratio, minority concentration or teachers' discipline authority with both of the student behavior measures is possible.

Table 6.5 compares the association of Student Misconduct with the level of Violent Behavior among junior high school teachers. Among all junior high schools in the sample, a unit increase in the Student Misconduct factor is associated with about a two-third (.70, $p<.01$) unit increase in the Student Violent Activity factor controlling for all other variables in the model. Thus, when junior high school teachers report more student misconduct, they also report substantially increased levels of Student Violent Activity such as carrying weapons, fighting and robbery and theft. The relationship between these two variables for junior high schools is nearly the zero-order correlation for junior high schools (.728, $p <.05$) which suggests that very little of the variance in the Student Violent Activity factor is accounted for by other variables in the model.43 This

[43] In fact, the only other variable that has a significant relationship with Student Violent Activity in the junior high sample is the measure of parental school involvement. A one-unit increase in parental

may also partially explain why the R-square value for the Student Violent Activity factor for junior high schools is lower than that for senior high schools.

Considering only categories of Locale (the bottom row), it is important to note the strongest relationship between these two variables for junior high schools is found in city and suburban areas. The very small difference between these two settings is not statistically significant. Rural junior high school teachers experience a statistically lower

Table 6.5: Standardized Regression Weights of Student Misconduct on Student Violent Activity, Junior High Schools

State Quartile of Social Capital	Locale				
	Rural	Town	Suburb	City	Total
Lowest	.54**	.34**	.45**	.88**	.63**
Low	.43**	.27	.91**	.77**	.74**
High	.95**	N/A[44]	.92**	1.16**	.95**
Highest	.78**	.73**	.68**	.71**	.70**
Total	.68**	.39**	.81**	.83**	.70**

* p <.01 ** p <.05 † .06 > p < .10

increase in the level of Student Violent Behavior than their city counterparts as the level of student misconduct increases. This might be expected because the mean levels of student misconduct and violent behavior in city and rural junior high schools differ quite substantially. (Rural junior high schools have a violence level that is .34 units below the national average while their city counterparts report a violence level that is .51 units above the national average.) Town schools demonstrate the smallest association between these two variables. This value is statistically different from both suburban and city

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involvement in junior high schools is associated with a -.11 unit decrease in the measure of Student Violent Activity. This will be discussed in detail in the assessment of Hypothesis Six.

[44] Due to the relatively small sample size for this group, AMOS was unable to fit a model for this subsample. Therefore, comparisons of "High" social capital junior high schools across geographic location do not include this group.

junior high schools. Location is, thus, a pertinent factor in understanding the relationship between student misconduct and violent behavior in junior high schools.

The relationship between Student Misconduct and Violent Activity for junior high school teachers according to state social capital quartiles produces some notable and unexpected findings. First, among the first three categories of social capital category, the higher the category, the stronger the relationship between Student Misconduct and Violent Activity as reported by teachers. This increase in the level of Student Violent Activity is statistically significant between "Lowest" and "High" and "Low" and "High" categories. This suggests that in contrast to their two lower social capital counterparts, junior high school teachers in "High" social capital states experience a more rapid escalation of Student Violent Activity as the level of misconduct increases in their schools. While the rates of violent behavior were demonstrated to be lower in higher social capital states (Chapter Five), misconduct rates apparently have a stronger relationship to violent behavior for those schools in the bottom two categories when compared to the third when geographic location is not considered. This is an unexpected finding in that being in a higher social capital state does not necessarily weaken the bond between student misconduct and violent behavior as was anticipated.

Second, junior high school teachers in "High" social capital states report about a one-unit (.95, $p<.01$) increase in the level of Student Violent Activity per unit increase in Student Misconduct. Their "Highest" social capital counterparts report an effect which is a quarter less (.70, $p<.01$). One might expect that teachers in states with highest social capital might report the lowest association between these two variables, but they report

one that is not statistically different from their counterparts in "Lowest" and "Low" social capital states.

Expanding the social capital categories to include comparisons across geographic location reveals two significant contrasts. City junior high teachers in "Lowest" social capital states report a .88 unit increase in Student Violent Activity per unit increase in Student Misconduct. Their suburban counterparts report about half the effect (.45, $p<.01$) and their town counterparts report even less of an increase (.34, $p<01$). In those states designated as having very low levels of social capital, urban vs. non-urban differences in the association of student misconduct with violent behavior are more pronounced than that discovered at the national level. Where no differences in general exist between city and suburban junior high schools, include the strata of social capital reveals significant urban vs. non-urban differences in "Lowest" social capital states.

For senior high school teachers, an increase in student misconduct is not associated with as large of an increase in Student Violent Behavior as was found with the junior high school sample. Senior high school teachers report just over half of a unit increase (.55, $p<.01$) in Student Violent Behavior as student misconduct increases by one unit. The difference in this coefficient between senior and junior high schools is statistically significant. This is surprising considering that the mean values for both of these variables are higher among the senior high school sample.[45] The finding that junior high school teachers report more violent behavior per increase in student misconduct than their senior high counterparts may point to why existing research finds fighting to be more of a problem in junior high schools. Part of the issue with the greater degree of

[45] It should be reiterated here that even though the Violent Activity factor was higher for the senior high school sample, the indicator for physical conflict was higher for the junior high school sample.

physical conflict among junior high school students may be that they must abruptly adapt to school conditions which are much different from their elementary experience. On the one hand, junior high school students must contend with new challenges like larger school buildings, changing classes and teachers. On the other, junior high school offers youth more opportunity to interact with peers and highly (or loosely) differentiated peer groups. Further, junior high aged youth are at the point of developing a physical strength which is not adequately balanced by impulse control. The new school experiences and social stimulation that junior high students must navigate may stimulate opportunities for conflict not pertinent for their older high school counterparts.

Unlike their junior high counterparts, however, variations in the strength of the broken windows relationship among the senior high school sample do not vary according to geographic location. While location does matter for the association between student misconduct and violent behavior in junior high schools, location is not a significant factor for this relationship among the senior high school sample. This is pertinent to current research on school disorder. Net of other factors, the association of general disorder to student violent activity is no stronger in city senior high schools that than their suburban, town and rural counterparts. As will be demonstrated below, higher levels of teacher reported violence in urban senior high schools has additional sources such as school size and student teacher ratio. Considering disorder levels as predictive factor in student violence adds important new information to existing research on student violent behavior. For senior high schools, the disorder posed by student misconduct is only one consideration.

States' social capital is, however, a significant factor for senior high schools in terms of understanding the relationship between student misconduct and violent activity. In general, the higher the quartile of social capital, the lower the increase in Student Violent Activity per unit increase in Student Misconduct. The difference is statistically significant when high schools in the "Lowest" social capital states are compared with those in both the "High" and "Highest" social capital states. Senior high school teachers in "High" and "Highest" social capital states report respectively .21 and .29 less of an increase in Student Violent Behavior per unit increase in student misconduct when compared to their counterparts in "Lowest" social capital states. A statistically significant decrease in this effect is also observed when high schools in "Low" and "Highest" social capital states are compared. When compared to their counterparts in "Low" social capital states, senior high school teachers in "Highest" social capital states report .21 less of an increase in Student Violent Behavior as student misconduct

Table 6.6: Standardized Regression Weights of Student Misconduct on Student Violent Activity, Senior High Schools

State Quartile of Social Capital	Locale				
	Rural	Town	Suburb	City	Total
Lowest	.53**	.80**	.87**	.53**	.71**
Low	.69**	.52**	.72**	.58**	.63**
High	.67**	.12	.42**	.65*	.50**
Highest	.47**	.42**	.30	-.19	.42**
Total	.51**	.52**	.61**	.52**	.55**

* p <.01 ** p <.05 † .06 > p < .10

increases. It should be noted that the expected inverse relationship between social capital quartiles and this "broken windows" effect in senior high schools is opposite that found for junior high schools. Junior high schools in higher social capital states were found to

experience more student violence than their lower social capital counterparts per unit increase in Student Misconduct. This may suggest that the association between student misconduct and violence levels among junior high school students has fundamental differences according to school level and social capital. This theme will be developed further as more differences between junior and senior high schools are encountered in the remaining hypothesis assessments.

The assessment of this hypothesis has demonstrated strong association between the school disorder posed by increased student misconduct and violent behavior. School violence prevention strategies that are involving a broken windows approach are warranted in doing so. The broken windows problem is worse for junior high schools and this may be a result of how their relative lack of impulse control interacts with the more chaotic environment. The increased physical fighting of junior high school contrasts with the higher rates of more calculated violent activities of robbery, theft and bringing weapons among senior high school students. There may be other things at work in junior high schools which may contribute to increased bullying and physical conflict. Junior high school covers a relatively narrow grade range, but may have a considerable age range. This is the general age period where children start to develop rapidly and differences among kids even of the same age are wide. Some of those held back may be substantially older and physically much larger than others without either the relatively nurturing environment of elementary school or outlets for frustration like the extended extracurricular activities of senior highs. And, by the time kids get to senior high school, the most over-aged, disaffected and violent students may have dropped out, have been

expelled or have entered the criminal justice system. This option isn't available at the junior high school level.

Nevertheless, encouraging more civilized school environments is likely to improve student achievement and bonding and lower the level of conflict. But, policy makers and researchers need to focus both on how schools function as moral communities to encourage better student behavior and on the role of demographic and institutional factors in affecting conflict levels.

Assessment of Hypothesis Two

The greater the percentage of minority and poor students and the higher the level of neighborhood disadvantage surrounding a school, the greater the level of student misconduct and violent behavior as reported by teachers.

Guided by existing research which implicate the influence of demographic factors on school disorder (Willis 1977; McFarland 2001; Welsh et al. 1999; Welsch et al. 2000), this hypothesis offers an opportunity to gauge the relative effects of minority concentration, student poverty and schools' neighborhood disadvantage on both estimates of student behavior. By comparing differences in association across categories of geographic location, this research improves on Welsch et al.'s (1999) research on the relative effects of imported vs. local effects. In that the SEM models allows for an association between the three demographic variables with other key study variables, the independent effects of these variables are better estimated. In short, the model is better able to control for any spurious relationships that may exist between the key study variables and the outcome variables which might be explained by the demographic variables.

Coefficients for junior high schools across the sixteen subsamples are presented in Table 6.7. For all junior high schools, a one unit increase in Minority Student Concentration yields about a one-third unit increase in the level of Student Misconduct. None of the comparisons across categories of locale are statistically significant. This means that no matter what their location, an increase in the percentage of minority students is associated with a similar increase in school disorder. It is also important to note that an increase in Minority Concentration in junior high schools is associated with an increase in Student Violent Activity. This finding suggests that increased numbers of minority students in public junior high schools do not directly contribute to violence levels as measured here, but only indirectly through student misconduct.

The influence of student poverty on the two student behavior variables yields one interesting statistically significant contrast for junior high schools. An increase in Student Poverty in city and suburban junior high schools raises the level of teacher reported student misconduct by .16 and .15 units respectively. However, in town junior high schools, an increase in student poverty lowers student misconduct by .17 units. Two possible interpretations arise from this unexpected finding; interpretations which may or may not be mutually exclusive. First, poor junior high students in towns may be better behaved than their city and suburban counterparts irrespective of race. Second, town junior high schools may be better at controlling the unruliness of their poor charges than their suburban and city counterparts. There may be something about how junior high schools in towns are organized that militates against the social demographic forces of poverty that are typically associated with increased student resistance. This contrast is interesting insofar as town schools were found to have more poor students than suburban

schools. But, as confounds most analysis where race and class are considered as independent effects, these two measures are highly correlated. Even though an increase in poor students in town areas results in a decrease in Student Misconduct, this effect is tempered by the fact that student minority concentration was found to have a strong positive effect on this variable.

Whatever the circumstances, the association of Student Poverty with Student Misconduct is not uniform in junior high schools when geographic location is taken into account. Student poverty does, however, raise the level of teacher-reported student violent activity in junior high schools. Neighborhood Disadvantage has a small effect on the level of student misconduct in the entire junior high sample, but no effect on the level of Student Violent Behavior reported by teachers. In terms of comparing the effect of school demographics on student behavior between urban, suburban, town and rural junior high schools, the percentage of minority students is the most salient factor.

