Re-Examining the Integrative Social Capital Theory of Crime

Rebecca S. Katz

Morehead State University, Morehead KY

ABSTRACT

Developmental theories of crime offer criminologists an opportunity to understand how early attachment processes and later attachment processes are linked to the development of empathy and desistance. Sampson and Laub's classic work illustrated that among non-substance-abusing men, attachments to partners or to work lead toward desistance (Sampson and Laub 1993). Similarly, Hagan and McCarthy's research further develops an integrated social capital theory of crime based upon numerous theoretical perspectives including revised strain theory, control theory, the sociology of emotions literature, and Braithwaite's reintegrative shaming (Hagan and McCarthy 1997; Braithwaite 1989; Hay 2001). However, Hagan and McCarthy omit the work of developmental psychology positing that early insecure attachment in conjunction with child abuse leads to a variety of negative developmental outcomes including mistrust, shame, doubt, and survival delinquency. This shame, as evidenced by Hagan and McCarthy's work, is reinforced by punitive criminal justice responses to youth crime leading to more criminal behavior. This paper re-examines Hagan and McCarthy's tenets using the National Educational Longitudinal Study. Findings illustrate that proactive rather than reactive responses to youth crime act to decrease shame and transform the effects of early insecure attachments indirectly leading towards desistance from some types of crime.

KEY WORDS: social capital theory; shaming; control theory; youth crime; strain theory

INTRODUCTION

Hagan and McCarthy's theoretical and empirical work in "Mean Streets" remains a significant addition to the criminological literature on homeless youth and street crime. However, while their work remains noteworthy their integrated social capital theory of crime could be improved by replacing Hirschi's control with John Bowlby's attachment theory. Hirschi's control theory emanated from John Bowlby's attachment theory and the latter theory offers a more succinct model of parent-child attachment. This theory offers an improved understanding of how reintegrative shaming leads to desistance from crime through the development of later attachment relationships thus increasing social capital. This work attempts to meet Hagan and McCarthy's call for additional research aimed at integrating the principles of several theoretical perspectives in order to create improved social structural solutions to the delinquency problem.

Bowlby's Attachment Theory

Bowlby's attachment theory posits that meeting the physical and psychological needs of the child through the first two years of life provides the template for all future relationships through the development of a secure attachment (Bowlby 1969, 1988; Horner, 1991; Katz, 1999; Katz, 2000; Bowlby 1988:11; Isabelle, Belsky, and von Eye 1989; Ainsworth, Walters and Wall, 1978; Greenberg, Cicchetti and Cummings 1992, Howing, Wodarski, Kurtz, and Gaudin 1993; Jacobson, Huss, Fendrich 1997; Moffitt 1997). This attachment is characterized by parents who are able to meet the physical and psychological needs of the child resulting in the development of the child's capacity for empathy (Bowlby 1988: 27). If the child's needs are not met, the result is an insecure attachment and an inability to exhibit empathy linked to the capacity

for later criminal behavior, particularly violent behavior (Richardson, Hammock, Smith, Gardner 1994; Ken-Ichi, and Mukai 1993; Born, Chevalier and Humblet 1997; Raine, Brennan, and Mednick 1997; Ward et al. 1997). Recent work also substantiates a relationship between early insecure attachments and the formation of later romantic attachment relationships characterized by violence (Bartholomew and Horowitz 1991; Griffin and Bartholomew 1991).

Interpersonal relationships of those with insecure attachment styles are also characterized by negative emotions (Ward et al. 1997). This insecure attachment in conjunction with the experience of childhood abuse produces negative emotions such as anger and shame (Dutton, Saunders, Starzomski, and Bartholomew 1994; Piquero and Sealock 2000; Katz 2000). These powerful negative feelings disrupt the ability to evince empathy (Roberts and Strayer 1996). Thus an individual's initial poor attachment with their primary caregiver(s) may have been their first "negative relationship with another person", the building block of Agnew's revised strain theory (Agnew 1992; Agnew 1997; Agnew 2001; Agnew, et al. 2002).

Strain Theory

A variety of studies testing revised strain theory provide substantial support for its tenets (Agnew and White 1992; Paternoster and Mazerolle 1994; Brezina 1996, 1998; Hoffman and Su 1997; Agnew and Brezina 1997; Broidy and Agnew 1997; Hoffman and Su 1997; Piquero and Sealock 2000; Brezina 1999; Mazerolle and Piquero 1997; Katz 2000; Agnew, Brezina, Wright, and Cullen 2002). Strain theory posits that stressful events in the family or neighborhood lead to negative emotions and subsequent delinquency, particularly if normative coping resources, like parental and peer support, are unavailable (Hoffman and Su 1997; Brezina 1996; Agnew and Brezina 1997; Mazerolle 1998). Most of this body of research reveals that strain explains delinquency, although it better explains delinquency as a coping response among males rather than among females (Katz 2000; Brezina, 1999; Agnew et. al. 2002; Broidy 2001). Only one recent test of Agnew's perspective provides limited support for its basic tenets (Mazerolle, et. al. 2000). This weak test is the result of problems with regard to the cross-sectional nature of the study; the conservative indicators of strain and anger used, the low risk population studied, and the failure to take into account severe forms of strain such as

