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# Social Control, Serious Delinquency, and Risky Behavior

## A Gendered Analysis

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Social control theory asserts that strong social bonds inhibit delinquency, whereas weak bonds offer little resistance to offending. In the development of this theoretical perspective, new research suggests that the type and magnitude of social bonds have differing effects on male and female delinquency. This study adds to our understanding of how social control factors of parental attachment, involvement in diverse prosocial activities, belief in traditional norms, and school climate affect both young men's and young women's reports of serious delinquency and risky behavior in a sample of high school youth. Whereas previous research has generally either controlled for the effect of gender statistically or studied all-male samples, this article uses separate models to examine the independent effects of social bonds on male and female delinquency. The findings support the development of gender-specific analyses to understand how social control affects male and female pathways into delinquency.

**Keywords:** *social control; delinquency; risky behavior; gender; school climate*

Adolescent delinquency and problem behavior have been linked to numerous problems in adulthood, including deviance (Dornbusch, Erickson, Laird, & Wong, 2001; Dryfoos, 1990; D. C. Gottfredson, 2001; Sampson & Laub, 1990) and even premature death (Laub & Vaillant, 2000). Increased drug and alcohol use strongly increases the risks for suicide, running away, and other self-destructive behavior, particularly

among young women (Koopman, Rosario, & Rotheram-Borus, 1994; Pipher, 1994). Research in school settings has shown that violence, fear, and delinquent norms reduce students' ability to learn (DeVoe et al., 2004). These risks are exacerbated for young women who experience increased levels of stress and low self-esteem as they enter high school (American Association of University Women, 1991). As high-profile incidents of school violence continue to threaten the educational and nurturing environments of our nation's schools, it is increasingly important to understand the factors both in and outside school settings that may contribute to delinquency and risky behavior.

Numerous theoretical perspectives have been advanced to help us understand the processes through which youth become engaged in delinquent behavior. Social control theory offers the opportunity to determine if bonds of attachment, involvement, and school and community measures explain serious delinquency and risky behavior. Although the vast majority of research testing the relationship between dimensions of social control and delinquency has focused almost exclusively on males, this study examines the differing effects of self-reported social bonds on serious delinquency and risky behavior for young men and young women in a sample of approximately 1,400 adolescents in a suburban high school.

Independently examining the experiences of young men and young women enhances our general understanding of the mechanisms for social control and explores the differential impact of social bonds in families and schools on male and female delinquency. Although the central focus is social control theory, this study also looks at school environment because it has the capacity for influencing the value systems of young people. Schools are also the location for many activities that represent the bonding elements of social control theory and therefore have been a key factor in numerous tests of the theory.

It is also important to account for the possibility of gender-specific effects within social control theory. Gender differences found in the effects of many types of bonds on delinquency are critical to the development of sound policies geared toward reducing serious delinquency and risk among male and female youth both within and beyond school settings. Designing appropriate delinquency intervention and prevention programming that is effective for both young women and men is particularly challenging because the causes of young women's delinquency have not frequently been the subject of study and are generally less well understood (D. C. Gottfredson, 2001).

## Background and Theoretical Framework

### Social Control Theory

Hirschi's (1969) social control theory is one of the most frequently cited theoretical frameworks in criminology today. Its salience is rooted in its conceptual connection between individuals and conventional social institutions. It has been applied primarily to understanding features of adolescent delinquency but has also proved versatile in explaining a variety of other aspects of delinquency and criminal behavior. It has, for example, been used to predict levels of self-reported delinquency (A. J. Huebner & Betts, 2002) and the onset of gang membership (Thornberry, 2006). Its moderating effects on delinquency through academic achievement (A. J. Huebner & Betts, 2002) and the degree to which schoolchildren are labeled as delinquent (Edwards, 1996) are also evident. Developmental theorists have argued as well that it is important to consider how the changing features of social bonds explain the trajectories of delinquency careers throughout the life course (Laub & Sampson, 2003) and the process of desistance from crime (Bushway, Piquero, Broidy, Cauffman, & Mazerolle, 2001; B. Huebner, 2005). Social control theory has thus proved useful to understanding many aspects and characteristics of crime and delinquency.

Social control theory stands in contrast to earlier theoretical frameworks by questioning what inhibits individuals from committing delinquency instead of why certain individuals participate in delinquency. Hirschi (1969) argued that delinquents and nondelinquents share the same basic impulses to delinquency, differing only in the degree to which they are constrained from yielding to those impulses. According to Hirschi, those with strong positive social bonds are more likely to conform to conventional norms, whereas those with weak or broken social bonds are more likely to deviate from those norms and participate in delinquent behavior. Grounded in the socialization process and the internalization of the dominant norms of society, social control emphasizes four concepts of social bonds: attachment, commitment, involvement, and belief (Hirschi, 1969).

Attachment represents the closeness between children and their parents or other important individuals in their lives. It can include the amount of parental supervision, the quality of communication between parents and their children, how much time parents and children spend together, parents' knowledge of children's friends, and issues of trust (Agnew, 1991; Hirschi, 1969; M. H. Miller, Esbensen, & Freng, 1999). The expectation is that children will adopt and adhere to prosocial norms where there are stronger

bonds between them and parents. The position that the family transmission of values and investment of time in children ultimately affects delinquency has an important place in social control theory (Wright, Cullen, & Miller, 2001).

Commitment and involvement result from proper attachment and from the internalization of prosocial norms. *Commitment* indicates the degree of buy-in that the existing values and norms are legitimate and worthy. It represents what one has to lose when breaking the law or what Toby (1957) refers to as “stakes in conformity.” *Involvement* indicates an individual’s level of interaction with “proper” socializing agents or agencies and is based on the understanding that idle time is potentially dangerous. Involvement in conventional activities (such as athletics, religion, and community service) bonds individuals to institutions and is expected to reinforce prosocial norms and thus lower involvement in delinquent activities (Hirschi, 1969). A youth properly committed to conventional norms will be involved in activities that do not threaten goal achievement.

Beliefs are theoretically linked to other social bonds by legitimizing their value (Hirschi, 1969) and indicate acceptance of rules as fair and consistently enforced (Jenkins, 1997). Those who hold strong belief in, and therefore acceptance of, conventional norms as valid are more constrained by them and exhibit lower delinquency. Increasing the levels of prosocial attachment and commitment is expected to raise belief in the moral order and thus lower delinquency (Laundra, Kiger, & Bahr, 2002).

## Gender and Social Control

The vast majority of research testing the relationship between dimensions of social control and delinquency has focused almost exclusively on males. As a result, the wholesale applicability of these findings to females is unclear. In his original research, Hirschi (1969) limited his sample to young men. This exclusion has led to both criticism and attempts to assess how well social control theory does apply to females (Alarid, Burton, & Cullen, 2000; Cernkovich & Giordano, 1992; Chesney-Lind & Shelden, 2004; Dornbusch et al., 2001; A. J. Huebner & Betts, 2002; Laundra et al., 2002). The limited research on gender and social control to date indicates that mechanisms of social control may not be experienced uniformly by young men and women and thus calls into question the processes through which social controls, originally identified by Hirschi, explain delinquency among young women (Erickson, Crosnoe, & Dornbusch, 2000).