The only statistically significant contrast produced by the social capital groupings among junior high schools lies in the relationship between Student Poverty and Student Misconduct. Even though these two variables have no relationship in the entire junior high sample, increased percentages of junior high students in poverty in the "Lowest" social capital states is associated with a small decrease (-.18, $p<.05$) in student misconduct. This is similar to the effect found in town junior high schools. Their "High" and "Highest" social capital counterparts, however, experience small increases (.23 and

.12 units respectively, p <.01).[47] Net of other demographic effects, poor junior high

Table 6.7: Relative Direct Effects of Demographics on Student Misconduct and Violent Behavior, Junior High Schools

		Misconduct			Violent Behavior		
Social Capital Quartile	Locale	Percent Minority Students	Student Poverty	ND[46]	Percent Minority Students	Student Poverty	ND
Lowest	City	.57**	-.20	.17	-.06	.08	.03
	Suburb	.54**	-.09	-.05	-.07	.13	-.01
	Town	.48**	-.37	.15	-.09	.18	-.01
	Rural	.13	.28	-.32	.34**	-.10	-.23
	Total	.45**	-.18*	.15H	.07	.06	-.03
Low	City	.34**	.02	-.09	.28	.07	.01
	Suburb	.48**	.10	-.12	.05	-.09	-.04
	Town	.62**	-.44**	.32	.10	.09	-.12
	Rural	.28	.00	-.08	.05	.25**	-.07
	Total	.41**	.05	.11	.02	.02	.00
High	City	-.08	.79**	.02	.14	.08	.07
	Suburb	.21	.13	.26*	.14	-.10	.17
	Town	N/A	N/A	N/A	N/A	N/A	N/A
	Rural	.25	-.11	.40	-.11	-.05	.11
	Total	.20**	.23**	.18*	.20*	-.01	.05
Highest	City	.21	.25	.21	.20	.02	-.09
	Suburb	-.19	.40	.18	.28	.15**	-.07
	Town	.42**	-.13	.12	-.05	.06	.21
	Rural	.25	.17	.15	-.29*	.03	.31
	Total	.31**	.12**	.08	.06	10	.01
Locale (Total)	City	.21**	.16*	.15†	.09	.07	-.04
	Suburb	.35**	.15*	-.02	.03	.05	-.03
	Town	.21**	-.17*	.10	-.04	.07	.00
	Rural	.27**	-.01	.17†	-.07	.03	.11
Total		.32**	.06	.10*	.04	.08*	.02

* p <.01 ** p <.05 †.06 > p < .10

[46] "ND" hereafter refers to the Variable Neighborhood Disadvantage

[47] Because these latter two coefficients are not statistically different from one another, it is assumed that the coefficient for both samples is more likely to around .17.

students appear to be better behaved in states where social capital is lower and in town schools. This finding is an unusual one because it was thought that increased exposure to social capital would weaken the influence of demographic influences on student behavior. There may be similar cultural factors at work in both lower social capital states and towns which may have something to do with the better behavior of poor students in junior high schools.

Table 6.8 presents the findings for the second hypothesis for senior high schools. As with their junior high school counterparts, the modest increase (.27, $p<.05$) in Student Misconduct associated with each unit increase in Minority Concentration does not differ statistically across geographic location. This relationship is not different from that found with the junior high school sample, suggesting that the association between these two variables for both the junior and senior high schools is closer to a .30 unit increase. While Student Poverty had a weak association with Student Misconduct in junior high schools, this is not the case for the senior high school sample. However, the measure of neighborhood disadvantage has a very small, but significant, positive association with the level of student misconduct in the entire senior high school sample which is statistically similar to the effect in junior high schools. In general, the socio-demographic conditions surrounding senior high schools are a salient factor in predicting the level of disorder in senior high schools net of other factors. However, comparing the differences in this relationship across geographic location it is found that neighborhood disadvantage is positively associated with the level of student misconduct in rural senior high schools but not for their city counterparts. The measure of neighborhood disadvantage is found to affect teachers' reports of student misconduct in rural schools more than other schools.

These finding suggest that rural schools face more of an issue regarding local vs. imported neighborhood effects on general school disorder.

The percentage of minority students is the only demographic factor that matters for predicting the level of student violence that senior high teachers report. This effect is found to be statistically different from the null association between Minority Concentration and Violent Behavior in the junior high sample. And, unlike their junior high school counterparts, geographic location does matter for the relationship between Student Minority Concentration and Violent Activity in senior high schools. Town high school teachers report a moderate (.38, $p<.01$) increase in Student Violent Activity per unit increase in minority concentration. Their suburban and rural high school counterparts report a very weak increase (.15 and .10, $p<.05$, respectively) in this association. The significance of minority concentration for violence levels in town high schools is maintained even when levels of social capital within each geographic category are taken into account. In each social capital designation (e.g. Lowest, Low, High, Highest), the increase in student violence per unit increase in minority students is significantly higher for town schools than at least one other category of geographic location. This coefficient is higher for town high schools than city schools in "Low," "High" and "Highest" social capital states; higher than suburban schools in "Lowest," "Low" and High" social capital states; and higher than rural senior high schools in "Lowest," "Low" and "Highest" social capital states. The stable positive relationship between minority concentration and student violence levels in town schools even as the level of social capital increases is not explained simply by an increased minority concentration. Even though town schools in "Lowest" and "Low" social capital states

Table 6.8: Relative Direct Effects of Demographics on Student Misconduct and Violent Behavior, Senior High Schools

		Misconduct			Violent Behavior		
Social Capital Quartile	Locale	Percent Minority Students	Student Poverty	ND48	Percent Minority Students	Student Poverty	ND
Lowest	City	.42**	-.05	.13	.09	-.08	.07
	Suburb	.23**	.21**	-.03	.23**	.05	.06
	Town	20*	.05	.10	.33**	-.02	-.09
	Rural	.27**	.09	.02	.06	.16	-.02
	Total	.36**	.02	.10	.08	.08	-.02
Low	City	.27	-.05	.09	-.27*	.36**	.02
	Suburb	.33**	.01	-.02	.08	.09	.09
	Town	.12	.24**	.16	.39**	.11	-.17
	Rural	.21**	.09	.18	-.01	.00	.07
	Total	.32**	.01	.13	.05	.01	-.04
High	City	.14	.27**	-.09	.29**	-.10	-.08
	Suburb	.22**	.16	.15	.19*	.05	-.01
	Town	.35**	.00	.18	.45**	.05	.10
	Rural	.16	.00	.19	-.16	.03	.20**
	Total	.29**	.08	.03	.22**	-.01	.01
Highest	City	.21	.00	-.21	.03	.22**	-.15
	Suburb	.41**	-.08	-.13	.18	-.02	.13
	Town	.05	.06	.22	.30**	.00	.09
	Rural	.29**	.05	.07	.12	-.20*	.25
	Total	.25**	.03	.03	.15**	-.07	.17
Locale (Total)	City	.33**	.00	.04	.10	.13*	-.02
	Suburb	.25**	.09	-.06	.15*	-.03	.06
	Town	.14**	.06	.05	.38**	-.04	-.02
	Rural	.24**	.03	.10*	.10*	-.07	.14*
Total		.27*	.03	.08*	.15*	.01	.05†

* p <.01 ** p <.05 † .06 > p < .10

have the second highest percentage of minority students in the entire junior high sample (city schools in both categories have the highest), this percentage is lower than their city, suburban and rural counterparts in the top two categories of social capital. The fact that an increased minority percentage is associated with in student violent activity in town schools has not been previously reported in school violence research. This analysis demonstrates interesting dynamics in the level of violent behavior in town schools which deserves further attention.

It should also be noted that the measure of local neighborhood disadvantage was found to have no overall association with Student Violent Activity in senior high schools. Schools in rural areas, however, experience an increase which is significantly different from the lack of association in city senior high schools. Again, neighborhood disadvantage is more salient a proxy of the disorganizing effects of poverty on student behavior in rural areas. The level of student poverty demonstrated a positive association with Student Violent Activity in city senior high schools (.13, $p<.05$), a statistical increase over the null relationship found with their suburban, town and rural counterparts. The percentage of students who qualify for free or reduced priced lunch has been suggested to be a weak indicator of student class because not all parents who qualify actually sign up for this Federal program. The relative significance of class effects on the student behavior measures will be addressed further in the discussion of the findings.

Assessment of Hypothesis Three

Increased school enrollment and student-teacher ratio are positively related to the level of student misconduct and violent behavior. In addition, an increase in school size results in an increase in student-teacher ratio.

This hypothesis builds on previous research (Gottfredson et al. 1985; Bryk and Driscoll 1988; Battistich and Hom 1997; Raywid 1997; Welsch et al. 2000) which finds mixed results for the effects of school enrollment and student-teacher ratio have on school disorder and violence. Where most of these studies used data which is limited in scope, the size of the SASS sample allows for a more through examination of the effect of school size and student-teacher ratios on student behavior. It is hoped that this will shed new light on the mixed relationship that these typical "school effects" variables have had in the literature. As total school enrollment has been found to have multiple effects on student behavior, both direct and indirect, the SEM model used here is an improvement on standard regression techniques because a myriad of interaction effects not addressed in previous research may be addressed. For instance, this hypothesis controls for the relationship that school size is theorized to have on teachers' control over discipline as well as student-teacher ratios. Table 6.9 presents the results of the structural equation models for this hypothesis.

The Effect of School Size and Student-Teacher Ratio on Student Misconduct

For all junior high schools, the student-teacher ratio – and not school size – matters for the level of student misconduct teachers report. A one unit increase in the student-teacher ratio in junior high schools is associated with a small, yet significant, (.13 $p<.01$) increase in Student Misconduct. School size is found to have a positive association with the level of student misconduct in senior high schools that is statistically different from the null relationship in the junior high school sample. This contrast may not be surprising insofar as junior high schools tend not to be as large as senior high

schools. Although there can be very large junior high schools, the mean number of student in the junior high school sample is 643. For senior high schools, the mean school enrollment stands at 1021.

For the senior high school sample, school size is associated with a moderately small increase in the level of student misconduct (.23, $p < .01$). An unusual finding is that *size does not matter for the level of student misconduct in city senior high schools when compared to town and rural schools*. Contemporary perspectives on disorder in urban schools have singled out size to be a significant factor. This result runs counter to this assumption. In suburban and town senior high schools, larger enrollment size is associated with a similar small (between .12 and .11) increase in student misconduct. In rural schools, the effect is larger (.28, $p<.01$). Controlling for all other factors, school size has more of a direct effect on student misconduct for senior high schools not serving highly urbanized populations.

What does matter for the level of student misconduct reported by city high school teachers is the student-teacher ratio. Teachers in city high schools report a moderate (.31, $p<.01$) increase in student misconduct as their student-teacher ratio increases in size by one unit. The strength of this increased association is statistically different from the very small increase reported by suburban senior high school teachers and the null relationship recorded for their town and rural counterparts. This is not surprising in that student-teacher ratios are highest in city schools which demonstrates at least partially the detrimental influence that differential resource allocation has on city schools. To the extent that increased disorder posed by class cutting, tardiness and classroom interruptions may contribute to an atmosphere where violent behavior may be

encouraged, reducing the student-teacher ratios would be more effective than decreasing enrollment sizes in city schools.

The Effect of School Size and Student-Teacher Ratio on Student Violent Activity

In contrast to the lack of association between student misconduct levels and school size in junior high schools, school size has a positive association (.16, $p<.01$) on the level of violent behavior reported by junior high teachers. Disruptive student behavior in junior high schools appears to be a result of increased student-teacher ratios, but violent behavior is associated with more students and larger campuses. Where there are more students, there are more social opportunities for conflict and more unmonitored spaces in which this conflict can occur. (It should not be surprising, therefore, that the relationship of school size to the number of security measures is one of the strongest among the independent variables.) However, it should be noted that school size has no association on the level of student violent activity in city junior high schools, but it does for those in rural areas (.34, $p<.01$). This does not suggest that this effect is not present in city junior high schools. It only suggests that rural junior high schools find more violent behavior as school size increases relative to their city counterparts.

Total school enrollment is associated with an increase in the level of Student Violent Activity in senior high schools which is slightly less then that found with junior high schools (.10, $p<.01$ vs. .16, $p<.01$). This suggests that school size has a slightly stronger association with Student Violent Activity in junior high schools than senior high schools. Whether due to their relatively high maturity level, or to differences in the way student activity is orchestrated, senior high schools can be larger with less risk of

Table 6.9: Relative Effects of Total School Enrollment and Student-Teacher Ratio on the Student Behavior Measures

		Misconduct				Violent Behavior			
Social Capital Quartile	Locale	Total School Enrollment		Student-Teacher Ratio		Total School Enrollment		Student-Teacher Ratio	
		Jr.	Sr.	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.
Lowest	City	-.16	.09	.38**	.02	-.04	.12	.01	.21
	Suburb	-.03	.11	.06	-.01	-.08	.11	-.02	.07
	Town	.18*	.12	.07	.03	.14	-.09	-.14	.08
	Rural	.00	.15*	-.10	.09	-.09	.07	.02	.04
	Total	.04	.20**	.09	.03	.00	-.01	-.01	.08
Low	City	-.02	-.23*	-.01	.18*	.02	.29	.08	-.08
	Suburb	.04	.21	.07	.00	.06	.05	-.08	-.05
	Town	.01	.07	.26	.17	.30	.09	-.10	-.01
	Rural	-.23*	.26**	.20*	-.01	.44	.23	-.25	-.11
	Total	.04	.20	.06	.05	.16	.12	-.08	-.06
High	City	.09	.01	.06	.74**	-.06	-.05	.06	.13
	Suburb	.22**	.08	.21*	.24	.15	.21	-.08	-.28
	Town	N/A	.01	N/A	.25	N/A	.06	N/A	.24
	Rural	-.19*	.48**	.39**	.02	-.04	.10	.01	-.21
	Total	.09	.20*	.24**	.23**	.05	.02	-.06	.01
Highest	City	.38**	.09	-.01	.27	-.17	.33	.25	.27
	Suburb	.64**	.12	-.27*	.09	-.20	.11	-.07	-.03
	Town	-.08	.02	.15	.05	-.03	.16	.06	-.11
	Rural	-.17	.43**	.35**	.02	.47	.16	-.10	.04
	Total	.00	.38**	.17*	.08	.36	.25	-.02	-.04
Locale (Total)	City	.04	-.05	.09	.31**	-.02	.15**	.05	.12*
	Suburb	.09	.12**	.12*	.11*	.08	.13**	-.07*	-.11**
	Town	-.02	.11*	.07*	.08	.10	.03	.00	.05
	Rural	-.20*	.28**	.23**	.05	.34**	.19**	-.08	-.06
Total		-.01	.23**	.13**	.11**	.16**	.10**	-.03	-.01

increasing opportunities for violent behavior. Unlike junior high schools, however, there is no statistical difference in this association according to location.