child maltreatment or other serious family problems. Longitudinal tests of revised strain theory are better able to link early childhood maltreatment to the development of criminal behavior in adolescence and adulthood among both men and women (Widom and White 1997; Baskin and Sommers 1998; Dembo, Williams, Schmeidle et al. 1992; Dembo, Williams, Worthke, Scheidler, and Brown 1992; Weeks and Widom 1998; Widom 1996; Widom and Ames 1994; Wolf Harlow 1999; Katz 2000; Piquero and Sealock 2000; Agnew 1997). Recent theoretical work in revised strain theory also calls for further elaboration of the theory, however none of these works take into account Hagan and McCarthy's social capital theory of crime nor Bowlby's attachment theory (Brezina 2000; Agnew 2001). Agnew's reformulation makes it clear that specific personality dimensions, such as constraint or self-control and negative emotionality, condition the effects of strain on delinquency (Agnew et al. 2002). Further, a variety of research reflects that some of these personality dimensions are the product of the parent-child attachment (see Review by Katz 2000). Thus, strain theory can benefit from integrating Bowlby's attachment theory.

Another problem with the extant work on strain theory is the middle class background of most samples. However, a variety of other research reflects that it is among people embedded in extreme poverty within their family and neighborhood contexts who are least likely to have conventional coping strategies available to middle class respondents. Such youths' lives are characterized by hopelessness engendered by the absence of community attachments, by parental abandonment, or by violence and addiction. They cope by running away and becoming delinquent (Hagan and McCarthy 1997, Coulton, Korbin, Su and Chow 1995; Flowers 2001). These are normative responses to such conditions. In addition, police and criminal justice responses to these youth are characterized as stigmatizing and shaming, thus further disallowing the development of effective coping responses or constraints (Sommers and Baskin 1998; Pettiway 1997; Anderson 1997; Agnew et. al. 2002; Brezina, 2000; Hagan and McCarthy 1997). Therefore, although Agnew's recent more parsimonious version of general strain theory remains noteworthy, only Hagan and McCarthy's integrated theory substantiates the value of a model that integrates revised strain theory, control theory, and reintegrative shaming taking into account the effect of institutional responses to criminal behavior, especially among already severely strained and economically deprived

populations (Agnew 1999; Hagan and McCarthy 1997).

Social Capital Theory and Reintegrative Shaming

Hagan and McCarthy's model accounts for institutionalized responses in dealing with runaway street youth (Hagan and McCarthy 1997). One punitive and shaming method in Vancouver created more strain for already strained youth, while Toronto's social welfare and community assistance programs led street youth towards desistance while re-integrating them into the community (Hagan and McCarthy 1997).

Key to understanding this theory is that these street youth ran away from home in order to escape on-going strain that included maltreatment and addiction. These severe strains coupled with the surplus worker status of many of their parents created more shame. They cite Scheff's 1988 work on shame suggesting that it involves painful feelings of foolishness; feeling stupid, ridiculous, inadequate, defective, incompetent, awkward, exposed, vulnerable, and insecure; and having low self esteem (Hagan and McCarthy 1997, p. 194). Similarly, Stephen Tibbetts' 1997 review of the emotions literature reveals that shame is "a self conscious emotion involving feelings of worthlessness or weakness that result from global evaluations of self-concept regarding discrepancies between one's perceptions of self and ideal images of self" (p. 234-235). This process of disintegrative shaming processes result in these types of shame (Braithwaite 1989). But shame is not always deleterious if it emanates from reintegrative shaming. Thus no permanent loss in self-esteem will result from integrative shaming while disintegrative shaming will result in a permanent loss of self-esteem. Integrative shaming is a valuable child rearing practice but works only in the hands of a "responsible loving parent". In families where punishment occurs outside the bond of nurturing, encouragement and love, disintegrative shaming results (Braithwaite 1989, p. 56). Clearly, these ideas are congruent with Bowlby's concept of the secure attachment.

Braithwaite argues that reintegrative shaming, made possible by the parent-child bond or secure attachment, is what "makes serious crime unthinkable to most of us" (Braithwaite, 1989 p. 71). This unthinkableness is "a manifestation of our conscious or superego, or whatever we want to call it depending upon our psychological theoretical preferences" (Braithwaite 1989, p. 71). He later argues that "when we feel the pangs of conscience, we take the role of the other". This paper argues that this process occurring within the conscience is empathic responsiveness. Thus, a child's secure attachment is the result of integrative shaming used in the process of attending to and meeting the child's emotional and physical needs. The result is the child's capacity for empathy and normative non-delinquent behavior.

However, empathy may be developed later as the result of quality attachments to significant others, marriage, work, or fatherhood. These relationships act to repair the damage from earlier insecure attachments through reintegrative shaming techniques thus increasing social capital. This increase in social capital leads to desistance from crime and increases the capacity for empathy except among substance abusers (Sampson and Laub 1993; Katz 1999; Katz 2000; Farrall and Bowling 1999; Laub, Nagin, and Sampson 1998; Neilson, 1999; Farrington and West, 1995; Baskin and Sommers 1998; Neilson 1999).