Research including both male and female samples suggests that gender stratification and patriarchal power dynamics within families and communities foster both gender-specific mechanisms of and responses to social control. Hagan, Hewitt, and Alwin (1979) argued that mechanisms of social control are often gendered. Females, for example, are more likely to be objects of informal forms of social control (protective), whereas males are most often the objects of formal mechanisms of social control (authoritative). Similarly, Block's (1984) longitudinal study of youth development found that parents tend to exert strong protective controls over where daughters can travel and how they should act, with particular emphasis on "ladylike" behavior. Conversely, boys are allowed the freedom to try new experiences under defined rules that threaten punishment if transgressions occur. This perspective suggests that the methods of social control utilized by families, communities, and schools are different for young men and young women.

New research that includes sufficiently large samples of both young men and young women has also identified the differential responses of young men and women to various forms of social control. Kelley, Huizinga, Thornberry, and Loeber (1997) suggest that these differences may be explained by the different developmental processes experienced by young men and young women, suggesting that types of control have different impacts on young men and women at different stages of their development. Differing responses to social controls by young men and women are believed to emerge in response to gender role socialization rather than any innate differences between the sexes (Thorne, 1994). The impact of such socialized gender norms on girls' and boys' lives is most acute during the adolescent years—the same developmental period when youth are at the greatest risk for delinquency (Block, 1984). For example, relationships to families and peers may have a stronger mediating influence on young women's delinquency because during adolescence, young women tend to place a higher value on relationships and consequently may be more affected by the nature of these relationships than are young men (Giordano & Cernkovich, 1997). Therefore, the processes of social control must be understood within the context of socialized gender roles, underscoring the need for gender-specific tests of social control on male and female delinquency. Despite the need for a gender-specific understanding of the various protective and aggravating factors on delinquency, there is little clear consensus in the literature about the gendered operation of different dimensions of social control.

## Previous Research

Hirschi's (1969) original, exclusively male study used a six-item self-reported measure of delinquency ranging from minor theft to assaultive violence (e.g., beating somebody up). This measure was then associated with each measure of the four social bond concepts and with attachment to school and peers. Juvenile males who were not as attached to conventional parents, peers, and teachers were more likely to be delinquent (Hirschi, 1969).<sup>1</sup> Youth in the sample who were supervised by and communicated closely with a parent reported lower levels of delinquency regardless of race or social class. These findings have been found to be consistent for youth from a variety of backgrounds, including middle-class youth (Linden, 1978) and those living in rural areas (Gardner & Shoemaker, 1989).

The parent-child relationship has emerged as one of the most important areas of inquiry for understanding delinquency, especially among younger adolescents. The relationship exists along several dimensions, including the nature of supervision of children's behavior and levels of emotional attachment. M. H. Miller et al. (1999) concluded that parental monitoring of behavior is one of the most important dimensions of the relationship as is how well youth have properly internalized their parents' conventional values.

Consistent with psychological research suggesting that attachments and relationships are generally more important for young women than for young men, parental attachment is expected to have gender-specific effects on delinquency (Gilligan, 1982). Research on delinquency confirms that attachment and emotional bonds to parents have a stronger protective impact on young women than on young men (Austin, 1978; Datesman & Scarpitti, 1975; Heimer & DeCoster, 1999; A. J. Huebner & Betts, 2002). Similarly, Laundra et al. (2002) reported that even though commitments and attachment to parents were important for both young men and young women, they were more important for young women. It is believed that attachment to parents may be more influential on young women because their sense of self is more closely connected to positive relationships with their parents. Emotional bonds to parents also appear to protect young women more than young men from drug- and alcohol-related offenses (Covington, 1985). Erickson et al. (2000) included parental attachment and supervision related to general delinquency and substance use separately for males and females and found that attachment had direct effects on substance abuse for females but not for males.

Yet not all research supports the notion that parental attachment is more important for young women than for young men. The type of delinquent

behavior measured may result in different interpretations about the role of parental attachment for young men and women. Mason and Windle (2002) reported that dimensions of social bonds not only were gender specific but varied across different dimensions of delinquency. Among young women, for example, family support was more influential for minor delinquency than among young men, and it fully mediated the effects of early childhood variables. Mason and Windle concluded that their results support the idea that pathways to delinquency vary by gender and by type of offending. Thornberry, Krohn, Lizotte, Smith, and Tobin (2006) reported substantial differences between young men and women with regard to the influence of various domains of risk factors to joining gangs. Dimensions of parent-child relationships consistent with social control theory, such as attachment to child and parental supervision, significantly increased the odds of gang membership among young men but not among young women (p. 35). These varied findings support the argument that gendered pathways to delinquency must be understood within particular domains of risk.

Although there has been a great deal of research examining parental attachment, alone it is just one measure of social control, and some research suggests it may be less important than other dimensions of social control in explaining delinquency. Nagin and Paternoster (1994) found that commitment, measured as personal capital, was more critical than attachment alone in preventing delinquency. Similarly, Wright et al. (2001) reported that increased attachment, commitments, and beliefs decreased delinquent involvement and association with delinquent peers. Agnew (1991) used two waves (1976 and 1977) of the National Youth Survey, focusing on the concepts of attachment, commitment, and belief developed from Hirschi (1969), and found that only one social control variable—commitment to school—was directly associated with delinquency.

Involvement in prosocial activities is believed to deter delinquency by reducing unstructured time, providing incentives to conform, and creating avenues for attachments with other prosocial peers and adults (Osgood, Wilson, O'Malley, Bachman, & Johnston, 1996; Schafer, 1969; Segrave & Hastad, 1984). Yet some research suggests that involvement in activities such as organized sports may increase risks for delinquency, particularly among young men (Begg, Langley, Moffitt, & Marshall, 1996). Observed gender differences are explained in part by new research suggesting that boys are more likely than girls to adopt "jock identities" through athletic participation (K. Miller, Melnick, Farrell, Sabo, & Barnes, 2006). Garbarino (2006), on the other hand, has recently asserted that increasing participation in sports and a new identity for females, who are now being portrayed in



the media as fighting back, have increased rewards for female aggressiveness. Such negative identities decrease the prosocial benefits of sports and in fact may lead to increased delinquency. These findings underscore the need for gender-specific analysis when measuring the effect of various types of involvement on minor and serious delinquency.

Ultimately, understanding the effect of social control on male and female delinquency requires an examination of both the independent effects and the combined effects of measures of social control. Li (2004) more recently tested the combined effects of self-control, delinquent associations, illegitimate opportunities, and social control theory and found all four measures of social control to be significant predictors of antisocial behavior. Among those dimensions of social control, beliefs had the largest individual effect, followed by involvement, attachment, and commitment (Li, 2004). Thornberry et al.'s (2006) more comprehensive assessment of the risk factors leading to gang membership found that measures of social control—including attachment to parents, attachment to teachers, and commitment to school—were significant antecedents to gang membership.

Recent research also suggests that the relationship between social control and delinquency is somewhat more complex than originally conceptualized. May (1999) suggested that attachment, involvement, commitment, and belief in conventional institutions and norms are tempered by perceptions of the community. Using a combined index of social control, he found a significant inverse relationship between social control and firearms possession and a significant positive association between neighborhood disorder and firearms possession (May, 1999). It is likely that the notions of environment and neighborhood should be expanded to include features of school environments themselves, as such locations are particularly important to the socialization of school-aged children (D. C. Gottfredson, 2001).

The existing literature indicates that social control theory is generally an appropriate framework for explaining juvenile delinquency, especially among individuals from diverse social backgrounds. The evidence suggests that social attachments and commitments are the most important dimensions of social control and that involvement is the least important. Numerous questions remain, however, about the relationship between social control and delinquency. First, the applicability of social control theory to females is unclear. Second, the applicability of social control theory to a wider cross section of behaviors, delinquent and nondelinquent yet problematic, also remains unclear.