Overall, student-teacher ratio has no association with Student Violent Activity in both junior and senior high schools, but when geographic location is considered, there is

one relationship that is significant. City senior high school teachers report a small (.12, $p<.01$) increase in violent activity among their students as the student-teacher ratio increases by one unit. On the other hand, their suburban senior high counterparts report a small statistically significant decrease (-.11, $p<.01$) in the level of Student Violent Behavior while their town and rural counterparts report no effect. It is unlikely that increased student-teacher ratios cause lowered student violent activity. It may be more likely that student-teacher ratios may only increase in suburban schools where student stake in behavioral conformity is higher. Where students are better behaved, schools can, in effect, afford higher student-teacher ratios. And, perhaps in such schools other resource staff are present in abundance. This may be unlike senior high schools in very large city school districts where policies regarding such issues as student-teacher ratios may have little sensitivity to the behavioral dispositions and academic needs of the students being served.

An increase in the student-teacher ratio is found to be important for predicting the level of student misconduct in both junior and senior high schools. It has no association with the level of student violent activity that teachers report except for those in city senior high schools. Where school size is not predictive of the level of student misconduct in junior high schools, it is for senior high schools. School size is linked to increased levels of students' violent activity in both senior and junior high schools. But, these effects are not uniform across categories of locale. For city senior high schools, the student-teacher ratio – and not the size of the student enrollment – is positively related to student misconduct. The opposite is true for town and rural schools where size is more important for the level of student misconduct. Rural senior high schools are particularly sensitive to

this effect. In terms of their effect on the student violence measure, school size is also important for rural junior high schools in a way not found for their city, suburban and town counterparts.

Assessment of Hypothesis Four

An increase in teachers' authority over their schools' discipline climate results in a decrease in Student Misconduct and Violent Behavior controlling for all other factors

The third study hypothesis predicts that when teachers have more control over school wide discipline practices, they are better able to create a school environment which is protective against student anti-school and anti-social behavior. Table 6.10 and Table 6.11 present the relationship that Teachers' Discipline Authority has on Student Misconduct in junior and senior high schools respectively. For all junior high schools, an increase in teachers' discipline authority is associated with a moderate decrease in the amount of student misconduct they report (-0.43, $p<.01$). There are no statistical differences between this negative effect in junior high schools according to their geographic location or level of social capital. Thus, teachers' authority over discipline is a stable resource for junior high school teachers no matter their geographic location, even in cities where this resource is lower. Their senior high counterparts report relatively low levels of authority over discipline when compared to their junior high counterparts and this may have something to do with the differences in association as detailed below.

Examining the influence of teachers' discipline authority on student misconduct across both locale and social capital divisions results in two significant differences. First, in the "Low" social capital sample, teachers in city junior high schools report a much

greater decrease in student misconduct per unit increase in discipline authority when compared to their counterparts in towns. While overall, the influence that town teachers have on student misconduct is no different from their city counterparts, the have much less influence in "Low" social capital states. Second, suburban junior high school

Table 6.10: Standardized Regression Weight of Teachers' Authority on Student Misconduct, Junior High Schools

State Quartile of Social Capital	Locale				
	Rural	Town	Suburb	City	Total
Lowest	-0.53**	-0.47**	-0.51**	-0.61**	-0.47**
Low	-0.53**	-0.38**	-0.34**	-0.67**	-0.40**
High	-0.40**	N/A	-0.42**	-0.22**	-0.37**
Highest	-0.40**	-0.38**	0.00	-0.42*	-0.36**
Total	-0.49**	-0.52**	-0.35**	-0.45**	-0.43**

* $p < .01$ ** $p < .05$ † $.06 > p < .10$

teachers in "Highest" social capital states report no association between student misconduct and their discipline authority. Their rural counterparts report about the national average. This may have something to do with the fact that suburban junior high teachers in this category of social capital reported one of the lowest mean levels of both student misconduct and discipline authority. It may, then, be no surprise that there was no relationship between these two variables. That suburban teachers in states designated as having the highest level of social capital report the lowest level of this organic resource and that they report no influence over student misconduct is an unexpected finding.

Overall, the relationship between teachers' authority and student misconduct is quite stable across location and levels of social capital in junior high schools. One fortunate finding is that although city teachers report the lowest mean rates of authority,

they gain as much if not slightly more benefit than their non-urban counterparts from reducing students' cutting class, being late to class and interrupting. Thus, a unit increase in this valuable source of school stability is worth more in these schools. Increasing teachers input and control over their schools' discipline climates, particularly in city schools, is a point which should be emphasized in policy attempts to curb school disorder.

Table 6.11 presents the relationship between Teachers' Authority and Student Misconduct in senior high schools. In the entire senior high school sample, teachers report about a half a standard deviation decrease in student misconduct as their level of discipline authority increases by one unit. This is a statistically stronger relationship than the one found with junior high school teachers suggesting that senior high school teachers experience more of a return for an increase in the institutional support for their work than their junior high counterparts. This is a fortunate fact because they report a lower mean level of Discipline Authority than their junior high counterparts. A comparison of this relationship across locale reveals that city senior high school teachers benefit more than their suburban, town and rural counterparts as more of this resource is made available to them. Similar to the difference between junior and senior high school teachers, this is fortunate in that net of other factors city senior high school teachers report the lowest mean level of discipline authority out of all groups. Like the difference between junior and senior high schools, the relative scarcity of this resource may explain the relative strength of its effect on student misconduct. But, when they have access to more authority, it also appears to be more effective.

When the social capital groupings are taken into account, the only statistically significant difference in this negative association lies between senior high schools in "Low" and "High" social capital states. Senior high school teachers in "High" social \ \capital states report less of a return on increased control over discipline in terms of reduced student misconduct than their "Low" social capital counterparts. Because there is only one statistically significant difference, drawing conclusions about a possible inverse effect of social capital on this relationship is not warranted. When both locale

Table 6.11: Standardized Regression Weight of Teachers' Authority on Student Misconduct, Senior High Schools

State Quartile of Social Capital	Locale				
	Rural	Town	Suburb	City	Total
Lowest	-0.53**	-0.54**	-0.55**	-0.67**	-0.48**
Low	-0.59**	-0.52**	-0.54**	-0.50**	-0.49**
High	-0.49**	0.63**	-0.48**	-0.75**	-0.42**
Highest	-0.49**	-0.43**	-0.59**	-0.85*	-0.46**
Total	-0.52**	-0.54**	-0.55**	-0.67**	-0.51**

* $p < .01$ ** $p < .05$ † $.06 > p < .10$

and social capital are taken into account, city senior high teachers in "High" social capital states report a decrease in student misconduct which is statistically higher than their suburban and town counterparts. This reproduces the contrasts found among the samples when only locale was considered.

Table 6.12 presents the relationship between Teachers' Authority and Student Violent Activity for junior high schools. In general, teachers' school-wide influence over discipline was found to have less than a quarter of the negative association with Student

Violent Activity that it did with Student Misconduct (-0.10, p<.01). This is an encouraging finding on two accounts. First, it appears that controlling for all other

Table 6.12: Standardized Regression Weight of Teachers' Authority on Student Violent Activity, Junior High Schools

State Quartile of Social Capital	Locale				
	Rural	Town	Suburb	City	Total
Lowest	-0.37**	-0.27**	-.32**	0.07	-0.17*
Low	-0.32†	-0.51*	-0.10	-0.20	-0.16*
High	-0.07	N/A	-0.00	-0.14	-0.02
Highest	-0.05	-0.15	0.09	-0.44**	-0.12
Total	-.10*	-.25**	-.10*	-.08	-.10**

* p <.01 ** p <.05 † .06 > p < .10

potential influences on teachers' perceptions of Student Violent Activity – including the level of students' misconduct and student demographics – teachers report lower levels of Student Violent Activity the greater their influence over their schools' discipline climate. Second, though this negative association is not as strong as it is with student misconduct, it is still significant enough to suggest that the authority structure of schools is an important factor in reducing Student Violent Activity. And, because this effect is not statistically different across geographic location, this means that junior high teachers in city areas report a similar decrease in Student Violent Activity per unit increase in their influence over discipline that their suburban, town and rural counterparts do.

Junior high school teachers in states that fall into the bottom two quartiles of Putnam's (2000) social capital scale experience an almost identical weak influence on Student Violent Activity and this effect is statistically different from the non-existent effect in "High" social capital junior high schools. It is also interesting to note that rural junior high schools in "Lowest" social capital states appear to account for all of the

negative effect of teachers' authority on Student Violent Activity for all rural schools. For schools in this subsample, this effect is statistically stronger for their town and suburban counterparts. While there is no overall effect of Teachers' Authority on Student Violent Activity for the "Highest" social capital junior high schools, a reverse pattern emerges when geographic location is taken into account. City junior high teachers in the states with highest levels of social capital report almost a half of a standard deviation decrease in Student Violent Activity per unit increase in their discipline authority. Their rural counterparts report no decrease. In some instances, therefore, the social capital groupings reveal significant differences in the effect of teachers' discipline authority on both of the student behaviors across categories of locale; these differences are otherwise obscured in data aggregated only by locale. This suggests that further comparative research on school outcomes like student behavior should not treat all schools within a geographic location (e.g. city, suburban, town and rural) as the same. This finding can improve our understanding of the social processes which protect against school disorder and violence considered nationally.

Overall, senior high teachers' authority over school discipline is found to have a weak negative association to the level of student violent activity they report and this is similar in effect their junior high counterparts reported. Rural senior high teachers report a small decrease that is statistically higher than their suburban counterparts who report no effect. Town senior high teachers apparently report a lowered level of Student Violent Activity which is similar to that of their rural counterparts.

While the results regarding the influence of teachers' authority to discipline on student behavior are encouraging, it appears that this important social resource matters

Table 6.13: Standardized Regression Weight of Teachers' Authority on Student Violent Activity, Senior High Schools

State Quartile of Social Capital	Locale				
	Rural	Town	Suburb	City	Total
Lowest	-0.38**	-0.05	.14	-.14	-0.09
Low	.00	-0.04	-0.06	-0.27	-0.10
High	-0.25**	-0.31	-0.29*	-0.02	-0.16*
Highest	-0.17	-0.36*	-0.04	-0.83†	-0.19**
Total	-.20**	-.17**	-.05	-.14	-.13**

* $p < .01$ ** $p < .05$ † $.06 > p < .10$

more for reducing student misconduct directly than Student Violent Activity. It should be emphasized here that per Wilson and Kelling's (1982) broken windows theory, decreasing general student misconduct is useful for its effect in reducing the level of student violent activity.

Now that the relative association that teachers' authority over discipline has with the two student behavior measures has been established, it is important to consider the impact that demographic and institutional factors have on this importance resource for school order and safety. The following analysis draws on Bryk and Driscoll's (1987) finding that the majority of the effect that school size had on student behaviors stemmed from its deleterious effect on communal school organization. Table 6.14 presents the influence of school size and student-teacher ratio on the measure of teachers' authority. The first thing to note is that total school enrollment has a moderately weak negative effect on the degree of teachers' control over and support with school-wide discipline in senior, but not junior, high schools. And, there are significant differences in the effect across categories of locale. For city schools, this is stronger than the association found

among their suburban counterparts and the null association found in rural schools. The effect for town senior high schools is different than that found in suburban and rural senior high schools. In fact, the difference between city and town senior high schools is not statistically significant which means that the effect for both of these groups is closer to -0.31. Thus, one possible source of higher than expected levels of Student Violent Activity in town senior high schools may be due to the indirect negative influence that enrollments have on teachers' discipline authority. The number of students in town

Table 6.14: Relative Effects of Total School Enrollment and Student-Teacher Ratio on Teachers' Discipline Authority

		Total School Enrollment		Student-Teacher Ratio	
School Level		Jr.	Sr.	Jr.	Sr.
Locale	City	-.04	-.34**	.19*	.31**
	Suburb	-.07	-.12*	.08	-.01
	Town	-.06	-.28**	.04	.00
	Rural	-.10	-.08	.18*	.02
Total		-.08	-.22**	.12**	.06*

senior high schools has a deleterious effect on teachers' authority over discipline similar to that of city senior high schools even though they have markedly fewer students.