Sampson and Laub's empirical work and Hagan and McCarthy's research illustrates the utility of using Coleman's concept of social capital in explaining this path towards desistance. Coleman's concept is best defined by Rosenfeld and Messner who cite Coleman's 1990 book on social theory, social capital is "embodied in the relations among persons…is created when the relations among persons change in ways that facilitate action…and inheres in social relationships that enable individuals to cooperate with one another to realize goals" (Rosenfeld and Messner 2001 p. 2, citing Coleman 1990, p. 302-304). Thus early secure attachment used in conjunction with reintegrative parental shaming techniques develops the capacity for empathy. Among those insecurely attached, later quality attachments to work, spouses, becoming a father, or being the recipient of progressive social welfare programming that uses the techniques of reintegrative shaming will lead to desistance. This re-examination of the integrated social capital theory replaces control theory with Bowlby's attachment theory and aims to re-examine these tenets using a recently collected sample of American youth.

Hypotheses:
1. Youth who have been arrested or confined will experience more shame than youth who have not been arrested or confined.

2. Youth with poorer attachments to their parents will also experience higher levels of shame.

3. Youth with higher levels of shame will be more likely to engage in violent behavior and substance abuse.

4. Youth with secure attachments to work or parents, and those experiencing reintegrative shaming through progressive social welfare programming will exhibit less shame and aggressive behavior. However, substance abusers will be least likely to desist as the result of these factors.

5. Youth who run away from home (higher levels of strain) will exhibit higher levels of shame and will be more likely to engage in violence and substance abuse.

6. Poor youth are more likely to experience higher levels of shame.

RESEARCH METHODS
Data Set

The data set used is the National Educational Longitudinal Study (NELS:88). NELS:88 is a panel study of eighth graders initially interviewed in 1988. Wave two was collected in 1990, and wave three was collected in 1992 when most of the youth were seniors in high school. Wave four was collected in 1994 when most of the youth were twenty years of age (not included in this analysis). The NELS:88 is stratified sample based upon the random selection of one thousand from a universe file of approximately forty thousand public and private schools (excluding the Bureau of Indian Affairs schools, special education schools for disabled children, area vocational schools, or schools for dependents of U.S. personnel stationed overseas). These one thousand schools include only those schools that agreed to participate in the panel study. Complete eighth grade rosters were created for each school, and twenty-four students were randomly selected from each list. After these initial students were selected, the remainder of the students on the rosters were grouped by race and ethnicity. Two to three Asian and Hispanic students were then selected from each school. Prior to the second wave, it was discovered that school principals and head masters had failed to place some students (allegedly disabled students) on their school rosters. In the follow-up years the Department of Education re-sampled from this group of youth. These base year ineligible students consisted of about five percent of the original sample.

Approximately 25,000 students from 1,000 schools were initially sampled in 1988. By the tenth grade most youth had moved from these one thousand middle schools to over five thousand high schools. Thus, high schools that contained ten or fewer 1988 NELS students were only sub-sampled during the second and third waves. The resulting 1992 sample was reduced to 14,915 students. Sample weights were utilized in order to constrain the sample to become representative of the general population.

While it is recognized that using a student sample is contrary to Hagan and McCarthy's objectives as street criminologists, this data set provides an opportunity to examine many of the issues examined in their work with a unique data set. For example, this data set provides current information about United States adolescents from the 90's. Moreover, the NELS:88 provides information with regard to whether or not these youth have ever run away, been arrested, been confined in a juvenile facility, or engaged in violent delinquency. Parent interviews were also conducted in the base year and are included in this analysis. Appendix one illustrates the coding for each of the independent and dependent variables as well as the factor loadings among variables used for each scale in the analysis. Therefore the following discussion of coding is somewhat abbreviated and readers should examine the appendix for more detailed information.

Dependent Variables

The primary dependent variables in this analysis include shame, involvement in aggressive behavior, and substance abuse. Two shame scales were developed from indicators of shame measured at wave one and wave three (see Appendix one). Four variables were found to load best onto this dimension reflecting the definitions provided previously. Principle components factor analysis reflects that each item loaded well onto the scale. Cronbach's alpha shows strong reliability for each scale. Wave one Cronbach's alpha was .949. Alpha reliability for wave three was .785.

Aggressive behavior is measured at waves one, two and three. Fighting at school in the base year was transformed into a dummy variable, with those youth involved in one or more fights coded as a one and all others coded as zeros. Only twenty-two percent of youth were involved in fights at school in the base year. Fighting at school in wave two was also transformed into a similarly coded dummy variable. Approximately sixteen percent of youth engaged in fighting at school at wave two. Finally, wave three fighting measured fighting to or from

school. This was coded from zero to two, with higher scores reflecting more frequent fights either going to or coming from school. By wave three approximately eight percent of youth engaged in this type of aggressive behavior to or from school.

Since substance abuse characterized the lives of those studied in both Hagan and McCarthy's and Sampson and Laub's work, substance abuse is accounted for here. Both alcohol and illicit substance abuse are measured by several scales composed of questionnaire items gathered both in wave two and three. The frequency of substance abuse among youth in the base year was too small to be developed into a scale. Initially, all wave two and wave three substance abuse variables were examined to determine the validity and reliability of a general scale. However, separate substances did not load well together. The items that continued to load together were cocaine use variables, marijuana use variables, and alcohol use variables. Therefore, three separate wave two and wave three scales were constructed. Wave two marijuana abuse was measured by two variables reflecting frequency of use over the last year and the last thirty days. These items loaded well onto one dimension and had a high alpha reliability (alpha=.839). The wave two-alcohol abuse scale consisted of two variables. One measured the frequency that the youth drank five or more drinks in a row, and the second measured the frequency of use of alcohol in the last thirty days. These two variables loaded well and had a good alpha reliability (alpha=.762).