The current research builds on the existing literature in several significant ways. First, we use two conceptually distinct measures of delinquency

to tap both serious and minor delinquency more commonly associated with risky behavior in youth. This is important in light of the thought that tests of social control theory tend to focus on trivial types of delinquency (Vold, Bernard, & Snipes, 1998, p. 211). Second, analysis is performed separately for both young men and young women to determine if there are interactions between gender and theoretically salient constructs. Third, we continue the tradition of considering the effects of perceptions about environmental characteristics that some have argued are important (Day, 1998; Nash & Bowen, 1999), but we expand this area of inquiry by including features of the school environment. Finally, our sample is upper-middle-income high school students. Research to date has focused largely on urban and economically disadvantaged school populations, leaving us with very little information about delinquency levels among upper-middle-class adolescents.

## The Current Study

The primary objective of the current research is to explore if dimensions of social control theory have differential impacts on adolescent boys than on adolescent girls. The goal is to determine if there is a gendered effect to social control. This study consists of a sample of upper-middle-class students from a high school located in New England. The sample includes 1,366 students from the town of Patriot, a pseudonym for a town of just over 30,000 located in a New England region populated primarily by educated professionals. Social control theory is a particularly useful theoretical framework for understanding delinquency among middle- and upper-middle-class samples because, as suggested by Hirschi (1969), it is expected to be generalizable to all social classes. Previous studies have established both the need for and the applicability of testing theories beyond their early roots in lower class or urban areas (Jenkins, 1997; Linden, 1978; Mason & Windle, 2002) and have even included convenience samples of college students (Nagin & Paternoster, 1994) and youth from rural areas (Gardner & Shoemaker, 1989).

To accomplish this, young men and women are first compared on a series of measures related to social control theory and other control measures using bivariate analyses. We then compare the relationships between measures of social control and delinquency for both young men and young women with two ordinary least squares (OLS) regression models representing both serious delinquency and risky behavior. Separate gender-specific models are then presented for two outcome measures to determine if dimensions of

social control operate differently for young men and women across different dimensions of delinquency. Finally, we compare the gender-specific coefficients for each outcome measure to determine if any differences are statistically significant (see Paternoster, Brame, Mazerolle, & Piquero, 1998).

## Research Design

The data were derived from a survey administered to all students present at Patriot High School during homeroom period on one day in the spring of 2004. The survey, used as part of Patriot High School's Youth Risky Behavior Survey, which is conducted on a biannual basis, was voluntary and anonymous. Included were questions about tobacco use, alcohol and other drug use, risky sexual behavior, dietary behavior, physical activity, and behavior associated with intentional or unintentional injury. The final sample included 1,366 completed surveys, for a response rate of nearly 80%. The sample was composed of an almost equal number of male students (680) and female students (686). Descriptive statistics for the sample as a whole, and male students and female students where appropriate, are presented in Table 1.

The sample gender, race, and ethnicity characteristics closely approximate those of the actual student population. The sample is composed of 50% female students compared to 47% for the entire school. Students in ninth grade were slightly undersampled and represent 23% of the sample although nearly 26% of the entire school. Thus, the sample closely approximates the actual population, although minor differences are apparent. We have omitted a more complete listing of the actual demographics of Patriot High School to maximize the anonymity of these findings.

## Variable Measures

### *Dependent Variables*

Delinquency and deviance can be relatively elusive, multidimensional concepts that are not easily operationalized. In this spirit, two separate dependent variables were operationalized to represent serious delinquency and risky behavior (see Appendix A for a more complete description of variable construction). Serious delinquency was a three-item additive scale: "During the past 30 days, on how many days did you carry a weapon?" "During the past 12 months, how many times were you in a physical fight?" and "Are you involved in a gang?" Weapon carrying was an ordinal scale

**Table 1**  
**Descriptive Information**

		Total ( <i>N</i> = 1,366)	Male ( <i>n</i> = 680)	Female ( <i>n</i> = 686)
Dependent variables				
1. Serious delinquency*	Mean	0.969	1.382	0.559
	Standard deviation	-1.92	-2.25	-1.41
2. Risky behavior*	Mean	1.831	2.010	1.655
	Standard deviation	-2.90	-3.01	-2.77
Independent variables				
Gender	0 = male	49.80%		
	1 = female	50.20%		
Grade	0 = 9th	22.90%	29.30%	30.40%
	1 = 10th	26.60%	29.50%	23.80%
	2 = 11th	25.20%	22.90%	27.40%
	3 = 12th	18.30%	18.20%	18.40%
Race*	0 = Non-Black/Non-Hispanic	94.20%	95.50%	92.90%
	1 = Black or Hispanic	5.80%	4.50%	7.10%
Stress*	Mean	10.255	10.069	10.434
	Standard deviation	-2.85	-2.83	-2.85
Parental attachment	Mean	-0.001	0.006	-0.009
	Standard deviation	-0.99	-1.00	-0.98
School	0 = no	25.80%	27.20%	24.50%
	1 = yes	74.20%	72.80%	75.50%
Sports*	0 = no	28.10%	24.70%	31.30%
	1 = yes	71.90%	75.30%	68.70%
Community	0 = no	70.20%	71.90%	68.50%
	1 = yes	29.80%	28.10%	31.50%
Church*	0 = no	50.40%	55.90%	45.10%
	1 = yes	49.60%	44.10%	54.90%
Activities scale	Mean	3.548	3.453	3.641
	Standard deviation	-1.94	-1.99	-1.88
School climate				
Disrespect	Mean	0.000	-0.111	0.115
	Standard deviation	-1.00	-1.04	-0.940
Backstabbing*	Mean	0.005	-0.153	0.158
	Standard deviation	-0.99	-0.97	-0.99
Wouldn't intervene	Mean	0.006	0.086	-0.098
	Standard deviation	-0.99	-1.04	-0.93
Emotional disinvestment*	Mean	0.003	0.151	-0.140
	Standard deviation	-1.00	-0.925	-0.92
Community disorder				
Serious	Mean	-0.002	0.022	-0.028
	Standard deviation	-1.00	-0.98	-1.02
Minor	Mean	-0.002	-0.014	0.009
	Standard deviation	-1.00	-1.03	-0.97
Parties*	Mean	-0.001	-0.145	0.138
	Standard deviation	-1.00	-0.98	-1.00
Drinking*	Mean	0.000	-0.121	0.123
	Standard deviation	-0.99	-0.99	-0.99
Vandalism*	Mean	0.001	0.083	-0.079
	Standard deviation	-1.00	-1.04	-0.95
School disorder				
Serious	Mean	0.003	-0.048	0.056
	Standard deviation	-1.00	-1.00	-0.99
Minor*	Mean	0.003	-0.162	0.168
	Standard deviation	-0.99	-1.04	-0.92

\**p* < .05.

ranging from 0 to 4; prevalence of physical fights was also an ordinal scale, ranging from 0 to 7, and gang membership was a weighted indicator, with a value of 6 for gang membership. Gang membership was weighted to reflect the upper end of the other two indicators because research consistently finds that gang membership is highly predictive of several types of future problem behavior (Esbensen, Winfree, He, & Taylor, 2001; Thornberry, Huizinga, & Loeber, 2004). Not surprisingly, male students ( $\bar{x} = 1.38$ ,  $SD = 2.25$ ) reported significantly higher levels of serious delinquency than female students did ( $\bar{x} = .56$ ,  $SD = 1.41$ ,  $p < .05$ ; see Table 1).