A second interesting finding is that student-teacher ratio has a positive effect on teachers' discipline authority in both junior and senior high schools. This effect is very weak for junior high schools and for senior high schools the effect, though statistically significant, is extremely weak. There are no differences for junior high schools across the local categories in this relationship. For senior high schools, however, the unexpected effect lies entirely with those serving city areas. Why might an increase in the student-teacher ratio in city senior high schools result in an increase in teachers' authority over

discipline? One possible explanation is that in schools where there are more students per teacher as determined by district policies, more teacher authority in school-wide discipline is an adaptive necessity. They may be more likely to "pull together" and "get on the same page" in order to handle the increased number of students per teacher. And, administrators may be more likely to act as "pressure specialists" (Lipsky 1980), handling students who act out swiftly, thus, backing up teachers on discipline. A second, less likely, explanation is that is that relative student affluence unaccounted for in the model may partially explain the relationship between student-teacher ratio and teachers' authority to discipline. Schools where there can be more students per teacher without causing irreparable disorder are schools where there are high concentrations of students with a stake in behavioral conformity (i.e. high SES students). In such schools, discipline is more likely to be achieved through shared methods and student-teacher ratios can be higher. Unfortunately, the SASS has no way of measuring student affluence, so this second possible explanation cannot be tested. Regardless of the source of this unexpected relationship, city teachers appear to benefit in at least one crucial way in increased students per teacher. But, school size has both direct effects on the level of student misconduct and indirect effects vis-à-vis its weakening of teachers' discipline authority.

The efficaciousness of teachers' discipline authority on reducing student problem behaviors will now be contrasted to the relative influence that school security measures have on student behavior. In keeping with Devine's thesis (1996) on the deleterious effect of school security on school authority structures, this hypothesis will also test the relationship of these efforts on teachers' control over discipline.

Assessment of Hypothesis Five

A) The number of security measures in a school and the presence of a violence prevention program result in a decrease in the level of student misconduct and Student Violent Activity.
B) The presence of school security measures will have a negative effect on the level of teachers' authority over schools' discipline climate.

Table 6.15 presents the standardized regression weights of the school security factor and the dichotomous violence prevention program measure on Student Misconduct and Student Violent Activity. Two things are clearly apparent. In the main, neither increased security measures nor the presence of a violence prevention program has any association to the level of the two student behavior estimates. This holds true even when geographic location is taken into account with two exceptions. The first exception is that increased use of school security measures is associated with an increase in the violent behavior measure in suburban junior high schools. This is found to be statistically different from their rural counterparts where there is no relationship. Second, the only instance where a violence prevention program is associated with a decrease in the level of Student Violent Activity is in suburban senior high schools. This reduction is significant from the lack of effect of these programs in rural senior high schools.

Expanding the analysis to include levels of social capital produces a few significant findings which might be missed otherwise. In no instance is an increase in school security measures associated with a decrease in the level of Student Misconduct or Student Violent Activity (though the path between school security measures and Student Violent Activity is negative and approaches significance in rural schools in "Highest" social capital states). However, school security measures are associated with an increase in student misconduct in "Low" social capital city senior high schools. Their suburban

counterparts in the same quartile of social capital report no relationship. Town senior high schools in "Highest" social capital states report a .28 unit increase in student misconduct while their city counterparts report no relationship.

There are two plausible explanations for this positive association between security measures and student misconduct. The first and perhaps most likely explanation is that schools where metal detectors, video surveillance systems and security guards are present are likely to be schools where there is a problem with disorder to begin with. Even though the model controls for three demographic factors shown to be linked to increased disorder in schools (e.g. percentage of minority students, low SES students and local neighborhood disadvantage), the variable Security Measures is probably expressing additional variance of Student Misconduct not captured by these demographic controls. A second less plausible, but perhaps coexistent explanation, is that in schools with more security procedures, students are more likely to feel labeled as "deviant" or "violent." Researchers have shown that labeling by teachers affects their treatment in classrooms and subsequently alters their academic performance (Rosenthal and Jacobson 1968; Douglas 1964; Brophy and Good 1970; Rist 1970, 1972, 1973). Others (Becker 1963; Hirschi 1969) have also shown that labeling strengthens youths' resistance to dominant value systems and behavioral expectations. While they might not act out violently to resist this label (as indicated by the fact that an increase in security measures does not result in an increase in Student Violent Activity), they may be more likely to resist general procedural prescriptions such as showing up to class on time and behaving in an otherwise decorous manner in hallways and classrooms. Increased security may denigrate the social atmosphere of schools beyond their intended purpose. As presented

previously, contemporary research suggests that stricter discipline and security measures have deleterious effects on student behavior in schools (Metz 1978; Thompkins 2000; McFarland 2003; Arum 2004). Among her sample of school district safety officers, Garcia (2004) found that only 32 percent surveyed though that metal detectors were effective at preventing violent crime. Though cross-sectional in nature, the findings presented here support the thesis that school security efforts not only are ineffective in reducing student problem behaviors, but perhaps encourage them.

The presence of a violence prevention program (a dichotomous variable with '1' indicating that a school has one in operation) is associated with a reduction in violent behavior only in suburban senior high schools. Here, a violence prevention program is associated with a small (-.11, $p<.01$) decrease in Student Violent Behavior. This is a statistically significant difference from the null effect indicated for their city, town and rural senior high counterparts. When the categories of social capital are included, this total effect for suburban senior high schools is seen to lie with "High" and "Highest" social capital states. While over all, violence prevention programs are more prevalent in junior high schools, these have no association except for those city junior high schools in "Highest" social capital states. This moderate decrease is statistically different from the null relationship found for their suburban and rural counterparts. Violence prevention programs appear to be most effective for junior high schools in high social capital cities and suburban senior high schools.

Part B of Hypothesis Five tests Devine's (1996) thesis the increased school

Table 6.15: Standardized Regression Weights of School Security Measures and Violence Prevention Programs on Student Behavior, Junior High Schools

		Student Misconduct				Student Violent Activity			
Locale	Social Capital	School Security Measures		Violence Prevention Program		School Security Measures		Violence Prevention Program	
		Jr.	Sr.	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.
Lowest	City	-.05	-.03	-.08*	-.08	-.02	.05	-.05	-.11
	Suburb	.00	.08	.00	-.04	.09	.12	.04	-.08
	Town	.07	.04	.02	.06	.05	.05	-.01	-.01
	Rural	.09	.06	-.02	-.09	.01	.00	.07	-.03
	Total	.10†	.02	.02	-.01	.07	.06	.11	-.02
Low	City	.18	.25**	.06	-.01	.03	.09	.04	-.01
	Suburb	.00	-.01	.12*	.09	.02	.06	.03	-.05
	Town	.07	.04	-.19	.13	.04	.14	.08	-.05
	Rural	.22	.02	-.06	.00	-.08	.01	-.02*	.03
	Total	.08	.06	.03	.04	-.03	.06	.06	-.01
High	City	.22*	.18**	.03	-.02	- .10	.01	-.08	-.01
	Suburb	.02	.13	.06	.00	.07	.15*	-.12*	-.18*
	Town	N/A	.05	N/A	.01	N/A	.21	N/A	.12
	Rural	.00	.03	-.01	.05	.04	.27**	.03	.13
	Total	.09	.08	.04	.00	.00	.15	-.05	.02
Highest	City	-.05	-.15	-.12	.27*	-.11	.00	-.24**	.17
	Suburb	.06	.05	.02	.15**	.11	-.10	.05	-.31*
	Town	.13*	.28**	.00	.00	.02	-.10	.08	-.06
	Rural	.10	.03	.05	-.03	-.08†	-.13	.09*	.10
	Total	.03	.05	.06	.05	-.04	-.10	.07	.01
Locale (Total)	City	.08	.07	-.08	.04	-.02	.07	-.03	.00
	Suburb	-.03	.01	.09*	.07	.09*	.09	-.01	-.10**
	Town	.02	.01	.06	.05	.09	.10	.04	.00
	Rural	.03	.00	.03	.00	.02	.02	.11	.04
	Total	.05	.01	-.02	.03†	.01	.06†	.02	-.01

* p <.01 ** p <.05 † .06 > p < .10

security has a deleterious effect on the authority structure of schools. There are no findings to support this theory among the junior and senior high samples. On the one hand, this may suggest that Devine's theory is incorrect. School security measures may

not have much to do with the organic authority structure of schools. Perhaps these two elements operate in such a fashion that they rarely overlap. Teachers and administrators may make (or fail to make) decisions regarding student discipline independent of agents of formal security. Students come face-to-face with school security at the school door, but only for a brief period of time. Only in the worst instances do student engage with security.

On the other, there may be limitations with how this theory was operationalized. The zero-order correlation for school security measures and Teachers' Authority was in the expected direction (-.127, $p<.001$), but this is a rather weak relationship. Both variables do, however, have significant relationships to a number of key variables, most notably school size and percent minority concentration suggesting a certain degree of variable quality. In addition, a moderate degree of the variability (e.g. R-Square) in the school security measure is predicted by other independent variables in the model. For junior high schools, this ranges from a low of eighteen percent for those in rural and town areas to twenty-three percent for those in city areas. The R-Square is even higher for senior high schools with a low of nineteen percent of the variability in the security measure predicted for those in city areas to a high of thirty-five percent in rural areas. Capturing a respectable degree of an independent variable's variance is a welcome, but not a necessary, condition for a structural equation model. Another factor may rest with the use of cross-sectional data in attempting to capture what may be better understood as a longitudinal phenomenon. Further research might use students' perceptions regarding the effect of school security on school authority structures similar to Arum et al.'s (2004) study of how students' perception of rule fairness was linked to academic performance.

Assessment of Hypothesis Six

An increase in parental involvement at school results in:
A) A decrease in student misconduct and violent behavior,
B) An increase in Teachers' Discipline Authority, and
C) An increase in the number of security measures and the likelihood that a violence prevention program is in place.

Parental involvement is often regarded as a crucial contributor to students' success in school. Parents' involvement is usually measured as the ways in which they stress academic achievement, provide adequate supplies and a place to do homework and generally motivate their children to do well in school. These elements are crucial, but parents' physical presence and involvement in school activities have not been adequately examined for their impact on student behavior. Participation in parent-teacher conferences, workshops, and general volunteering is one way in which schools can be made more like communities. Communication between parents and teachers is crucial for the "intergenerational closure" that Coleman (1987) and others (Bryk and Driscoll 1988) found to be a characteristic of well functioning schools. And, this can be enhanced if parents are physically present at their children's school.

Table 6.16 demonstrates that overall parental involvement has a very weak, yet significant, relationship to the level of student misconduct in junior high schools and to Student Violent Activity in both junior and senior high schools. But, this effect is not uniform across geographic location. Suburban junior high school teachers report a decrease in student misconduct while their city counterparts report no decrease. Suburban and rural senior high school teachers report a small decrease in student misconduct as the level of parental involvement in their school increases; their town counterparts report none. An encouraging finding is that even though parental

involvement has no impact on student misconduct in city junior high schools, it does have a negative effect on the level of Student Violent Activity as reported by teachers.

Table 6.16: Effect of Parental Involvement on Student Behavior Measures and Teachers' Discipline Authority

		Student Misconduct		Student Violent Activity		Teachers' Discipline Authority	
School Level		Jr.	Sr.	Jr.	Sr.	Jr.	Sr.
Locale	City	.02	-.02	-.11*	-.03	.16*	.10
	Suburb	-.13**	-.08*	.00	-.04	.06	.02
	Town	-.06	.03	-.01	-.03	.16*	.05
	Rural	-.06	-.07*	-.11*	-.13**	.15	-.06
Total		-.06*	-.03	-.05*	-.06*	.12**	.02

* $p < .01$ ** $p < .05$ † $.06 > p < .10$

The only statistically salient contrast in this effect exists between city junior high schools and their suburban counterparts who report no decrease. The lack of association between Parental Involvement and Student Violent Activity in suburban junior high schools when compared to their city counterparts may have two sources. First, it could be a result of the fact that Student Violent Activity is considerably lower in suburban junior high schools. Thus, increased parental involvement may have little effect. Second, parental involvement is lower in city junior high schools. Thus, an increase in parental involvement is statistically "worth" more in these schools. Because parental involvement in suburban junior high schools is higher, the effect may already predominate. Because the only contrast exists between city and suburban junior high schools in this effect suggests that city, town and rural junior high schools report a similar, and very weak, association between parental involvement and Student Violent Activity when compared with each other.