The wave two cocaine use scale also consisted of two variables. These variables measure the frequency of use over the last thirty days and over the last year. These two variables loaded well onto one dimension and had a good alpha reliability (alpha=.734). Multicolinearity among the substance abuse scales was not problematic as none of the correlation coefficients were above .500.

The wave three alcohol abuse scale consists of three variables that loaded well together with an alpha reliability of .655. One variable measures the frequency of being under the influence of alcohol over the last year. A second variable measures the frequency of use of five or more drinks in a row in the last two weeks. The last variable measured the frequency of use of alcohol over the last year. The wave three-marijuana scale consisted of two variables. One variable measured the frequency of marijuana use over the last month. The second variable

measured the frequency of being under the influence of marijuana on the school grounds since the beginning of the school year. These items loaded well together and had an alpha reliability of .785. The cocaine wave three scale consisted of two variables. These variables measured the frequency of cocaine use over the last year and over the last thirty days. These items loaded well together and exhibit high reliability (alpha=.842).

Independent Variables

While the NELS:88 data set contains no variables accounting for severe family strain in the form of child maltreatment, family alcoholism or addiction, several variables are available to use as indicators of family strain. At waves two and three youth were asked if they had run away from home sometime in the last two years. Hagan and McCarthy's research as well as other work shows that youth who run away from home are often leaving abusive and chaotic family situations, thus this is a reliable indicator for severe childhood maltreatment. Approximately five percent of students reported having run away sometime in the last two years by wave three and five percent in wave two.

Several indicators of disintegrative shaming, such as measures of arrest and juvenile detention are available in this data set. Frequency of arrest is measured at wave two and three (see Appendix one). Additionally, the frequency of being held in a detention center at wave three is also available (see Appendix one). An indicator of more progressive juvenile justice processing or more reintegrative shaming is having been court ordered to complete volunteer work. Finally, one additional indicator of reintegrative shaming is the youth's presence in a dropout prevention program. Again, this is viewed as a progressive attempt to intervene in the lives of high-risk youth to prevent later delinquency.

Since Hagan and McCarthy's work parallels the work of Laub and Sampson with regard to the notion that increases in social capital act to change behavior or decrease shame and lead to desistance, this test also includes several employment indicators. While quality job attachment remains an ideal measure, no such variable exists in this data set. Thus the number of hours worked within the formal economy is taken into account both during wave two and wave three (see Appendix one).

Several indicators of attachment to parents are utilized here. The primary indicator for attachment measures the youth's belief that he or she has the trust of his or her parents. Thus, positive responses reflect a secure attachment style. Secondly, youth were asked in the base year if parents limited the

amount of time the youth spent with friends. Thus, higher scores represent parental control or limit setting. The final indicator measures parents' belief that the child has emotional problems. It is assumed that parents who failed to develop this initial attachment to the child might be more likely to report this. Finally, a key element of Agnew's revised strain theory that accounts for certain personality traits that constrain delinquent coping was also used. One scale was developed consisting of four variables at the base year as an indicator for high self-esteem (see Appendix one). Factor loadings represent one dimension and the alpha reliability was .728. Conversely, a second scale was developed using the same four variables from the third wave but measured in the opposite direction as an indicator for low self-esteem. Again, the factor loadings for this scale were good with an alpha reliability of .815.

Control Variables

Responses to juvenile delinquency are processed differently in rural versus more urban areas. Therefore, a control variable will be used with a one representing rural, two representing suburban, and three representing urban. Moreover, while inner city youth in America have exhibited violent behavior at school for some time, the recent spate of more serious rural and suburban school violence and the evidence with regard to bullying across all grades and types of communities warrants accounting for degree of urbanity. The youth's gender is also used as a control variable; females were coded as ones and males as zeros. Forty-five percent of the youth were males and forty-eight percent were females. Approximately eight percent of the sample was missing data on gender. Race was also used as a control variable. Race was transformed into a variety of separate dichotomous dummy variables in which whites were compared to all other groups, Blacks were compared to all other groups, and Hispanics were compared to all other racial groups, American Indians were compared to all other groups, and Asians and Pacific Islanders were compared to all other groups. Each separate racial or ethnic group was coded as one with all other groups coded as zeroes, thus five separate dummy race variables are utilized. The dummy variable representing whites compared to all others was multicolinear with the other dummy race variables. Therefore, the race variable of white was examined in a separate equation while the remaining race variables were used in the

same models. Ten percent of the sample was African American, twelve percent were Hispanic, six percent were Asian or Pacific Islanders, one percent of the sample was Native American, and sixty-two percent of the sample was white.

RESULTS
Shame

Shame at waves one and three were regressed onto all the independent variables and control variables using ordinary least squares regression. In these early models, shame was best predicted by self-esteem in the base year. High self esteem had a significant negative effect on high shame at wave one (see Table 1). Similarly, low self-esteem at wave three had a significant positive effect on high shame at wave three. Consistent with hypothesis two, two indicators of early attachment significantly decreased shame. Youth who believe that their parents trusted them were significantly less likely to experience shame. Similarly, youth whose parents reported emotional problems were significantly more likely to experience high shame at wave one. Although no such effects appeared on wave three shame, these indicators of attachment indirectly affect shame at wave three through the significant effect of shame at wave one. Thus youth with secure attachments to parents are less likely to experience high levels of shame and are more likely to have higher levels of self-esteem. This supports the integrated social capital theory of crime using revised strain theory and Bowlby's attachment theory. Only one indicator of secure attachment failed to demonstrate the expected effect, parents' limits on time spent with friends. Contrary to expectations, this variable significantly increased shame at wave one. This indicator may in fact measure more authoritarian or rigid and controlling parenting. Controlling time with friends to a great extent could also be indicative of a parenting style more reflective of disintegrative shaming or a highly punitive parenting style.