A second dependent variable measured dimensions of risky behavior.<sup>2</sup> For this analysis, risky behavior was an additive scale that included indicators of substance abuse and substance abuse-related behaviors. The first three indicators were measured on ordinal scales ranging from 0 to 7 (see Appendix A for response categories). Respondents were asked, "During the past 30 days, on how many days did you smoke?" "During the past 30 days, on how many days did you drink at least one drink of alcohol?" and "During the past 30 days, on how many days did you have more than five drinks of alcohol in a row, within a couple of hours?" The following two indicators were measured on scales that ranged from 0 to 4: "During the past 30 days, how many times did you drive a car when you had been drinking?" and "During the past 30 days, how many times did you ride in a car driven by someone who had been drinking?"

Broadening the outcome measures to include risky behavior is advantageous for several reasons. Although risky behaviors are not necessarily illegal, they often fulfill many of the same basic impulses of legally proscribed acts (M. R. Gottfredson & Hirschi, 1990). From an adolescent development perspective, many types of risky behavior can have severely detrimental consequences and are risk factors for future delinquency. Moreover, the sample is mostly composed of upper-middle-income families, and research continually finds that incidents of serious delinquency are universally less common among this population. It is plausible that serious delinquency is supplanted with risky, albeit sometimes not illegal, behavior. Finally, inclusion of risky behavior is also advantageous because it provides the ability to understand characteristics of gender-specific deviance (Valois, Zullig, Huebner, Kammermann, & Drane, 2002). Similar to the results from serious delinquency, at Patriot High male students reported significantly higher levels of risky behavior than female students did ( $p < .05$ ).

### *Independent Variables*

*Attachment and involvement.* The theoretical focus of this research is to determine the relationship between measures of social control and delinquent behavior. Measures of both parental attachment and involvement were included because both are important and distinct components of social control theory (Hirschi, 1969). The parental attachment scale includes three indicators that range from 0 to 7. Respondents were asked, "On how many of the past 7 days did a parent or guardian Check on whether you had done your homework, Limit your TV watching, and Check where you would be when not at home or school?" The three measures were reduced to one by principal components factor analysis with varimax rotation (factor loadings  $> .66$ ). Significant differences were noted between male and female students on the parent attachment scale ( $p < .05$ ). Involvement was represented by four dichotomous variables denoting involvement in school nonsport activities (academic groups, service clubs, student government, peer leadership, band, choir, and drama), sport activities (intramural sports, junior varsity or varsity sports, and organized sports outside of school), community nonsport activities (organized art group outside of school and other organized club outside of school), and church involvement. All these measures were also included in a summary additive scale that assessed the combined involvement effects. Significant differences between male and female students were evident for sports ( $p < .05$ ) and church involvement ( $p < .05$ ) only. Measures of parental attachment and involvement are expected to be negatively associated with both delinquent and risky behavior because they should serve as protective factors against such behavior.

*School climate.* Environmental influences include features of the school setting. The school setting is particularly important because young people spend a considerable amount of their waking hours in school. Schools also function as locations where young people are brought together in time and space with their peers, all of whom are in their prime for delinquency. School climate in particular has the ability to influence the normative belief structure, establish informal rules for the acceptability of behaviors, expose students to victimization, and provide varying levels of emotional support (D. C. Gottfredson, 1998, 2001).

Six dimensions of school climate were included. The first four measured aspects that represent disrespect in the broader school environment, backstabbing peer pressure, tendency to intervene in the case of a problem, and emotional disinvestment. The measures approximate commitment and beliefs

traditionally used in social control theory. Principle components factor analysis with varimax rotation was used to reduce scales to single measures. *Disrespect* is composed of six items that measure disrespect among students and between students and teachers or staff (see Appendix A for items). Higher levels reflect greater levels of disrespect (factor loadings > .51). *Backstabbing* is a three-indicator variable that measures a quality of the relationships among students. Included is perceived level of backstabbing within the school, amount of backstabbing to conform, and how hard students try to fit in. All three items were measured on scales that ranged from 0 to 3, with higher values indicating more backstabbing (factor loadings > .75). Backstabbing and peer pressure are particularly salient because the quality of friendship networks exerts substantial influences over school-aged populations (Rawlins & Holl, 1987). *Wouldn't intervene* is composed of three indicators that measure the extent to which respondents would intervene in the event they were aware of illegal or unethical behavior. Respondents were asked to respond on an agreement scale of 0 to 3 to the following questions: "I would intervene in a situation where I thought a person was being mistreated," "I would talk to someone who was doing something wrong in an effort to stop them from doing it," and "I would tell an authority figure if I knew someone was doing something wrong." Higher levels reflect less willingness to intervene (factor loadings > .55). *Emotional disinvestment* is composed of three indicators that measure levels of concern about problem behavior. Items included "Items left unattended are fair game for others to take," "Ultimately, no one has the right to tell others what to do," and "I generally do not worry about the consequences of my actions." Scales ranged from 0 to 3, with higher levels reflecting higher levels of emotional disinvestment (factor loading > .46). Compared to their male counterparts, female students reported significantly ( $p < .05$ ) more backstabbing and significantly less emotional disinvestment. None of the other differences between genders reached statistical significance.

Two measures of school-related disorder are also included in the analyses. Respondents were asked to indicate how serious several problem behaviors were in their school. Response scales ranged from 0 to 3, with higher levels reflecting more problems. *Serious school disorder* measures perceived seriousness of sexual harassment, gang violence, sexual assault, and pressure to join gangs. The items were reduced to one factor score with principal components factor analysis with varimax rotation (factor loadings > .75). *Minor school disorder* reflects perceived levels of seriousness of drinking among students at parties, use of drugs, verbal insults, and peer pressure at school

(factor loadings  $> .71$ ). Female students reported significantly more problems with minor disorder than their male counterparts did ( $p < .05$ ).

School climate measures are expected to be positively associated with delinquent and risky behavior. That is, students who characterize Patriot High School as having problems with school climate are expected to act in nonconformist or deviant behavior. This is based on the expectation that individuals are influenced by their environment and that they are likely to behave in non-normative ways when they believe that the environment is conducive to such behavior.

*Community disorder.* Community disorder is also a meaningful environmental influence to consider. It includes characteristics of the broader community environment because these social milieus can influence attitudes and behaviors (May, 1999; W. B. Miller, 1978; Patchin, Huebner, McCluskey, Varano, & Bynum, 2006). In this study, students were asked to rate crime and disorder problems in their community on a seriousness scale. Responses ranged from 0 to 4, with higher levels indicating higher seriousness. Five community disorder measures are included (see Appendix A). *Serious community disorder* measures levels of burglary, domestic violence, weapons, and motor vehicle theft (factor loadings  $> .79$ ). *Minor community disorder* measures levels of litter and loitering (factor loadings  $> .69$ ). *Parties* measures problems with house parties and drinking in the woods (factor loadings  $> .84$ ). *Vandalism* measures levels of vandalism and graffiti. Male students reported significantly ( $p < .05$ ) fewer perceived problems with parties and drinking behavior but significantly more issues of vandalism in the community. Like school-related disorder variables, levels of community disorder are also expected to be positively associated with delinquent and risky behavior.

### *Control Variables*

Demographic variables are included as control variables. Gender is a nominal-level variable. Grade level identifies students' grade level and is a proxy for age. Race is a binary variable, for which 0 reflects White/Asian students and 1 Black/Hispanic students. Combining Whites and Asians together in this sample represents a departure from traditional criminological research in which Whites are almost exclusively considered nonminority. As a class, Asians in Patriot High School are more likely to be affluent and less likely to have experiences that are similar to those of Black or Hispanic students. Asian students in this sample are more closely aligned with White students.