Rural senior high school teachers report the greatest decrease in the level of Student Violent Activity compared to their suburban and city counterparts as the degree of parental in-school involvement increases. They report a .13 unit decrease in the level of Student Violent Activity while the latter two categories report no decrease. It should be noted here that parental involvement is consistently higher in junior high schools which might help explain the stronger negative relationship.

While schools' geographic location appears to matter for the relationship between parental involvement and student behavior, social capital does not. That is, being located in a higher social capital state does not bring a greater return on parental involvement. This is interesting in that the measure of parental involvement aggregated to the state level was found to correlate moderately with states' levels of social capital (.467, $p<.01$). This suggests that the effect of parents' involvement in school, though quite weak, has more to do with school location as opposed to social capital regions. The positive influence on student behavior that parents can have does not depend on the social capital environment, at least at the state level.

Coleman and Hoffer's (1987) theory of intergenerational closure and social capital as elemental to the effectiveness of Catholic schools' ability to bond at-risk urban students school suggests that parental involvement may also strengthen teachers' authority to discipline. The third column of Table 6.16 presents the association that Parental Involvement has with Teachers' Authority over Discipline in junior and senior high schools. A one-unit increase in the level of parental involvement in junior high schools is associated with a .12 unit increase in Teachers' Authority. There is no difference across geographic location, although the coefficients appear to differ in terms

of strength and significance. Parental Involvement has no relationship to Teacher Authority in senior high schools. Parental involvement is directly related to the way in which discipline climates function in junior, but not senior, high schools. This confirms, in part, previous research that has shown that the functional nature of Catholic schools partially hinges on their smaller size and relatively higher parental involvement in the day-to-day community life of these schools. Not only does this work for Catholic schools, but this also works, albeit weakly, for public junior high schools. This strengthens the argument that encouraging parental involvement not only at home, but in their children's schools, is an effective way of reducing alienation and resistance among youth. Parental involvement may not have an effect in senior high schools due to their relatively bureaucratic nature. Perhaps junior high schools are more sensitive to communal functioning than senior high schools where students are preparing for more technically oriented and adult lives. Student resistance to parent involvement at the senior high school level may also be greater, with many parents only becoming involved in response to their children being in trouble. A central policy implication would, therefore, be to find unobtrusive ways for more parents of senior high school students to be involved in their children's schools.

Per Hess and Leal (2004), does parental involvement have any positive impact on the presence of school security measures or violence prevention programs (part C of Hypothesis Six)? Table 6.17 demonstrates that in junior high schools, the more parents are reported to be involved in on-site activities, the fewer security measures are present. This is not the case for senior high schools. The negative association that Parental Involvement has to Security Measures in junior high schools may perhaps be interpreted

as a protective influence that parents have on student behavior. Where parents are more physically present in schools, this may strengthen a school's communal atmosphere and also its discipline climate (as presented above), reducing the need for security measures. Parental presence in junior high schools acts as an organic security measures. This partially contradicts Hess and Leal's (2003) finding that school districts with more

Table 6.17: Effect of Parental Involvement on School Security Measures and Violence Prevention Programs

		Security Measures		Violence Prevention Program	
School Level		Jr.	Sr.	Jr.	Sr.
Locale	City	.09	.02	.04	.15**
	Suburb	-.10*	-.04	.01	.12**
	Town	.01	.05	.13*	.13**
	Rural	-.13*	.01	.25*	.06
Total		-.07**	.01	.09**	.11**

* $p < .01$ ** $p < .05$ † $.06 > p < .10$

motivated parents have increased security measures. It does so partially because the unit of analysis utilized here is different. As Garcia (2004) points out, decisions for the use of security measures like video monitors and police are most often determined at the school district level. That increased parental involvement is associated with decreased use of school security measures in all junior high schools in the sample suggests, however, that parents may also wield an indirect influence at the school level on school security. The fact that this occurs for junior high schools but not senior high schools may also point to the fact that junior high schools tend to operate more like communities than do their larger counterparts.

On the other hand, increased parental involvement is associated with a small but significant increase in the likelihood that a school will have a violence prevention program in both junior and senior high schools. When compared to their city and suburban counterparts, junior high schools in rural areas report a 25 percent increase in the likelihood that a violence prevention program will be in place.49 All senior high schools regardless of geographic location demonstrate a similar increase in the likelihood that a violence prevention program will be in place as the level of parental involvement increases. This finding improves on Hess and Leal's (2003) research by differentiating between the effect that parental involvement has on school security measures and violence prevention programs.

Discussion

The study hypothesis sought to better explicate the complex dynamics which contribute to student misconduct and violent behavior drawing from relevant research and theories regarding the demographic and institutional conditions which shape these problems. The "broken windows" problem appears to be more serious in junior high schools in urban and suburban areas when compared to their town and rural counterparts suggesting that increasing attention to student discipline may be more warranted in these schools. Junior high students are at a crucial point in their social and moral development, a point that bridges childhood and the adult roles they will assume. Learning pro-social behavioral skills such as appropriate ways to deal with frustration is vitally important at this stage of their school career. But, one of the difficulties faced by junior high aged youth in this process is the abrupt change they face as they move from the communal atmosphere of elementary school to the more bureaucratic world of junior high schools.

They may also experience a very large difference in the institutional culture and discipline climates of their schools. While this transition must occur at some point, the role that a lack of continuity between schools and school philosophies play in school disorder deserves further attention. Perhaps school systems should consider a more comprehensive plan for student discipline, one which is carried through from one school level to another. The relative benefit of schools with non-traditional grades or mixed grade classrooms should be examined. These might provide a source of continuity or community lacking in those schools that have traditional grade structures.

The analysis of the demographic sources of school disorder and violence provided some unexpected insights. Schools in towns experienced the most significant increase in Student Violent Activity as the percentage of minority students increased. Minority Concentration was not a significant factor for city senior high schools' level of violent behavior. Student Poverty was a more salient predictor for city senior high schools as well as those schools in the junior high school sample. The primacy of class over race in predicting Student Violent Activity levels in city senior high schools may have to do with the fact that city senior high schools have comparatively high minority concentrations. Therefore, student class, as a proxy for the mechanisms of social disorganization which contribute to violent behavior, has more statistical variability in those locations with high minority populations like city senior high schools. This may suggest that the deleterious effects of poverty are ultimately more important than race in predicting levels of student unruliness. For most samples, however, teachers' perceptions regarding student unruliness is more determined by the racial composition of the students they teach than by their socioeconomic background. The percentage of students receiving free or

reduced priced lunch has been faulted as a measure of student poverty. Results here support these doubts; this suggests that future studies and data collection efforts should strive for better measures of students' socioeconomic status.

The analysis of hypothesis two also demonstrated that level of disadvantage in a school's local neighborhood had a very small association with student misconduct in both school samples. Neighborhood Disadvantage only demonstrated a positive relationship to the level of student violence teachers reported in junior high schools. This suggests that junior high schools are more tied to the dynamics of social disadvantage than senior high schools. This reflects Welsch et al.'s (1999) findings that for Philadelphia junior high schools in their sample, local disadvantage is more important than imported disadvantage for predicting students' misconduct. That is, controlling for student level characteristics, junior high schools in worse neighborhoods have more problems with disorder. But, neighborhood disadvantage had no relationship to either the level of student misconduct or violent activity in senior high schools, a factor not addressed by Welsch et al. (1999). This may not be surprising considering that senior high schools draw from much larger catchment areas.

By simultaneously controlling for student demographics and neighborhood effects, this research has addressed the limitations of previous studies that have only considered demographic characteristics at the school level. Schools are influenced by the neighborhoods in which they are located. This occurs either directly in how they influence the behavioral orientations of students in attendance, or as a proxy for differential resource allocation. Future research on student outcomes and behavior should not assume schools to be islands unto themselves.

Caution should be taken in concluding that race is the predominant sociodemographic factor in student misconduct and violence levels in public schools. Social scientists have long struggled with disaggregating the effects of race and class on outcomes. Race and the measure of class are strongly correlated in the data (.582, p <.01). And, in the SEM models, the percentage of minority students and those receiving free or reduced priced lunch are both highly correlated with each other and with the measure of neighborhood disadvantage. It should also be reiterated that the overall level of Student Violent Activity is low nationally as compared to misconduct. The mean value of the Student Violent Activity scales is 2.44 out of a score of 0 to 8. The distribution of the unstandardized scale is skewed towards the low end and it has a standard deviation of 1.09 suggesting that most of the schools are clustered close to the mean. Thus, an increase in this measure of student violence does not represent as dramatic an increase as that of the misconduct scale. The student misconduct scale has a higher mean value (3.63 out of a nine-point scale) and is more widely dispersed around its mean with a standard deviation of 1.6. Thus, a fraction of a unit increase in the misconduct scale, while perhaps qualitatively not as serious, "covers more ground" statistically speaking. Despite these caveats, it appears that an increase in the percentage of minority students in a school brings with it more student misconduct and in some instances increased levels of violent behavior above the other sociodemographic variables. Continued attention to the sources of minority youth resistance and violent behavior in schools, particularly in town schools, is highly warranted.

In the assessment of hypothesis three, it was discovered that school size and student-teacher ratio had unique direct effects on both of the student behavioral measures.

An increase in the student-teacher ratio in city senior high schools was found to have a larger association with both the level of student misconduct and violent behavior when compared to the suburban, town and rural samples. This is perhaps not a surprising finding in that city senior high schools have higher student-teacher ratios than their counterparts. Contrary to the work of others (Gottfredson and Gottfredson 1985; Hellman and Beaton 1989; Battistich and Hom 1997), this study does find that school enrollment size is associated with increased levels of student problem behaviors as reported by teachers net of student demographics. But, like these researchers, school size was found to weaken an element of communally school organization – in this case, teachers' authority. Moreover, an increase in the percentage of minority students – as a proxy for student disadvantage – is associated with a decrease in this authority. While this study focused only on one aspect of communally organized schools, the results appear very similar: larger schools and schools that serve larger number of students from disadvantaged backgrounds have weakened normative closure. This research expands on their work, however, to include an analysis of higher grade levels and schools in different locations. This suggests that attending to the mediated effects of school size and student disadvantage on the social aspects of school is relevant to research at all school levels and all locations.

It should be pointed out that the association of school size to student misconduct rivals that of minority concentration in the senior high school sample. Senior high teachers reported a .27 unit increase in student misconduct as the percentage of minority students increased. For school enrollment, this effect was .23. For junior high schools where student poverty was found to be more important than race, an increase in school

size resulted in a .16 unit increase in student violent activity. Student poverty only resulted in a .08 unit increase. Thus, relative to the demographic forces which shape student violence, school size is an extremely important factor.

Because school size is also a major contributor to student misconduct, and in some cases, violence, the greater level of unruly student behavior in schools with high concentrations of minority students should be partially understood as a function of differential resource allocation. On average, schools which have over a forty percent minority student population have one hundred more students than schools with less than forty percent minority students. While the idea that minority and poor students may tend to be more unruly because they attend larger schools where there are fewer opportunities for bonding is not new, this research provides definitive statistical proof of the indirect cost that differential resource allocation has on student behavior. Convincing politicians and policy makers that urban schools should be given relatively greater resources is not an easy task and school financing policies have been slow to address city-suburban differences.

While school size was found to have multiple deleterious effects on student behavior, there is ample evidence that attending to staffing ratios is also warranted. This is not a factor considered by past research on school disorder. This somewhat confounds the issue of whether smaller schools are really necessary for improved student behavior and achievement. Perhaps some of the deleterious effect that large schools have on student outcomes is by virtue of their higher student-teacher ratios. While not discussed in detail, a pronounced positive association was found between School Size and Student-Teacher Ratio. In real terms, an increase in school size by one standard deviation results

in an average increase of 4.5 students per city teacher.50 The resources that are being spent on reducing the size of schools might be better spent on reducing the number of students teachers must teach. The way in which staffing ratios determine the manner in which teachers control and manage students' behavior may understandably be more important than the overall number of students in a school.

One stark example of the effect that lack of resources and appropriate staffing can have on school safety and performance in urban minority schools emerged a few months before this was written. In the first two months of the 2004-2005 school year, students had set an unprecedented number of fires in Baltimore, Maryland schools. While most of the fires were small and caused little or no damage or injury, they appeared to be deliberately set by students in order to have the school day cancelled. Apparently one of the root sources of this disorderly and dangerous behavior was the fact that the Baltimore County school system had responded to a financial crisis by increasing class sizes, cutting staff and teacher positions and reducing counseling and extracurricular programs, particularly in the city's poorest schools (Associated Press 2004). With the loss of supervision and pro-social activities available to students also comes a loss of moral authority in schools. Bebe Verdery, the director of education at the American Civil Liberties Union of Maryland, contended that "[w]hen you combine [loss of supervision] with increased class sizes, the schools seem much less capable of controlling the violence and fire setting" (Associated Press 2004). In response to this crisis, "the school board voted last month to spend $1.5 millions to let 15 schools hire 37 more hall monitors and 34 more security officers" (Associated Press 2004). The hiring of more security agents,

the arrests of students caught setting fires and the stationing of fire fighters in Baltimore schools might not have been necessary if its schools had been properly staffed.