Congruent with hypothesis five, youth who ran away from home at wave two were significantly more likely to report higher levels of shame at wave three. This replicates Hagan and McCarthy's findings that youth who run-away from home experience high levels of shame. Recall that here running away from home is an indicator of severe family strain.

Other important effects include gender and race. At wave one only females were significantly more likely to experience shame. But at wave three only males were significantly more likely to experience shame. Moreover at waves one and three whites were significantly less likely to report high shame

(see tables one and two). However, at wave three, African Americans and Asian Americans were significantly more likely to experience shame than other racial or ethnic groups. These gender and racial differences appear to result from the inclusion of arrest, an indicator of disintegrative shaming. As delineated in hypothesis one, arrest at wave two and three significantly increase shame at wave three. The fact that males and some youth of color are more likely to experience shame after including this indicator of disintegrative shaming, illustrates that they may be more likely to be arrested, not necessarily more likely to commit crime. Another possible interpretation is that these youth are more likely to experience the unique disintegrative effects of arrest. Youth from families with high incomes were least likely to experience shame at wave one or three. This is congruent with hypothesis six and also replicates the findings of Hagan and McCarthy that class protects people from social structural levels of shame. Twenty-seven percent of the variance in wave one shame was explained using this model (see Table 1). There was little variation in the r-square among the separate equation containing the other indicators of race in wave or three. At wave three, thirty six percent of the variance was explained in shame (see Table 2).

Violence

Regressions on violence and substance abuse will be discussed separately. However, it should be noted that a variety of research has shown that substance abusers, particularly alcohol abusers, frequently engage in aggressive behavior. Further, while mounting evidence reveals that the relationship between these behaviors is reciprocal, evidence also clearly illustrates that early substance abusers follow a different pathway towards crime than that of those who begin involvement in violent behavior in early childhood (see Katz 2000b for review). These reciprocal effects will be briefly discussed in the conclusions section, but a thorough discussion of these relationships and these pathways is beyond the scope of this paper.

Logistic regression analysis was used to explain fighting at wave one and two. Ordinary least squares regression analysis was conducted to explain fighting at wave three. Thus the effects shown in tables one and two on fighting at waves one and two are unstandardized betas. Fighting at wave one does not include the arrest variable or the running away variable. The best predictors of wave one fighting include the indicators of attachment and shame, each in the expected direction. The indicators of secure attachment, parents trust in youth and parents' limiting time with youth significantly decreased involvement in fighting (see Table 1). The indicator of insecure attachment, parents belief that the youth has emotional problems, significantly increased fighting at wave one. These findings provide partial support for hypothesis four. This also supports using Bowlby's attachment theory within Hagan and McCarthy's integrative social capital theory to explain aggressive behavior. Youth reporting higher levels of shame were significantly more likely to engage in fighting at wave one. This provides partial support for hypothesis three and further support for the integrated theoretical model. Finally, females and youth from wealthy families were significantly less likely to report engaging in fighting at school by wave one. The Chi-Square statistic indicates that the data fit the model well and nine percent of the variance in fighting is explained using this model.

In the model for racial and ethnic minorities, the same variables that were significant among whites were also significant here. However, only African American and Native American males were significantly more likely to report fighting at school at wave one. Additionally, Asian Americans were significantly less likely to report fighting at school. In this model, youth from urban areas were less likely to engage in fighting but this effect only approached standard levels of significance. Similar to the above model, the chi-square remains significant, and approximately nine percent of the variance is explained.

The regression on fighting at wave two includes indicators of both reintegrative shaming and disintegrative shaming (see Table 1). As expected, shame at wave one continues to significantly increase fighting, but the effect is weaker. One interpretation may be that the reintegrative shaming variable may be demonstrating the expected effect, through affecting shame. However, it is not possible to disentangle this effect from the effect of arrest, since arrest and an indicator of disintegrative shaming are in the same model here. Although, contrary to hypothesis four, the disintegrative shaming indicator or the attachment indicator had no effect on fighting. Therefore, in the regression on fighting at wave three arrest and disintegrative shaming indicators will be included in separate equations. Also consistent with the previous models, running away from home at wave two significantly increases involvement in fighting at school in wave two. This provides further support for hypothesis five. Arrest at wave two significantly

Table 1: *Regressions models for shame Wave One, and fighting at School Waves One and Two*