A measure for school stress is also included to control for the independent effect that stress may have on both serious delinquency and risky behavior. Measures of stress are particularly important for high-achieving middle-class school environments where pressures to excel academically may be a risk factor. School stress is operationalized in a manner conceptually similar to strain. School stress indicates dimensions of stress associated with academic achievement and expectations. It included the following four indicators: "In general, how much stress do your classes cause you?" "I feel I am in academic competition with my friends," "The atmosphere at school encourages academic competition," and "The atmosphere in the town encourages academic competition." Responses ranged from 0 to 4, with 0 indicating no stress or do not agree, and 4 indicating extreme stress or strongly agree. Students who report higher levels of stress are expected to report higher levels of delinquent and risky behavior. Female students reported significantly ( $p < .05$ ) higher levels of school-related stress.

## Results

Table 2 presents the results from two OLS regression models for both self-reported serious delinquency and risky behavior. The analysis includes the full sample to determine the individual and combined effects of the independent variables on both outcome measures on all school students. Gender and race were significant predictors of serious delinquency. The findings indicate that female students and Black/Hispanic students reported significantly higher levels of serious delinquency ( $p < .05$ ). Neither grade level nor school stress was a significant predictor of serious delinquency.

Several other important findings emerge when considering the effects of other independent variables included in the model. Parental attachment is the first dimension of social control theory considered. Contrary to many earlier findings, levels of parental attachment were not significant predictors of serious delinquency. Although the relationship is negative and in the expected direction for both serious delinquency and risky behavior, attachment failed to reach statistical significance. One explanation is that the level of parental attachment is generally high at Patriot High School. It could therefore be that although attachment may be important, there was not enough variation to fully test its effect. The second dimension of social control theory—*involvement*—considers the individual and combined effects of involvement in activities. Each of the separate involvement measures had a significant and negative effect on serious delinquency. These findings indicate that they function as protective factors against serious delinquency.

**Table 2**  
**Ordinary Least Squares Regression Coefficients: Full Models**

Variables	Model 1: Serious Delinquency		Model 2: Risky Behavior	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Gender	-1.128*	0.182	-0.688*	0.305
Grade <sup>a</sup>				
Sophomore	0.027	0.235	0.710	0.397
Junior	0.375	0.247	2.163*	0.415
Senior	-0.439	0.278	2.492*	0.468
Black/Hispanic	1.296*	0.382	1.089	0.645
Stress	-0.055	0.035	-0.167*	0.059
Parental attachment	-0.156	0.089	-0.088	0.151
Involvement				
Community	-0.441*	0.220	-0.637	0.369
School	-0.690*	0.256	-0.896*	0.431
Church	-0.418*	0.208	-0.810*	0.352
Sports	-0.489*	0.244	0.517	0.410
Scale of activities	0.336*	0.080	0.252	0.135
School climate				
Disrespect	0.474*	0.097	0.763*	0.165
Backstabbing	0.220	0.118	0.742*	0.196
Wouldn't intervene	-0.104	0.092	0.485*	0.155
Emotional disinvestment	0.523*	0.092	0.927*	0.155
Community disorder				
Serious	0.053	0.112	0.535*	0.190
Minor	0.101	0.105	0.189	0.175
Parties	-0.101	0.110	-0.134	0.186
Drinking/smoking	0.037	0.099	0.656*	0.167
Vandalism	0.143	0.108	0.141	0.181
School disorder				
Serious	0.032	0.109	-0.325	0.186
Minor	-0.160	0.123	-0.555*	0.206
Constant	2.229*	0.438	3.927*	0.732
<i>R</i> <sup>2</sup>		.186		.245

a. Reference category is freshman.

\**p* < .05.

Interestingly, however, the cumulative activities scale showed a positive association, suggesting that too much involvement might have adverse effects. Thus, there may be a tipping point where extensive involvement results in increased exposure to other risk factors, thereby increasing serious delinquency.

The findings also indicated that environmental influences were important predictors of serious delinquency but that the effects were not universal. Certain characteristics of the school climate appear to influence levels of serious delinquency. Students that reported higher levels of problems with disrespect, for example, also reported significantly higher levels of serious delinquency ( $p < .05$ ). A similar relationship was observed for the measure of emotional disinvestment. The relationship between reported levels of peer pressure and backstabbing behavior was not significant, however, although it was in the expected direction. The variable measuring the tendency to intervene in school problems was also not statistically significant, although it was in the expected direction. Interestingly, none of the community or school crime and disorder measures were significant predictors of serious delinquency among the sample.

Risky behavior was also regressed on the same set of independent variables (see Table 2, Model 2), and important differences and similarities emerged. Similar to Model 1, female students reported significantly lower levels of risky behavior. In contrast to the earlier findings, race/ethnicity was not a significant predictor of risky behavior, but grade level was. Using freshman as the reference category, juniors and seniors reported significantly higher levels of risky behavior ( $p < .05$ ). The impact of school stress was also significant and negative for the risky behavior measure.

Similar to the serious delinquency model, parental attachment was not a significant predictor of risky behavior. Several interesting results emerge when considering the independent effects of individual involvement measures. Involvement in school (nonsport) and church activities reduced self-reported risky behavior; however, involvement in sports activities significantly increased risky behavior. Although sports involvement seems to function as a protective factor for serious delinquency, it increases levels of other risky behavior. Similar to serious delinquency, there was a positive and significant relationship between the activities scale and risky behavior.

Environmental or contextual factors also appear to influence levels of risky behavior. All of the school climate measures were significantly related in the positive direction to self-reported levels of risky behavior. With the exception of the variable measuring tendency to intervene in problems, all were in the expected direction. That is, in general, students who reported more problems with their school environment also reported significantly higher levels of risky behavior. A consistently strong relationship between school environment and negative behavior is clear. Perceptions about levels of community crime and disorder were more predictive of self-reported risky behavior than of serious delinquency.

Separate analyses for female students and male students were conducted in an effort to develop a more complete picture of possible gender-specific effects of the independent variables on both serious delinquency and risky behavior. These findings are presented in Table 3. Considering serious delinquency first, demographic characteristics such as grade level and race/ethnicity did not have much explanatory power for male or female students. The one exception to this is race/ethnicity for female students. In this case, Black/Hispanic female students reported significantly higher levels of serious delinquency net of other variables. Such a relationship was not evident for male students. The relationship between school stress and serious delinquency was not significant for male or female students.

Significant differences between male and female students were also evident on different dimensions of social control. The findings indicate that for girls, traditional forms of involvement have little effect on serious delinquency, yet involvement in sports significantly reduces risk for involvement in serious delinquency. The impacts of the involvement measures were the opposite for male students. Community involvement, school involvement, and church involvement all significantly reduced serious delinquency for boys; however, sports involvement had no effect on serious delinquency for this same sample. When participation in activities is combined into an additive scale, we find that increased levels of overall involvement are positively related to delinquency for boys ( $p < .05$ ) but had no effect for girls. These combined findings reveal that boys and girls respond differently to different types and levels of involvement, and they suggest a possible tipping point for male involvement in activities, where having too many activities begins to increase risk for delinquency.

Turning attention now to the effects of perceptions of school environment, findings indicate that both male and female students who reported higher levels of disrespect and emotional disinvestment reported significantly higher levels of serious delinquency ( $p < .05$ ). The variables measuring backstabbing or intervening behavior were not significant for male or female students. None of the community or school disorder measures were significant predictors of serious delinquency for male or female students.