Only a few sources of student behavioral issues were accounted for here. There are many things that can contribute to student behavioral problems and research has only begun to explore the multi-leveled nature of this problem. This research did, however, find teachers' discipline authority to be negatively associated with their reports of student misconduct. In some instances, they also reported lowered levels of student violent behavior as well. All junior high school teachers report lowered levels of student violence regardless of locale as their authority over discipline increased. This was also the case for senior high school teachers in town and rural areas and city teachers in high social capital states. It might not be surprising that as teachers' authority over schools discipline climate increases they might have an influence on the small things. That in some instances they report lowered levels of student violent behavior, net of the direct and indirect effect of other factors, suggests that their influence over the social and moral climate of their schools can also affect the big things. Persuading students not to cut class or to interrupt is one thing; creating an environment where they resist physical confrontation and other acts of aggression is another.

This is an important finding as the majority of attention on improving school order and safety has emphasized school security and add-on violence prevention programs. These were found to have very little relationship to the student behavioral measures. Disregarding for the moment that the operationalization of the relationship between school security and student behavior might be improved upon, the findings here support Gottfredson et al.'s claim (2000) that schools lack consistency not only in the

execution of such add-on programs, but also schools' general discipline climate. The lack of a consistent discipline environment is detrimental to a school's ability to create normative closure, a crucial aspect of school bonding and improved student behavior. Teachers' authority over school discipline is one aspect of a school discipline. Other factors may be students' and parents' input into how schools operate on a daily basis. One junior high school in Florida is addressing the issue of inappropriate touching and bullying in hallways with a comprehensive "broken windows" program (Niesse 2004). The new discipline system put into place at this school is a zero-tolerance for inappropriate touching and vulgar language; it also entails quicker notification of parents when students misbehave. Teachers' empowerment regarding school discipline procedures was demonstrated to have negative associations with their reports about student behavior, suggesting that this resource should be primary in research and policy agendas regarding school order and safety.

One relationship bears examination for its implications that increased policing and security in city junior and senior high schools has more to do with racial profiling or "labeling" (Becker 1963) than actual need. An increase in the percentage of minority students is associated with varying increases in the Security Measures variable (e.g. police, metal detectors and video surveillance) when city schools are compared to their non-city counterparts. These differences are noteworthy insofar as an increase in minority concentration was found to have no relationship with the level of Student Violent Activity in junior high schools across categories of geographic location. And, only a general association between minority concentration and student violent behavior in senior high schools was observed.[51] If increased minority concentration should be

associated with similar increases in violent behavior when city high schools are compared to their suburban, town and rural counterparts, we should also expect a similar association in the use of school security. Table 6.18, however, shows that the relationship between minority concentration and the variable measuring school security differs according to geographic location. In general, an increase in minority concentration in junior and senior high schools is associated with a small (.22, p<.01 and .26, p<.01, respectively) increase in the use of security measures. (This difference approaches statistical significance at 1.7, but it should be assumed that when both junior

Table 6.18: Association of Minority Concentration with the Extent of School Security Measures

		School Security Measures	
School Level		Jr.	Sr.
Locale	**City**	.45**	.41**
	Suburb	.02	.09
	Town	.21**	.30**
	Rural	.11*	.28**
Total		.22**	.26**

and senior high schools are compared, the association is closer to .24.) For city junior high schools, however, the association is much stronger – about a half a standard deviation increase (.45, p< .01) in the use of security measures. Their rural junior high counterparts report a small increase (.11, p< .01) and their suburban counterparts report no increase. The city senior high school sample indicates an association similar to the junior high sample (.41, p<.01). This association is for city senior high schools is statistically different from their suburban (no relationship), town (.30, p<.01) and rural (.28, p>01) counterparts.

These figures indicate that security measures are used more heavily in city schools as the population of minority student increases despite the fact that minority student concentration is not associated with any significant increase in violent behavior. While this model uses cross-sectional data and, therefore, causality can only be implied, the fact that this difference exists lends some credence to the claim that security efforts in urban schools are largely based on race, and not the poverty status, of students.

One encouraging finding was that parental involvement was found to have multiple negative associations with student behavior as reported by teachers. With increased levels of parental involvement, Student Misconduct was reported to be lower in junior high schools and Student Violent Activity was reported to be lower in both junior and senior high schools. While the association for junior high schools was more pervasive across geographic locations, for high schools this effect was confined only those in rural areas. In that the mean values of parental involvement are quite similar across location, the effect of intergenerational closure (Coleman and Hoffer 1987) on student behavior in senior high schools is stronger in rural areas. This may not be surprising because without the logistical strains and cultural heterogeneity of urban areas, social networks may be denser and normative closure may be higher in rural areas. Therefore, parental involvement may have more of an influence on the discipline climate of schools. Furthermore, the bureaucratic nature of schools in urbanized areas may weaken the effect of parental influence on school discipline climates. This was seen in the larger deleterious effect that school size had on teachers' reports of their authority over discipline in city senior high schools. (School size was not assumed to have a relationship to parental involvement in this research). In addition, teachers and

administrators in city schools may be wary of parental encroachment on their authority and tend to divert parents' attention to other issues.

In general, parental involvement had a positive relationship to the level of Teachers' Authority in junior high school, but no association in senior high schools. Again, this may be demonstrating that junior high schools may function more like communities than their senior high counterparts. Perhaps intergenerational closure (Coleman and Hoffer 1987) is more of a natural product of junior high schools. Where parental involvement was shown to have an effect on senior high school discipline climates was on the prevalence of violence prevention programs. Perhaps senior high school administrators and teachers welcome (or, perhaps, divert) parental involvement in schools to such things like violence prevention programs. This finding is a refinement of Hess and Leal's (2003) research regarding parental mobilization of school resources.

Teachers' authority over discipline and parental involvement was found to have negative associations to student behaviors while school security measures and violence prevention programs were found to have very little. This suggests that the communal aspects of schools should be an important consideration for addressing school disorder. Contemporary attention to school size, particularly in urban areas, is a welcome acknowledgement of the fragility of school social environments. Schools are also experimenting with better communication with parents and in some cases required parental participation. But, increasing school security is the modus operandi of school administrators, parents and policy activists who fear, perhaps far more than they should, about violence in their schools. On the one hand, increased surveillance and profiling ignores the wider structural and cultural issues which contribute to student resistance and

violence. On the other, the speed and expense at which these efforts have been implemented resembles a *fiat accompli*: because of the risk of school violence, school security is the natural way to address the problem. There has been very little examination of the intersection of public schooling and the criminal justice system around this issue. This may be a missed opportunity to discuss the nature of community, the purpose of schooling, and the role of teachers within a wider cultural landscape that exalts competition over cooperation. This research has sought to address this gap. The concluding chapter couches these findings in terms of their wider significance for social reproduction and control as well as offers concrete policy suggests that are sensitive to the institutional conditions of public schools.

CHAPTER SEVEN
CONCLUSION

Structural inequality has pervasive effects on parents, communities and schools in the process of socializing youth to normative and pro-social behavior. When youth bring more needs to school, teachers and staff must spend more energy on socializing, safeguarding and educating them. At the same time, the basis of schools' legitimate authority over students has shifted radically in the past half century. In many districts, parents, local communities and schools were closely bound to each other and great stock was put in teachers' roles as intellectual and moral educators. As teaching and schooling has become increasingly bureaucratized and communities have become more distant from this crucial social institution, traditional and moral forms of authority have increasingly been replaced by legal authority. This has opened up challenges by relevant (and sometimes irrelevant) stakeholders. At the same time, youth are increasingly exposed to greater repertories for resistance and violence through various forms of media and have become aware that secondary education holds diminishing occupational and material rewards. While general disorder in schools is more of a persistent problem than violence, oppositional peer cultures and the adaptive strategies of gangs have widened in influence. These conditions mean that schools and teachers have fewer social resources to bond youth to schooling. The characterization of schools as despotisms "in a state of perilous equilibrium" (Waller 1932:22) might be more applicable now than in Waller's time (Arum 2004).

Schools and school districts have responded to the threat of violence with a vast array of security measures, violence prevention programs and strictly enforced codes of conduct such as zero tolerance policies. This study has found that school security measures and violence prevention programs are associated with few positive gains in student behavior. Rather, teachers' authority over discipline and parental involvement as facets of communally organized schools were found to have a protective influence on student misconduct and violent behavior. In some instances, increased parental involvement was associated with a *decrease* in the use of security measures. As student misconduct was found to be significantly associated with student violent behavior as per the "broken windows" theory of crime (Wilson and Kelling 1982), teachers' authority has the potential for indirect and direct influence on students' violent activities. It is an unfortunate fact that the risks of letting the small things go are greater today than they ever have been, making the broken windows approach to school safety an intuitively appealing one for school officials.

Public schools as social institutions are not well adapted to dealing with the most disruptive or dangerous of their clientele. Certainly schools are responsible for making sure knives and guns are not brought to school and that gangs do not propagate fear. But, the police-like school safety measures fit awkwardly with the humanitarian goals of education. The easiest and most available response to violence or the threat of violence in schools appears to be increasing police and security presence rather than addressing either the wider social and economic issues or the institutional factors which affect (positively or negatively) the disorder promoted by student misconduct. The pursuit of security in schools may be achieved at the cost of understanding how these wider forces

shape this problem and how schools as social institutions best function to protect against negative social influences. Institutional characteristics like school size and student-teacher ratios were shown to have worrisome associations with student behavior and teachers' authority over discipline. It should be no surprise that in large schools where teachers typically are responsible for more students and school community is weaker, increased disorder is more likely. As a facet of communal school organization, teachers' authority over discipline is vulnerable to organizational and demographic conditions in schools, supporting Ingersoll's suggestion that teachers' work is disempowered by its bureaucratic nature (2003).

Some experts (Devine 1996; Arum 2004) have suggested that school security weakens the moral effectiveness of schools, exerting a particularly negative effect in urban schools. This study's quantitative analysis is found little support for this theory, except for the fact that increased percentages of minority students was found to be associated with a disproportionately higher rate of school security in urban junior and senior high schools. Increased security was not found to have any association with the level of discipline authority teachers report. But, the radically increased school security and violence prevention activities in schools may have deleterious effects that may take shape over time. The "panoptic gaze" (Foucault 1995) of school security may be criticized as a way to identify "problem" youth at an earlier stage and channel them into the criminal justice system. This identification process often leads to the development of alternative education settings for youth who fall "out of the education mainstream" (U.S. Department of Education 1996) by virtue of being expelled, suspended or adjudicated. Could this be the natural expansion of the "prison-industrial complex" (Schlosser 1998)?

Is this method of controlling school disorder and crime analogous to using prisons as crime control?

Perhaps the manifest destiny of bureaucracy that Max Weber was so concerned about is reflected in the process by which the criminal justice system is now encroaching on schools and school systems. The point at which theorists and researchers speak of a "school-prison industrial complex" may not be far off. This process may be accelerated by the effect of labeling (Becker 1963). The use of Tasers by police is one such escalation of the physical force being used by security on students. This is in addition to the sense of labeling students may experience as they walk by metal detectors, are monitored by video cameras, and shadowed by security personnel.

It should be reiterated that violence among youth in schools, as in the wider society, decreased dramatically starting in the late 1990's. But, there are still schools that face elevated levels of student violent activity and intensive efforts to address this problem continue. New York City's intensive policing efforts have recently been credited with substantial reductions in crime and violence in several schools. However, it remains to be seen whether this is only a temporary reduction as schools are removed from this intensive policing program. It also remains unclear whether these policing efforts were accompanied by attempts to address institutional factors like size or a weakness in the discipline climate of these schools – the social, administrative and moral fabric helping shape students' behavior.

How applicable is the role of teachers' moral authority as emphasized by Durkheim in how the contemporary U.S. educational system functions? It can be argued that contemporary U.S. schools face far more challenges and diversified responsibilities

than the French education system that Durkheim wrote about over a hundred years ago. It is in the service of reproducing a far more complex society, both in terms of demographics and occupational structure. Schools still play a crucial role in bridging the gap between the affective life of families and the requirements of political citizenship and occupations that youth eventually assume. But, the U.S. educational system has operated for quite some time like a large, impersonal and centralized bureaucracy – one which resembles the economy's corporate heart. This is an organizational strategy which appears to supplant the goals of socialization for citizenship and pro-sociality for one which exalts competition and exclusion. In this context, it may not be surprising that teachers' report very little control over their work process (Ingersoll 2003).