Independent Variables	Wave 1 High Shame N=11,435	Wave 1[A] Fighting at School N=11,306	Wave 1 High Shame N=11,435	Wave 1[A] Fighting at School N=11,306	Wave 2[A] Fighting at School N=7,850
High Self Esteem Wave 1	-.456**	-.005	-.455**	-.016	-.001
Parents Time Limits w/ Friends	.022*	-.101**	-.020*	-.100**	-.016
High Family Income	-.102**	-.319**	-.102**	-.297**	-.124*
Whites Compared to all Others	-.034**	-.023	----------	----------	-.300**
Blacks Compared to all Others	----------	-----------	.014	.272**	.707**
Hispanic			.035**	.021	.286**
Native American			-.004**	.506**	.766*
Asians			.018*	-.466**	-.271+
Females	.051**	-1.505**	.052**	-1.513**	-1.191**
Parents Trust in Youth	-.120**	-.428**	-.120**	-.422**	-.352**
Fighting at School Base Year	----------	---------	-----------	----------	1.213**
Parents Report Child has Emotional Problems	.041**	.646**	.042**	.637**	.138
Shame Wave 1	------------	.211**	---------	.211**	.131**
Degree Urban	-.007	-.054	-.010	-.061+	-.048
Wave 2 Alcohol Abuse Scale					.308**
Run-Away Wave 2					.607**
Arrested Wave 3					.767**
Attended Drop Out Prevention Program					.055
Adjusted R^2	.273		.274		
Chi-Square	-----------	36.656**	--------	35.120**	
Chi Square White Equation					60.669**
Chi-Square Minority Equation					37.454**
Cox & Snell R^2	----------	.094	---------	.095	
Cox & Snell Minority Equation					.097**
Cox & Snell R^2 White Equation					.137**
P	.000	.000	.000	.000	
Constant	.605**	.726	.537**	.609	
Constant White Equation					-.647
Constant Minority Equation					-1.0881

Notes: **=p<.001-.000; *=p<=.05-.02; +=p=.10-.06
[A] This regression is a logistic regression, all effects are unstandardized betas.

increases fighting at wave two. Again the effect of class remains significant with youth from wealthier families being significantly less likely to report engaging in aggressive behavior. While whites were significantly less likely to engage in aggressive behavior, African Americans, Hispanic, and Native American males were significantly more likely to report involvement in fighting. Asian Americans were less likely to engage in fighting, but this effect only approached significance. Although it is beyond the scope of this paper to discuss these effects thoroughly, it should be noted that alcohol abuse at wave two significantly increases fighting at wave two. Both the minority and white regression models show significant chi-squares. However, the size of the chi-square varies by race as does the Cox and Snell r-square. The model for whites explains more variance in

fighting at approximately thirteen percent, while the chi-square statistic is larger (it should be recalled that a smaller chi-square reflects a better fit of the model). Conversely, minority model chi-square is smaller, but so is the r-square explaining about ten percent of the variance in aggressive behavior.

Separate regression models on wave three fighting to and from school were used to explore the differential effects of arrest compared to the effects of reintegrative shaming. The first equation in Table 2 is the model without the reintegrative shaming variables. While wave one shame has no affect on fighting at wave three, wave three shame significantly increases fighting, again supporting hypothesis three. Now only one indicator of secure attachment affects fighting and it is in the opposite direction than expected. Youth with parents who believed that the child had emotional problems were significantly less likely to engage in fighting. This

effect may be related to the aging of the sample and the differentiation of gendered responses to insecure attachment. That is females may be significantly less likely to act out aggressively at wave three as the result of an insecure attachment, but rather develop a variety of other kinds of problems (Broidy 2001; Katz 2000a and b). Additionally, these changes in the significance and direction of the indicators of attachment may be the result of capturing their effects indirectly through their previous effects on fighting at wave one and two. As other research illustrates, early involvement in fighting predicts later involvement in fighting. Again, as outlined in hypothesis five, youth who have run away from home, or experienced more severe strain, were significantly more likely to engage in aggressiveness. Thus, youth who experience severe strain within their families, as expected, are more likely to engage in aggressive behavior. Also as expected, arrest at wave three significantly increases fighting at wave three.

As in earlier regressions on fighting demonstrate, whites and Asian American males are significantly less likely to engage in fighting, while African American and Hispanic males are significantly more likely to engage in fighting. Also, youth from wealthier families are significantly less likely to report engaging in fighting.

Wave two and three alcohol abuse, as well as wave three cocaine abuse significantly increases aggressiveness at wave three. However, wave three marijuana abuse and wave three cocaine abuse significantly decrease involvement in aggressiveness. It is clear from examining these effects and looking at the regressions on substance abuse that violence and some forms of substance abuse have reciprocal effects. These pathways must be better understood in order to develop improved methods of preventing the relationship between violence and substance abuse. Again, it is beyond the scope of this paper to accomplish this goal here. Regression models for both whites and minority members reflect that approximately seventeen percent of the variance in aggressiveness at wave three is explained in this model.

Substance Abuse

The regression on wave two-alcohol abuse includes indicators of both reintegrative shaming and disintegrative shaming, as well as the same independent variables and control variables from

previous models explaining aggressive behavior. Moreover, aggressive behavior is also included as a predictor (see Table 2). However, the initial regressions on wave three substance abuse scales exclude the reintegrative shaming and social capital indicators, while they are included in Table 3 regression models. The goal is to determine how these indicators may or may not change the level of substance abuse.