In Table 3, Model 2 compares the impact of the same independent variables on the dependent variable measuring risky behavior. Age was an important predictor of risky behavior for both male and female students, with older students reporting significantly higher levels of risky behavior than younger students. One interesting caveat is that the onset of risky behavior appears to be slightly older for boys, as evidenced by the nonsignificant impact of sophomore class status. Interestingly, the impact of stress was

**Table 3**  
**Ordinary Least Squares Regression Coefficients: Gender Effects**

Variables	Model 1: Serious Delinquency				Model 2: Risky Behavior			
	Female		Male		Female		Male	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Grade <sup>a</sup>								
Sophomore	0.063	0.23	-0.004	0.40	1.112*	0.54	0.512	0.58
Junior	0.057	0.22	0.792	0.45	2.246*	0.53	2.290*	0.65
Senior	-0.228	0.25	-0.619	0.51	2.301*	0.60	2.957*	0.75
Black/Hispanic	1.400*	0.32	1.157	0.79	0.620	0.76	2.176	1.17
Stress	-0.036	0.03	-0.073	0.06	-0.184*	0.08	-0.121	0.09
Parental attachment	0.021	0.09	-0.319*	0.16	-0.010	0.20	-0.072	0.23
Involvement								
Community	-0.065	0.20	-0.872*	0.41	-0.293	0.47	-1.120	0.58
School	-0.304	0.25	-0.908*	0.43	-0.007	0.60	-1.617*	0.63
Church	-0.118	0.20	-0.722*	0.37	-0.094	0.47	-1.633*	0.53
Sports	-0.628*	0.21	-0.223	0.47	0.796	0.50	0.295	0.69
Scale of activities	0.120	0.08	0.496*	0.14	0.022	0.18	0.447*	0.21
School climate								
Disrespect	0.200*	0.10	0.682*	0.16	0.844*	0.23	0.599*	0.24
Backstabbing	0.116	0.11	0.286	0.21	0.736*	0.26	0.685*	0.30
Wouldn't intervene	-0.138	0.09	-0.057	0.15	0.671*	0.22	0.389*	0.22
Emotional disinvestment	0.425*	0.09	0.530*	0.16	0.703*	0.22	1.116*	0.23
Community disorder								
Serious	0.132	0.10	-0.046	0.20	0.648*	0.25	0.510	0.29
Minor	-0.048	0.10	0.171	0.18	-0.559*	0.24	0.796*	0.26
Parties	0.012	0.10	-0.198	0.21	-0.102	0.24	-0.221	0.30
Drinking/smoking	0.024	0.10	0.079	0.17	0.691*	0.23	0.649	0.25
Vandalism	-0.088	0.11	0.340	0.19	0.144	0.25	0.168	0.27
School disorder								
Serious	-0.108	0.11	0.148	0.19	-0.339	0.25	-0.28	0.27
Minor	-0.073	0.12	0.244	0.21	-0.523	0.28	-0.584	0.31
<i>R</i> <sup>2</sup>	.126		.161		.231		.235	

a. Reference category is freshman.

\**p* < .05.

significant and in the negative direction for girls, indicating that girls who experience higher levels of school-related stress reported significantly lower levels of risky behavior.

Parental attachment had no effect on levels of risky behavior for boys or girls. With the exception of serious delinquency among male students, the effect of this variable was largely inconsequential. This finding is somewhat surprising because the literature on social control and gender suggests that parental attachment should be a strong protective factor, particularly for young women. None of the involvement variables were significant predictors of risky behavior for girls. School involvement and church involvement variables remained significant ( $p < .05$ ) and in the negative direction for boys as they did in the serious delinquency model. It is also noteworthy that the direction of the association for sports involvement changed for both boys and girls in Model 2, although the variable was also nonsignificant in both. Consistent with Model 1, the activities scale variable in Model 2 was nonsignificant for girls and significant and positive for boys, which again points to the possibility that too many activities for males results in increased delinquency of both a serious and risky nature.

The school climate measures were all significant and positive for male and female students in predicting risky behavior. Both male and female students who reported higher levels of disrespect, backstabbing, lack of desire to intervene in problems, and emotional disinvestment also reported significantly higher levels of risky behavior. The effects of community and school disorder measures on risky behavior were more mixed. With the exception of minor crime in the community, none of the other crime and disorder measures were significant predictors of risky behavior among male students. In contrast, female students who reported higher levels of serious crime and drinking/smoking behavior in the community also reported significantly more risky behavior. A significant yet negative relationship was evident for minor crime among female students yet was positive and significant among male students.

As a final assessment of gendered differences, we conducted significance tests to determine if there were significant differences in magnitude of coefficients between male and female students for both delinquency measures. Because the goal of the research is to determine if there are gendered effects to the different dimensions of social control, these tests allow for a more complete assessment of the relationships. The formula developed by Paternoster et al. (1998) was used to determine if  $b_1 = b_2$ .

$$Z = \frac{b_1 - b_2}{\sqrt{Seb_1^2 + Seb_2^2}}$$

In this test, a  $z$  score above the absolute value of 1.96 (either positive or negative) indicates a significant difference between the two estimates at the .05 significance level (Patronoster et al., 1998).

The  $z$  scores for all differences in male and female coefficients can be found in Table 4. An examination of tests presented in Table 4 indicates significant differences between male and female students in a few areas. Considering the serious delinquency model first, significant differences were noted for the impact of the activities scale. This indicates that the level of involvement in activities is particularly problematic for male students. Levels of disrespect in the school environment also produced significantly higher levels of serious delinquency for male students compared to female students. Finally, levels of vandalism in the community resulted in significantly higher levels of serious delinquency for boys, although substantive significance is low because the original relationship in the multivariate model was not statistically significant.

Finally, we examined the significance tests of the  $z$  scores for the risky behavior model. The comparison of the coefficients for both male and female students indicated that males reported significantly more benefit from church involvement. Although there was a negative relationship to risky behavior for both male and female students, it was more pronounced for male students. Last, the relationship between minor crime in the community and risky behavior was significantly different and is of particular interest because the OLS model showed opposite effects for male and female students.

These combined results reveal several important conclusions about the relationship between social control and delinquency. The impacts of different dimensions of social control were more evident for certain indicators of involvement but not for parental attachment. Importantly, there appears to be a tipping point at which too much involvement can have a countereffect. The impact of school climate was also more predictive of risky behavior but not of serious delinquency. Community and school disorder measures did not have a clear impact on either outcome measure. Findings from Table 3, however, support the hypothesis that these relationships are gender and outcome specific. Parental attachment, for example, reduced levels of serious delinquency but only for young men. Involvement for male students beyond sports functioned as a protective factor for boys but had little impact on delinquency for girls. Sports, however, reduced serious delinquency for girls but had little effect for boys. These findings indicate that it is important to consider how measures of attachment and involvement function for boys and girls differently.

**Table 4**  
**Score Calculations: Female and Male Serious Delinquency**  
**and Risky Behavior**

Variables	Serious Delinquency	Risky Behavior
	$b_1 = b_2$	$b_1 = b_2$
Grade		
Sophomore	1.37	0.75
Junior	-1.46	-0.05
Senior	0.68	-0.68
Black/Hispanic	0.29	-1.11
Stress	0.52	-0.52
Parental attachment	1.92	0.20
Involvement		
Community	1.78	1.10
School	1.20	1.86
Church	1.45	2.17*
Sports	-0.78	0.59
Scale of activities	-2.34*	-1.55
School climate		
Disrespect	-2.54*	0.73
Backstabbing	-0.71	0.16
Wouldn't intervene	-0.45	0.90
Emotional disinvestment	-0.58	-1.32
Community disorder		
Serious	0.79	0.36
Minor	-1.06	-3.85*
Parties	0.92	0.31
Drinking/smoking	-0.28	0.12
Vandalism	1.99*	-0.06
School disorder		
Serious	-1.19	0.15
Minor	-1.29	0.14

\* $p < .05$  (for differences).