The cultural forces that shape how teachers and students relate to each other within schools need further examination. Criminal justice approaches to school security may be having a powerful influence on how students experience the authority structure of schools. The culture of suspicion, surveillance and profiling which video cameras, police officers and metal detectors engender might make students even less likely to listen to their teachers. As public education has become devalued in both its procedure and promise, students may be encouraged to push the limits of school authority up until the point at which police are involved. The threat of police actions such as Tasering may act as a deterrent, but it undermines less drastic punishments like detention and does little to support the protective influence of school community and informal mechanisms of social control. Thus, a question which remains to be answered is how the increase of criminal justice-like security apparatuses in schools will shape the ways in which social order is reproduced for future generations. The weakened efficacy of schools as social

institutions, perhaps reinforced by increased attention to security, may alter the basis on which successive generations of youth are bonded to pro-social goals and behavior. The weakening of the informal control mechanisms of schools as communities means that students behave "properly" only to avoid strict sanctions.

Limitations of the Study

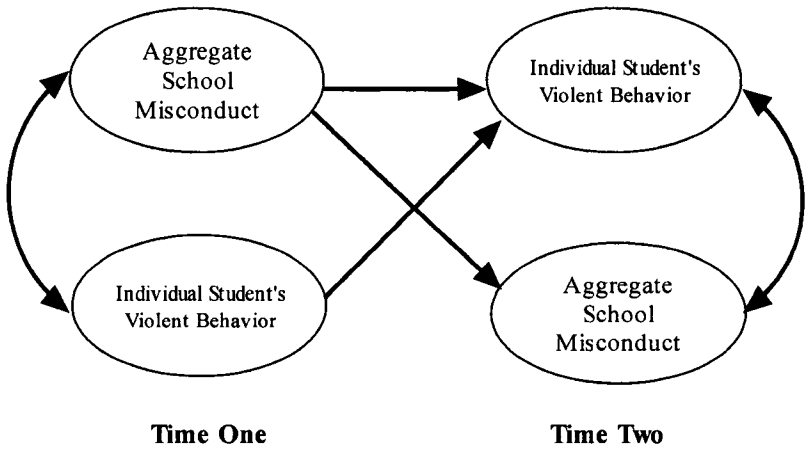
The first set of study limitations stems from the data used. The benefits of this truly nationally representative sample of schools and teachers is that is provides detailed information on the extent of student behavior, security efforts and teachers' authority over discipline. But, these benefits are limited by the fact that the data does not provide detailed information on individual students, provides responses from only a relatively few teachers per school, and is cross-sectional. Regarding the first limitation, questions about how student-level correlates of student anti-school and anti-social behavior interact with teacher and school-level variables cannot be answered. It is quite likely that student characteristics, such as being from a single-parent family, having low academic achievement, or being from a particular race or gender interact with organizational features of schools to increase students' unruliness. The three socio-demographic predictors used were shown to be statistically significant predictors of teachers' reports of student misconduct and violent behavior, but do not fully capture the cultural and social dynamics which contribute more directly to these issues.

The influence of teacher quality on either teachers' authority or individual student behavior could not be addressed due to the school being the unit of analysis. Perhaps teachers who have more experience or education not only claim more authority over discipline, but may be more effective at disciplining their students as well. Preliminary

analysis suggested that aggregate measures of teacher quality such as level of education, certification level and years of teaching experience were not significant predictors of these study variables. Other studies have found that these qualities are not good measures of teacher quality (cf. Ingersoll 2002; Hanushek and Rivkin 2004). The more likely scenario, however, is that these aggregate measures are too far removed from the actual students who are affected by these qualities. This research does uncover some unique information about the mediated nature of school socio-demographics and the powerful influence that teachers have over student behavior, but future studies that focus on the reciprocal effects of school, teacher and student qualities on students' behavior should also involve characteristics of individual students and teachers.

The third limitation presented by the data results from its cross-sectional design. Thus, expressions of causality of one study variable on another were avoided. For instance, the first hypothesis suggests that greater levels of misconduct in a school lead to more violent behavior among students. For a "broken windows" causality to be truly measured, longitudinal data would be used to measure the effect of aggregate student misconduct in a school at Time One (T1) on an individual student's violent behavior at Time Two (T2) *controlling for* the effect of that individual student's violent behavior at T1 on their violent behavior at T2. Concomitantly, aggregate misconduct at T1 would also need to predict aggregate misconduct at T2 and each of these behavioral measures would be allowed to covary within each time point. A diagram of this suggested causality is presented in Figure 7.1.

Figure 7.1: Proposed Longitudinal Model of Student Misconduct on Student Violent Behavior



A second example in the limitation of the SASS cross-sectional design lies with measuring the influence of school security measures on student behavior. Because the data measures the effect at only one point in time, it is difficult to report that school security measures have no effect because the effect may already be present. Cross-sectional data does, to an extent, approximate causality in so far as it considers the effect of a treatment variable on a dependent variable across a sample. For instance, the computation of the effect that violence prevention programs have on the level of student violent behavior in a cross-sectional sample is the difference in the level of violent behavior where one was present compared with the level of violent behavior where it was not. However, with a specific treatment like security measures or violence prevention programs, this lack of longitudinal data makes it difficult to conclude that they have no uniform influence on the level of student behavior.

Research and Policy Implications

Four implications for educational policy emerge from this study. First, the results of the detrimental direct and indirect effect of school size on student behaviors reinforce

current understanding that large schools have multiple effects on student outcomes. Wider efforts to reduce school sizes such as the school-within-a-school movement, the establishment of charter schools and recent efforts by the Bill and Melinda Gates foundation to support the creation of small high schools may bring noticeable gains in the reduction of student misconduct directly, and violent behavior indirectly in schools. But, these projected improvements are likely to be particularly important in urban districts where there is a preponderance of large, comprehensive high schools. Researchers and policy makers should maintain a close watch on the effects of creating smaller schools in urban areas as they may provide important evidence that the size of school communities, resources and staffing, and parental engagement matter. While increased spending would be necessary to achieve these goals, future gains in terms of student achievement and worker productivity and the reduction in spending on security measures and justice system interventions could make such efforts a prudent investment.

Second, the detrimental effect that school security may be having on student performance and behavior also needs to be further explored with more comprehensive data. Schools need to be secure places where students feel safe and ubiquitous security measures and personnel may create an atmosphere that is detrimental to the social and moral climate of schools. It is difficult to suggest that these measures should not be used considering the legacy of the Columbine era, but their ubiquity may be indicative of an overall r weakening of the moral authority of teachers and schools. While educational policy is limited in its ability to address the root sociological causes of the need for increased security in schools, policy makers should also be cognizant of the consequences of the reliance on these methods.

As suggested, one result of the presence of school security measures like metal detectors and police officers may be the fact that students feel "labeled" as deviant, a definition that they resist. Another factor that may indicate the social costs of increased attention to school security is that students' fear of victimization has risen slightly even as the number of raw incidences has decreased in and out of schools. One way to mitigate against this labeling process is to bring community members into schools along with security officials to weaken the contrast between the school as a place for learning and school as a secured place. As it stands, there are very few intermediaries between students and school officials. Having religious officials, retirees, storeowners, fire fighters, and other "visible" members of a school's community spend time there could draw on the informal social control that they might offer, could provide role models other than teachers, and could provide students with some day-to-day moral support. It is because of the lack of integration that youth band together in cliques and gangs. The point would not be to necessarily stop group and subcultures from forming, but to allow youth less pressurized opportunities to interface with the adult world. The daily presence of community members could stimulate intergenerational closure, making schools feel more like a community. Unfortunately, teachers and school administrators are likely to resist such a suggestion and there are significant legal and social impediments that could prevent this from happening. Such efforts should be also pursued with consistency and thoughtfulness. The presence of community members in schools is likely to backfire if it is not contextualized and planned well. Nonetheless, providing students with intermediaries between themselves and agents of school security could reduce the

negative affects of labeling and reduce the likelihood of organized resistance in the form of gangs.

A third implication which follows from this is that increased parental involvement, while a perennial focus of research on school achievement, appears to have distinct indirect value as well: it increases the effectiveness of teacher authority. There are, however, many impediments to increasing parental involvement directly in schools. First, school administrators and teachers may be reluctant to give parents a greater say in their day-to-day functioning. With greater access to schools, parents may push for their own interests without considering the entire picture. More work could be created for teachers and administrators if parents had greater access to voice. Second, most parents work during school hours and attendance at school functions (i.e. performances, fairs, field trips) could be impossible or difficult. The problem could be reduced if efforts continue to reconceptualize schools as partners with local communities and parents rather than as stand-alone social service agencies. Teachers would be more receptive to working with parents, and administrators would be more willing to take parents' requests into consideration, if there were not so many external requirements placed on the education profession. One policy solution might take place at the Federal level: parents could be granted a certain amount of relief-time to attend events at their children's school. This might be added to the Family and Medical Leave Act (FMLA). While many employers would resist a further reduction in leave hours for their employees, greater returns would be paid in the long run in the form of improved social capital between families and schools, improved student behavior and achievement, a possible reduction in violence in schools and a better-educated and socialized workforce.

A forth type of research and policy action should focus on the weakness in school wide discipline and those programmatic attempts aimed reducing violence. Gottfredson et al. (2000) gave failing grades to forty-seven percent of schools in terms of their school-wide discipline practices. This is evidence of a widespread breakdown in public schools' organizational effectiveness. Similarly, this research finds that teachers' input and control over school-wide discipline faces many challenges. Lack of teacher engagement with school discipline extends to the lack of administrator concern over teachers' safety. Andrew HaLevi, the founder of the Charleston (SC) Teacher Alliance reported that in 2004, long after the Columbine era had altered schools' approach to school safety, he "heard from at least 50 teachers from various schools [in the Charleston school district] who feel threatened but not supported by their principals" (Adcox 2004). He reports that "[i]t's very sad that it takes kids getting beat up in schools and teachers wrestled to the ground to make everybody aware that teachers have long felt their safety concerns are not being met" (Adcox 2004). Despite being the most abundant human resources in schools, teachers are often overlooked in terms of their input and control over school discipline. The most important curriculum that teachers teach is ultimately latent and immeasurable, but infinitely important: the curriculum of socialization. Thus, programs aimed at improving student behavior need to draw upon the accumulated wisdom that teachers possess in addition to being consistently and thoughtfully implemented. A prepackaged program is bound to fail if it is not sensitive to a school's social-ecological context. Perhaps this is why so many programs fail to meet Gottfredson et al.'s (2000) criteria of adequacy. While policy makers should be cautioned about throwing good money after

bad, further analysis of the pitfalls and successes of violence prevention programs need to be made available.

One of the aims of this study was to test the broken windows theory of crime as applied to student behavior in schools. Setting aside temporarily the limitation of using cross-sectional data to examine what are assumed to be temporarily linear phenomena, the results suggest that there is a strong relationship between misconduct and violent behavior. Most new programs aimed at school order emphasize the importance of attending to the smallest infractions. But, such efforts need to be followed up with adequate parental support and institutional conditions where student bonding and attachment can also be stimulated, as with creating smaller class sizes and smaller school enrollments.

Of particular interest here was the role that teachers' authority to discipline as bolstered by parental involvement plays in increasing teachers' effectiveness when it comes to discipline. The key point here is to create a school environment where students want to be; where discipline is a byproduct of attachment and engaged learning, not achieved through fear of sanctions. This was at the core of Durkheim's theory of teacher authority and school discipline. Future attempts to curb student misconduct and violent behavior should attend to both the structural inequalities which produce student resistance and conflict as well as to the social environments of schools, with teachers at the heart of these environments.