Unlike the regression on fighting at wave two and contrary to hypothesis three, shame at wave one has no effect on alcohol abuse, while the effect of fighting at the base year and at wave two significantly increase alcohol abuse (see Table 2). (It should also be noted that the effects of alcohol abuse on fighting are greater than the effects of fighting on alcohol abuse). However, high self-esteem now acts as constraint to drinking by significantly decreasing alcohol use. Again, this effect was not seen in the regressions on fighting. This supports revised strain theory's major tenet that some personality traits act to constrain the delinquency coping response (Agnew, 1992; Agnew, 2001). However, as anticipated and congruent with hypothesis five, youth who run away from home are significantly more likely to engage in substance abuse. Consistent with hypothesis one, youth who are arrested were also significantly more likely to engage in alcohol abuse. Other types of substance abuse also significantly increase the severity of alcohol abuse. Finally, while the only indicator of reintegrative shaming in this model has no effect on alcohol abuse, it may have resulted in the insignificance of the shame variable. This will be further examined in the wave three models of other types of substance abuse in the next section, when this regression is compared to models of cocaine and marijuana abuse with and without the reintegrative shaming variables. In this model there is no support for hypothesis two, as the indicators or attachment do not have the expected effects on alcohol abuse. Contrary to hypothesis two but consistent with an earlier regression on fighting, youth whose parents limit the youth's time with friends are significantly more likely to engage in alcohol abuse. Again, this variable may be measuring controlling or rigid parenting rather than secure attachment.

While African Americans, Hispanics, Asian Americans, and females are significantly less likely to abuse alcohol, it appears that white males may be most likely to abuse alcohol. Further, youth from more urban areas are significantly less likely to engage in alcohol abuse. Approximately twenty four percent of the variance is explained in alcohol abuse using this model.

Table 2: *Regressions models for shame Wave Three, fighting at Waves Three, and Alcohol Abuse at Waves Two and Three, Pot Abuse at Wave Three and Cocaine Abuse at Wave Three*

Independent Variables	Wave 2 Alcohol Abuse N=7,921	Wave 3 Shame N=8,147	Wave 3 Alcohol Abuse N=6,434	Wave 3 Pot Abuse N=6,434	Wave 3 Cocaine Abuse N=6,434	Wave 3 Fighting Wave 3 N=6,434	Wave 3 Fighting with S.C. N=1,788
High Self Esteem Wave 1	-.051**	.026*	.015	-.026**	.005	.041**	.047+
Parents time Limits w/ Friends	.033**	-.009	-.004	-.007	.016	-.005	-.003
High Family Income	-.010	-.051**	.029**	.004	.004	-.023*	-.041+
Whites compared to others	.088**	-.017+	.064**	.006	-.022+	-.045**	-.004
Blacks Compared to others	-.090**	.032*	-.066**	.010	.000	.042**	-.001
Hispanic	-.020*	-.011	-.015	-.017+	.033**	.037**	.035
Native American	-.003	.001	-.017+	.008	.003	-.002	-.038+
Asians	-.074**	.011	-.038**	-.007	.004	.004	-.014
Females	-.033**	-.027*	-.094**	-.015	.001	-.045**	.029
Parents trust in youth	-.006	-.016+	-.042**	.022**	.013	-.008	.017
Fighting at School Base Year	.099**	------	.018+	.034**	-.014	.034**	.017
Fighting at School Wave 2	.078**	-------	.034**	-.017	.000	.209**	.272**
Fighting in School Wave 3			.038**	-.025*	.093**	-------	-------
Parents report child has emotional problems	-.005	.009	-.029**	-.021**	-.011	-.042**	-.050*
Shame Wave One	.000	.245**	.019	-.019	-.007	.005	-.034
Shame wave three		-------	.036**	.008	.000	.070**	-.012
Degree Urban	-.051**	-.007	-.021**	.027**	-.030**	-.001	-.005
Wave 2 Alcohol Abuse	-------	----------	.386**	-.070**	-.052**	.032*	-.021
Wave 3 Alcohol Abuse		-------	------	.298**	.092**	.050**	.096**
Wave 3 Marijuana Abuse		----------	.302**	-------	.250**	-.033*	.076**
Wave 3 Cocaine Abuse		----------	.070**	.188**	-------	.094**	.038+
Wave 3 Low Self Esteem		.463**	-.018	.028**	.016	-.033**	.041
Run-Away Wave 2	.057**	.076**	.045**	.064**	.055**	.040**	.009
Run-Away Wave 3		-.009	-.026**	-.056**	.006	.053**	.048*
Arrested Wave 2	.068**	.021*	-.004	.015	-.042**	-.014	.008
Arrested Wave 3	-------	.066***	.076**	.077**	.226**	.200**	.096**
Attended Drop Out Prevention Program	.006	------	--------	-------	---------	--------	.021
Wave 2 Pot Abuse Scale	.350**		-.084**	.403**	-.095**	.036*	.019
Wave 2 Cocaine Abuse Scale	.054**		-.017	-.502**	.084**	-.050**	-.047*
Equation 2 Court Ordered to do Volunteer Work Wave 3							.092**
Hours Worked p/w Base Year							-.006
Hours Worked p/w Wave 2							.025
Hours Worked p/w Wave 3							.005
R² White Equation	.242**	.354**	.371**	.376***	.175**	.171***	.149**
R² Minority Equation	.246	.356**	.370**	.377***	.175**	.174**	.151**
P	.000	.000	.000	.000	.000	.000	.000
Constant White Equation	-.006	.266	-.006	-.005	-.009	.009	.003
Constant Minority Equation	.146	.218	.102	-.005	-.140	.006	.002

Notes: **=p<.001-.000; *=p<=.05-.02;+=p=.10-.06

[1] This regression is a logistic regression, all effects are unstandardized betas.