## Conclusion

This study set out to assess the relationship of social control theory to serious delinquency and risky behavior and had a particular interest in gender-specific analyses to determine whether the pathways to delinquency were different for young men than for young women. Focusing on a school-based sample of mostly upper-middle-class youth, we examined the effect of both school and community contexts on delinquency and risky behavior. We chose to disentangle more common measures of general delinquency,



sometimes referred to as trivial (Vold et al., 1998), into distinct measures of serious delinquency (violence, fighting, and carrying weapons) and risky behavior (smoking, drinking, and drunk driving), expecting that their pathways might vary by gender (Chesney-Lind & Sheldon, 2004). Not surprisingly, our general findings support the association between social bonds and both serious delinquency and risky behavior. More interesting are those findings that support significant gender-based differences in pathways to serious delinquency and risky behavior. Understanding the differing impact of various social control mechanisms for young men and women is critical for designing effective risk reduction programming, particularly in the school setting.

Contrary to expectations, attachment to parents did not exert a strong effect on either serious delinquency or risky behavior. Involvement in various prosocial activities, on the other hand, had multiple and complex effects on delinquency and risky behavior. Students who reported greater involvement in sport, church, community, and nonsport school activities reported significantly lower levels of serious delinquency. The only involvement variables that remained significant protective factors for risky behavior, however, were school and church activities. Thus, although involvement in activities may help keep young people away from serious delinquency, they do less to protect them from risky behavior such as heavy drinking, drunk driving, and smoking.

Although perceptions regarding community crime and disorder were more predictive of self-reported risky behavior than of serious delinquency overall, school climate was an important predictor of both. This supports a social control explanation of school factors because the relationship between negative school climate and negative behavior is consistently strong. Although not necessarily new, these findings confirm results found in other studies (Dornbusch et al., 2001; D. C. Gottfredson, 2001; Welsh, 2000) that school climate influences negative behavior. This study adds to our understanding of this effect; our findings of negative school environments in upper-middle-class suburban samples parallel findings in other structural contexts.

Among the most interesting findings are those that indicate forks in pathways to serious delinquency and risky behavior where young men and women diverge. Previous research suggested that attachment to parents may have a stronger influence on young women because their sense of self may be more closely connected to positive relationships with their parents, particularly during adolescence. Interestingly, our study found the opposite to be true. Increased parental attachment had no relationship to serious female delinquency but decreased the risk for serious male delinquency.

Parental attachment had little effect on either male or female risky behavior. Although there may be numerous explanations for these findings, including the potentially decreased importance of attachment to parents relative to friends and peers (Adler & Adler, 1998), particularly at the developmental stage of this sample, we would also suggest that our findings may be due in part to the way parental attachment was measured in this study. The survey instrument used in this study was limited to questions measuring authoritative parental control as opposed to measures of emotional attachment between parents and youth. Previous research suggests that the modes by which parents control young men and young women differ substantially, suggesting a need to capture better data on the quality of parent and youth attachment as opposed to just the degree of parental control (Block, 1984; Hagan et al., 1979).

Involvement in church and nonsport school activities significantly reduced serious delinquency for young men but not for young women. Involvement in sports, on the other hand, significantly reduced delinquency among young women but not among young men. These findings support new research that indicates that young women may benefit more from involvement in sports, particularly because they are less likely than young men to develop negative jock identities (K. Miller et al., 2006); these findings stand in contrast to recent research suggesting that increased sports participation by females has contributed to female aggressiveness (Garbarino, 2006). Further research should attempt to uncover what it is about participation in sports that protects young women from risk while exposing young men to increased risk.

The findings on involvement in this study suggest that the traditionally gendered mechanism by which we involve girls (church, community, and school) and boys (sports) are not protecting youth from delinquency. Instead, when girls are involved in nontraditional female activities (sports) and boys are involved in nontraditional male activities (church, community, and school), such involvement provides a significant protection from delinquency. Thus, the social control expectation that greater involvement in conventional, prosocial activities will lower delinquent behavior appears more complex than the theory articulates and appears to be structured by cultural gender norms.

An additionally important finding from this study is the possible tipping point of involvement in activities, particularly for young men. Although participation in individual activities, particularly church and school for boys and sports for girls, protects against delinquency, high levels of participation in numerous activities actually increases the risk of both serious delinquency and risky behavior for young men.

These findings have important implications for school programming. The sample used in this study is from an upper-middle-class school where strong emphasis is placed on athletic involvement. In such schools, it may be even more important to recognize the potentially different effect that involvement in sports can have for young men and young women. Is it possible that boys experience a negative peer effect from sports involvement, whereas girls experience one that has more positive peer relationships? By understanding why girls benefit from sports and boys do not, we may be able to design programming that taps into the positive, prosocial benefits that girls in this sample receive from participating in sports that could help deter all youth from delinquency.

Finally, this study offers a number of important findings that may affect programming designed to enhance school climate. Although neighborhood context and levels of crime in the community have a mixed impact on serious delinquency and risky behavior for young men and women, students who feel positive about their school environment are much less likely to engage in either serious delinquency or risky behavior. Specifically, increasing student respect for one another, enhancing emotional investment in the school community, and supporting student willingness to intervene in negative situations at school all have moderate effects on serious delinquency and strongly reduce risky behavior for both young men and women. These findings suggest concrete areas where schools can develop programming to address problems associated with negative school climates as a means of reducing delinquency.

The importance of gender for delinquency should not, as this research clearly shows, be underestimated. Previous researchers have called for gender-specific analyses of social control and other theories to assess the extent to which they accurately reflect pathways for young women's delinquency (Chesney-Lind & Shelden, 2004). This study takes these differentiated pathways into account, identifies gender differences in risk factors for delinquency and risky behavior, and offers specific suggestions for school-based programming to address gender-specific risks in different ways. In addition, by focusing on an upper-middle-class sample and including risky behavior, we have shown that delinquency and risk are varied and that the problems facing youth are not limited to urban minority settings. Future research should continue to explore different measures of delinquency and risk among samples of youth of all backgrounds to further both our theoretical and our practical understanding of what influences the varied acts of both young men and young women.

## Appendix A

### Variable Construction

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#### Dependent Variables

*Serious delinquency (3 indicators).* During the past 30 days, on how many days did you carry a weapon? During the past 12 months how many times were you in a physical fight? Are you involved in a gang?

*Risky behavior (6 indicators).* During the past 30 days, on how many days did you smoke? During the past 30 days, on how many days did you drink at least one drink of alcohol? During the past 30 days, on how many days did you have more than five drinks of alcohol in a row, within a couple of hours? During the past 30 days, how many times did you use marijuana? During the past 30 days, how many times did you drive a car when you had been drinking? During the past 30 days, how many times did you ride in a car driven by someone who had been drinking?

#### Other Test Variables (attachment and involvement)

*Stress (4 indicators).* In general, how much stress do your classes cause you? I feel I am in academic competition with my friends. The school atmosphere encourages academic competition. The atmosphere in the town encourages academic competition.