Appendix A

Table A.1: List of School U.S. Public School Shootings, 1996-2001

Date	Place	Shooter(s) and Age(s)	Deaths	Hurt
February 2, 1996	Moses Lake, Washington	Barry Loukaitis, 14	2 students 1 teacher	1
February 19, 1997	Bethel, Alaska	Evan Ramsey, 16	1 Student 1 Principal	2
April 24, 1997	Springfield, Oregon	Kipland Kinkel, 15	2 students (2 Parents)	22
May, 19, 1997	Fayetteville, Tennessee	Jacob Davis, 18	1 Student	0
May, 21, 1997	Edinboro, Pennsylvania	Andrew Wurst, 14	1 Teacher	2
October 1, 1997	Pearl, Mississippi	Luke Wooham, 16	3 Students	7
October 29, 1997	Pontiac, Michigan	Nathaniel Abraham, 11	1 Student	0
December 1, 1997	West Paducah, Kentucky	Michael Carneal, 14	3 Students	5
March 24, 1998	Jonesboro, Arkansas	Mitchell Johnson, 13 Andrew Golden, 11	4 Students 1 Teacher	9
June, 15, 1998	Richmond, Virginia	Quinshawn Booker, 14	0	2
April 20, 1999	Littleton, Colorado	Dylan Klebold, 17 Eric Harris, 18	12 Students 1 Teacher	23
May 20, 1999	Conyers, Georgia	T. J. Solomon, 15	0	6
November 19, 1999	Deming, N.M.	Victor Cordova, 13	1 Student	0
February 29, 2000	Mount Morris, Michigan	Unidentified, 6	1 student	4
May 26, 2000	Lake Worth, Fla.	Nate Brazill, 13	1 teacher	0
March 5, 2001	Santee, Calif.	Charles Andrew Williams, 15	2	13
March 7, 2001	Williamsport, Pa.	Elizabeth Catherine Bush, 14	0	1

Table A.2: Types and Rates of Youth Victimization in and Out of Schools, 1998

	Nonfatal Serious Violent Crimes (Rape, Sexual Assault, Robbery, and Aggravated Assault)		Nonfatal Violent Crimes (Serious Violent Crimes Plus Simple Assault)		Thefts		Total Nonfatal Violent Crime (Theft Plus All Violent Crimes)	
	Out of School	In School	Out of School	In School	Out of School	In School	Out of School	In School
Raw Number of Incidences	550,000	253,000	1,300,000	1,200,000	1,200,000	1,600,000	2,500,000	2,700,000
Raw National Percent	68%	32%	52%	48%	43%	57%	48%	52%
Est. Average Hours Awake per Setting/Day	16	7.5	16	7.5	16	7.5	16	7.5
Est. Average Hours Awake per Setting/Year	4490	1350	4490	1350	4490	1350	4490	1350
Est. National Rate Victimization/Hour	122.49	187.41	289.53	888.89	267.26	1185.19	556.79	2000.00
Adjusted National Percent	39.53%	60.47%	24.57%	75.30%	18.40%	81.60%	21.78%	78.22%
Increase Over Out of School Rate		1.53		3.07		4.43		3.59

Table A.3: Types and Rates of Youth Victimization in and Out of Schools, 2001

	Nonfatal Serious Violent Crimes (Rape, Sexual Assault, Robbery, and Aggravated Assault)		Nonfatal Violent Crimes (Serious Violent Crimes Plus Simple Assault)		Thefts		Total Nonfatal Violent Crime (Theft Plus All Violent Crimes)	
	Out of School	In School	Out of School	In School	Out of School	In School	Out of School	In School
Raw Number of Incidences	290,300	160,900	757,500	763,700	912,900	1,237,600	1,670,400	2,001,300
Raw National Percent	64%	36%	50%	50%	42%	58%	45%	55%
Est. Average Hours Awake per Setting/Day	16	7.5	16	7.5	16	7.5	16	7.5
Est. Average Hours Awake per Setting/Year	4490	1350	4490	1350	4490	1350	4490	1350
Est. National Rate Victimization/Hour	64.65	119.19	168.71	565.70	203.32	916.74	372.03	1482.44
Adjusted National Percent	40%	60%	25%	75%	18%	82%	22%	78%
Increase Over Out of School Rate		1.84		3.35		4.51		3.98

Appendix B

Table B.1: Means and Standard Deviations for SASS Schools

Locale	Rural				Town				Suburban				City			
School Level	Jr.		Sr.		Jr.		Sr.		Jr.		Sr.		Jr.		Sr.	
Sample Size	256		596		268		430		382		640		244		323	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Student Violence	-.34	1.04	-.18	.95	-.04	.86	.11	.86	-.17	1.02	.09	.88	.51	1.22	.61	.97
Student Misconduct	-.69	.93	-.05	.88	-.60	.68	.29	.82	-.63	.82	.42	.86	-.06	1.01	1.01	.96
Teachers' Authority	.29	1.13	-.03	.97	.42	.99	-.03	.92	.25	1.06	-.23	.92	.02	1.07	-.32	.84
Neighborhood Disadvantage	.02	.99	.03	.96	.39	.86	.33	.72	-.55	1.04	-.43	.95	.21	1.16	.21	1.13
% Minority Students	17.96	28.2	15.62	24.9	25.01	27.8	21.98	25.5	21.33	24.2	19.62	22.6	44.09	34.2	41.38	33.2
% Subsidized Lunch	.36	.25	.31	.25	.41	.22	.30	.22	.26	.21	.20	.19	.45	.28	.32	.24
Total Enrollment	2.43	.48	2.58	.43	2.70	.21	2.85	.23	2.84	.21	3.02	.28	2.87	.19	3.13	.24
Student-Teacher Ratio	13.69	4.55	13.72	4.39	14.76	3.40	15.69	4.75	15.95	4.32	16.30	4.48	15.33	3.57	17.28	5.51
Parental Participation	2.04	.99	1.45	.96	1.99	1.09	1.37	.87	2.16	1.05	1.49	1.00	2.03	1.19	1.47	1.06
School Security Efforts	.43	.69	.77	.89	.72	.84	1.03	.89	.70	.78	1.12	.80	1.14	.91	1.61	.85
Violence Program	.54	.50	.56	.50	.66	.47	.61	.49	.65	.48	.60	.49	.75	.44	.69	.46

Table B.2: Means and Standard Deviations for SASS Schools in Lowest Social Capital States

Locale	Rural				Town				Suburban				City			
School Level	Jr.		Sr.		Jr.		Sr.		Jr.		Sr.		Jr.		Sr.	
Sample Size	57		174		83		156		86		153		80		102	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Student Violence	-.20	1.1	-.07	1.	.00	1.	.17	.8	.02	.9	.03	.9	.62	1.2	.63	.9
Student Misconduct	-.82	.8	-.06	.8	-.66	.7	.10	.8	-.62	.7	.21	.8	-.08	1.	.81	.9
Teachers' Authority	.38	1.3	.08	1.0	.35	1.0	.07	1.0	.23	1.2	-.12	1.0	-.11	1.0	-.17	.77
Neighborhood Disadvantage	.70	.8	.54	.8	.94	.9	.76	.6	-.25	1.2	-.08	1.	.54	1.2	.44	1.2
% Minority Students	28.35	29.7	24.65	29.9	42.73	32.7	33.94	27.5	29.97	24.3	25.69	24.8	57.30	33.7	56.33	31.5
% Subsidized Lunch	.49	.2	.37	.3	.52	.2	.40	.2	.32	.2	.23	.2	.50	.3	.37	.2
Total Enrollment	2.68	.2	2.77	.3	2.76	.2	2.87	.2	2.86	.2	3.01	.3	2.86	.1	3.12	.2
Student-Teacher Ratio	14.85	2.4	14.50	3.8	15.20	3.	15.74	5.5	16.21	4.2	15.83	4.	15.32	2.3	16.24	3.8
Parental Participation	1.84	1.	1.22	1.	1.79	1.1	1.29	.9	1.96	1.	1.24	.8	1.99	1.4	1.43	1.
School Security Efforts	.96	.9	1.17	1.	1.02	1.	1.47	.9	1.07	1.	1.41	.9	1.40	1.	1.89	.9
Violence Program	.63	.5	.61	.5	.69	.5	.60	.5	.71	.5	.58	.5	.74	.4	.71	.5

Table B.3: Means and Standard Deviations for SASS Schools in Low Social Capital States

Locale	Rural				Town				Suburban				City			
School Level	Jr.		Sr.		Jr.		Sr.		Jr.		Sr.		Jr.		Sr.	
Sample Size	49		135		57		89		140		265		71		88	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Student Violence	-.45	.9	-.08	1.	.21	.9	.24	1.1	-.25	1.1	.15	.9	.73	1.3	.60	1.0
Student Misconduct	-.72	.8	.02	.9	-.38	.7	.39	1.	-.72	.9	.43	.9	.09	1.1	1.13	1.0
Teachers' Authority	.18	.96	-.17	1.0	.21	1.1	-.19	.84	.18	.9	-.24	.9	.01	1.1	-.32	.9
Neighborhood Disadvantage	-.12	1.	-.01	1.	.59	.7	.49	.7	-.58	1.	-.37	.9	.52	1.	.40	1.1
% Minority Students	19.30	27.	18.62	23.6	36.18	25.6	31.03	28.9	23.32	25.9	22.96	24.9	53.82	32.1	48.62	34.4
% Subsidized Lunch	.32	.3	.31	.2	.48	.2	.32	.3	.26	.2	.21	.2	.51	.3	.36	.3
Total Enrollment	2.64	.3	2.60	.5	2.68	.2	2.86	.3	2.86	.2	3.02	.3	2.89	.2	3.11	.3
Student-Teacher Ratio	15.89	5.	14.13	4.9	14.49	3.7	16.07	5.8	15.68	4.3	16.42	4.7	15.59	4.5	17.62	5.2
Parental Participation	1.92	.9	1.30	.9	1.61	.9	1.19	.8	2.20	1.2	1.52	1.1	1.87	1.	1.33	1.
School Security Efforts	.51	.7	.84	.9	.79	.9	.96	.9	.67	.8	1.05	.8	1.24	.9	1.64	.8
Violence Program	.57	.5	.60	.5	.67	.5	.72	.5	.66	.5	.60	.5	.79	.4	.65	.5

Table B.4: Means and Standard Deviations for SASS Schools in High Social Capital States

Locale	Rural				Town				Suburban				City			
School Level	Jr.		Sr.		Jr.		Sr.		Jr.		Sr.		Jr.		Sr.	
Sample Size	88		164		79		109		41		81		42		62	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Student Violence	-.47	1.	-.36	1.	-.24	.8	.03	.7	-.21	.7	.04	.7	-.01	.9	.39	.7
Student Misconduct	-.61	1.	-.12	1.	-.71	.7	.48	.8	-.66	.6	.56	.8	-.43	.8	.92	.8
Teachers' Authority	.26	1.1	-.06	.91	.53	.94	-.06	.85	.49	.9	-.23	.91	.33	1.0	-.32	.76
Neighborhood Disadvantage	-.17	.8	-.12	.8	-.12	.7	-.18	.6	-.79	.7	-.87	.8	-.63	.7	-.26	.8
% Minority Students	12.08	26.1	8.08	19.4	6.72	8.7	5.78	6.2	7.38	7.5	6.92	6.9	12.57	10.3	13.25	14.2
% Subsidized Lunch	.35	.2	.31	.2	.29	.2	.20	.1	.19	.1	.15	.1	.31	.2	.19	.1
Total Enrollment	2.05	.5	2.31	.4	2.65	.2	2.83	.2	2.80	.2	3.03	.2	2.80	.3	3.19	.1
Student-Teacher Ratio	11.31	4.8	12.12	4.2	13.77	3.2	15.30	3.3	15.79	3.4	17.88	4.7	14.46	3.7	18.40	4.5
Parental Participation	2.13	1.1	1.74	.9	2.30	1.	1.50	.8	2.38	.9	1.63	1.	2.60	1.	1.79	1.2
School Security Efforts	.16	.4	.29	.6	.51	.6	.61	.7	.54	.6	1.12	.7	.60	.6	1.29	.7
Violence Program	.49	.5	.47	.5	.66	.5	.56	.5	.63	.5	.56	.5	.64	.5	.73	.4

Table B.5: Means and Standard Deviations for SASS Schools in Highest Social Capital States

Locale	Rural				Town				Suburban				City			
School Level	Jr.		Sr.		Jr.		Sr.		Jr.		Sr.		Jr.		Sr.	
Sample Size	62		123		49		76		115		141		51		71	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Student Violence	-.21	1.1	-.22	.7	-.09	.6	-.04	.7	-.20	1.1	.06	.8	.47	1.2	.76	1.1
Student Misconduct	-.68	1.	-.01	.8	-.59	.5	.31	.8	-.51	.9	.55	.9	.06	1.	1.21	1.
Teachers' Authority	.32	1.1	.00	.91	.56	.84	.02	.83	.24	1.1	-.32	.86	-.04	1.1	-.51	.82
Neighborhood Disadvantage	-.21	1.1	-.43	1.	.06	.7	-.01	.7	-.67	1.1	-.68	.9	-.05	1.2	.06	1.2
% Minority Students	15.69	28.5	9.62	20.5	11.46	13.3	10.07	14.3	17.43	23.1	14.08	17.4	35.78	32.2	35.50	29.8
% Subsidized Lunch	.30	.3	.25	.2	.34	.2	.25	.2	.25	.2	.17	.2	.42	.3	.33	.2
Total Enrollment	2.58	.3	2.63	.4	2.71	.2	2.81	.2	2.80	.2	3.02	.3	2.89	.2	3.13	.2
Student-Teacher Ratio	14.25	3.9	14.28	4.2	15.96	3.6	15.74	3.4	16.13	4.8	15.68	4.2	15.70	3.7	17.40	8.1
Parental Participation	2.16	.9	1.53	.9	2.26	1.2	1.55	.9	2.17	1.	1.63	.9	1.87	1.1	1.42	.9
School Security Efforts	.27	.4	.75	.8	.49	.6	.79	.8	.50	.6	.94	.7	1.02	.9	1.44	.9
Violence Program	.50	.5	.56	.5	.61	.5	.58	.5	.61	.5	.65	.5	.78	.4	.70	.5

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