*Parental attachment factor (3 indicators).* On how many of the past 7 days did a parent or guardian (a) check on whether you had done your homework, (b) limit your TV watching, (c) check where you would be when not at home or school?

*School activity (7 indicators).* Are you involved in an academic group, service club, student government, peer leadership, band, choir, or drama?

*Sports (4 indicators).* Are you involved in intramural sports, junior varsity or varsity sports, or organized sports outside of school?

*Community (2 indicators).* Are you involved in an organized art group outside of school or organized club outside of school?

(continued)

## Appendix A (continued)

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### School Climate Variables

*Disrespect (6 indicators).* Guys in my school treat girls respectfully. Girls in my school treat guys respectfully. Guys in my school treat guys respectfully. Girls in my school treat girls respectfully. Teachers treat students respectfully. Students treat teachers respectfully. (The higher the score, the more disrespect in the school.)

*Backstabbing (3 indicators).* There is a lot of backstabbing at my school. Kids try hard at my school to fit in. There is a lot of peer pressure to conform. (The higher the score, the greater the problem with backstabbing and peer pressure.)

*Wouldn't intervene (3 indicators).* I would intervene in a situation where I thought a person was being mistreated. I would talk to someone who was doing something wrong in an effort to stop them from doing it. I would tell an authority figure if I knew someone was doing something wrong. (The higher the score, the less likely the respondent would be to intervene.)

*Emotional disinvestment (3 indicators).* Items left unattended are fair game for others to take. Ultimately, no one has the right to tell others what to do. I generally do not worry about the consequences of my actions. (The higher the score, the greater "not caring.")

### School Disorder Variables

*Serious school disorder (4 indicators).* How serious is sexual harassment, gang violence, sexual assault, pressure to join gang in your school? (*not serious, slightly serious, moderately serious, very serious*)

*Minor school disorder (4 indicators).* How serious is drinking, drugs, verbal insults, peer pressure at your school? (*not serious, slightly serious, moderately serious, very serious*)

### Community Disorder

*Serious community disorder (4 indicators).* How serious are the following in your community: burglary, domestic violence, weapons, vehicle theft? (*not serious, slightly serious, moderately serious, very serious*)

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(continued)

## Appendix A (continued)

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*Minor community disorder (2 indicators).* How serious is litter in your community? How serious is loitering in your community? (*not serious, slightly serious, moderately serious, very serious*)

*Parties (2 indicators).* How serious are house parties? How serious is drinking in the woods? (*not serious, slightly serious, moderately serious, very serious*)

*Drinking (3 indicators).* How serious is smoking, drinking alcohol, and skipping school in your community? (*not serious, slightly serious, moderately serious, very serious*)

*Vandalism (2 indicators).* How serious is vandalism? How serious is graffiti in your community? (*not serious, slightly serious, moderately serious, very serious*)

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## Appendix B Correlation Matrix

	X <sub>1</sub>	X <sub>2</sub>	X <sub>3</sub>	X <sub>4</sub>	X <sub>5</sub>	X <sub>6</sub>	X <sub>7</sub>	X <sub>8</sub>	X <sub>9</sub>	X <sub>10</sub>	X <sub>11</sub>	X <sub>12</sub>	X <sub>13</sub>	X <sub>14</sub>	X <sub>15</sub>	X <sub>16</sub>	X <sub>17</sub>	X <sub>18</sub>	X <sub>19</sub>	X <sub>20</sub>	X <sub>21</sub>	X <sub>22</sub>	X <sub>23</sub>		
Gender	X <sub>1</sub>																								
9th grade	X <sub>2</sub>	.01																							
10th grade	X <sub>3</sub>	-.07*	-.39**																						
11th grade	X <sub>4</sub>	.05	-.38**	-.35**																					
12th grade	X <sub>5</sub>	.00	-.31**	-.28**	-.27**																				
Race	X <sub>6</sub>	.06*	.02	.00	.01	-.03																			
Stress	X <sub>7</sub>	.06*	-.20**	.00	.14**	.08	-.08**																		
Parental attachment	X <sub>8</sub>	.00	.08**	.05	.00	-.15**	-.01	.15**																	
Community	X <sub>9</sub>	.04	-.03	-.06*	.05	.05	.00	.14**	.01																
School	X <sub>10</sub>	.03	-.04	-.03	.02	.06*	-.11**	.23**	.12**	.20**															
Church	X <sub>11</sub>	.11**	.06*	.04	-.05	-.07*	.05	.11**	.10**	.10**	.16**														
Sports	X <sub>12</sub>	-.07**	.12**	.04	-.07*	-.12**	-.05	.00	.10**	-.03	.01	.16**													
Activities scale	X <sub>13</sub>	.05	.03	-.01	-.03	.00	-.08*	.23**	.19**	.41**	.52**	.49**	.45**												
Direspect	X <sub>14</sub>	.11**	-.02	.00	.04	-.03	.04	.02	-.01	.03	-.05	.02	-.07**	-.01											
Backstabbing	X <sub>15</sub>	.14**	-.04	-.01	.07**	.03	.04	.22**	.05	.03	.02	.06*	-.02	.04	.34**										
Wouldn't intervene	X <sub>16</sub>	-.09	.03	.03	-.01	-.06*	.01	-.13**	-.12**	-.12**	-.16**	-.09**	-.05	-.19**	-.03	.15**									
Emotional disinvestment	X <sub>17</sub>	-.05	.10**	.00	.02	-.09**	.00	-.11	-.10**	-.04	-.12**	-.07*	-.04	-.12**	.04	.15**	.07**								
Community serious disorder	X <sub>18</sub>	-.03	.14**	.01	-.05	-.12**	-.01	-.01	0	0	-.11**	.06*	.10**	.02	.08**	.19**	-.03	.10**							
Community minor disorder	X <sub>19</sub>	.01	-.01	-.03	.05	-.04	-.01	.16**	.06*	.07**	.03	.05	.00	.09**	.14**	.25**	-.10**	.00	.25**						
Parties	X <sub>20</sub>	.14**	-.05	.02	.06*	-.04	.01	.15**	.06*	.00	.10**	.02	.10**	.15**	.29**	-.09**	-.04	.35**	.43**						
Drinking	X <sub>21</sub>	-.12**	-.10**	.04	.10**	-.05	.06*	.09**	.01	.00	-.06*	.02	.05	.05	.18**	.32**	.00	.12**	.12**	.29**					
Vandalism	X <sub>22</sub>	-.08**	.02	-.05	.03	-.01	-.05	.15**	.05	.04	-.02	.05	.06*	.11**	.12**	.29**	-.04	.02	.34**	.47**	.39**	.30**			
School minor disorder	X <sub>23</sub>	.05	.25**	-.42	-.10**	-.14**	.10**	-.07*	-.01	.03	.07	.03	-.04	.02	-.04	.24**	-.07*	.12**	.50**	.11**	.18**	.10**	.20**		
School serious disorder	X <sub>24</sub>	.07**	-.02	-.04	.08**	-.01	.00	.17**	.04	.11**	.09**	.11**	.00	.12**	.21**	.55**	-.11**	-.04	.13**	.34**	.49**	.27**	.30**	.22**	

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

## Notes

1. Hirschi (1969) differentiates between types of parents and specifically states that it is attachment to conventional parents that is critical. *Conventional* refers to their beliefs and reinforcement of normative values and behaviors. Youth attached to nonconventional parents, families whom Anderson (1999) refers to as "street families," would not offer the same protective features but could instead exacerbate problems.
2. We chose to exclude variables in traditional delinquency scales such as property crimes and theft and focus on behaviors more closely aligned with risky behaviors.

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