[2] The constant in the whites compared to all other racial groups' model was -.295, in the model containing minority members compared to all others the constant was -.321).

The model explaining alcohol abuse at wave three reveals that one of the best predictors is wave three shame. Thus, it appears that the inclusion of the reintegrative shaming indicator in the model on wave two alcohol abuse (see above discussion) does decrease the effect of shame, thus partially supporting hypothesis four. Reintegrative shaming acts to negatively effect shame indirectly in the alcohol abuse models just as it did in the fighting regressions. Running away at wave two significantly increases alcohol abuse as predicted by hypothesis five. While contrary to hypothesis five, running away at wave three significantly decreases alcohol abuse. The effect of arrest at wave three is also congruent with hypothesis one. Arrested youth are more likely to engage in alcohol abuse. Only one indicator of attachment had an effect in the expected direction. Youth who report that their parents trust them were significantly less likely to engage in alcohol abuse. However, the indicator of insecure attachment, parents' reports that their child has emotional problems, also significantly decreased alcohol abuse. This variable may be measuring other manifestations of strain different from alcohol abuse. Fighting at waves two and three significantly increases alcohol abuse. Also as expected and congruent with previous research, alcohol abuse at wave two significantly increases alcohol abuse at wave three. Also marijuana and cocaine abuse at wave three significantly increase alcohol abuse at wave three. However, wave two marijuana abuse negatively affects alcohol abuse at wave three. This may support the existence of some unique pathways of development among those who abuse specific types of substances.

Youth from wealthier families are significantly more likely to abuse alcohol at wave three. White males remain significantly more likely to abuse alcohol at wave three. However, African Americans, Native Americans, Asian Americans, and females are significantly less likely to abuse alcohol at wave three. It should be noted that the direction of the effect remains negative for Hispanics, but it loses its significance from the wave one model on alcohol abuse. Again, youth from more urbanized areas are significantly less likely to abuse alcohol. Approximately thirty-seven percent of the variance in alcohol abuse is explained using this model.

Marijuana abuse at wave three is best explained by alcohol abuse at wave three and cocaine abuse at wave three. Interestingly, while aggressiveness in the base year significantly increases marijuana abuse at wave three, wave three fighting significantly decreases marijuana abuse at wave three. This provides some support for the above-discussed proposition that substance abuse pathways are unique and disparate from pathways toward traditional types of delinquency. Moreover, while there is a reciprocal effect among these forms of deviance, it suggests to criminologists studying these behaviors that separate scales should be developed for these behaviors when used as independent or dependent variables, thus taking into account these unique paths of development.

Indicators of secure attachment again reflect no support for hypothesis two. In fact of some of these effects are in the opposite direction from the expected. Parents' trust in the youth significantly increases marijuana abuse, while youth whose parents report that the youth has emotional problems are significantly less likely to abuse marijuana. While the latter affect was explained above, the former is more difficult to understand. Perhaps, again as the youth ages, this variable begins to measure something entirely different. Perhaps the parents' trust is now exploited by the youth to cover up his or her abuse of an illegal substance.

As anticipated and as shown in the regression on alcohol abuse at wave two, wave one high self-esteem significantly decreases marijuana abuse at wave three. It again appears to act as a constraint to delinquent coping, as predicted by revised strain theory. Moreover, high self-esteem may be the product of a secure attachment. Thus secure attachment may indirectly affect marijuana abuse through high self-esteem. By extension, wave three low self-esteem significantly increases marijuana abuse.

Also contrary to expectations, shame has no effect on marijuana abuse at wave three, partially disputing hypothesis three. Moreover, as seen below, shame also has no effects on cocaine abuse. Thus, it appears that shame only acts to increase violence and alcohol abuse. As expected, running away at wave two and arrest at wave three significantly increase marijuana abuse at wave three. However, running away at wave three significantly decreases marijuana abuse at wave three. Wave three alcohol and cocaine abuse significantly increase marijuana abuse at wave three. Thus, perhaps as substance abusers continue to age, they are more likely to move from separate pathways of development toward one pathway characterized by the abuse of a multitude of different substances, or whatever is most easily available. This is reflected by the significant negative effect of alcohol abuse at wave two on marijuana abuse at wave three.

Finally, wave two-marijuana abuse significantly increases wave three marijuana abuse.

Interestingly, most of the earlier demonstrated effects of race, class, and gender disappear in this model explaining marijuana abuse at wave three. Being Hispanic decreases marijuana abuse, but the effect only approaches significance. This may reflect that marijuana abuse has become equally common or uncommon among older youth in the 1990's. Thirty-eight percent of the variance in marijuana abuse was explained using this model.

Cocaine abuse at wave three is best explained by marijuana abuse at wave three and being arrested at wave three. Both of these significantly increase cocaine abuse. While arrest at wave three leads to the increased abuse of cocaine, arrest at wave two significantly decreases cocaine abuse at wave three. This provides mixed support for hypothesis one, and may reflect that there may be some sort of short term deterrent effect associated with social embarrassment or anxiety fear with regard to the abuse of cocaine that is not associated with other forms of substance abuse or fighting (Tibbetts, 1997). Overall arrest increases most forms of substance abuse and aggressiveness, thus providing support to Braithwaite's reintegrative shaming theory that arrest or punitive measures are disintegrative rather than reintegrative. Similarly, consistent with revised strain theory and the social capital theory of crime, running away at wave two significantly increases cocaine abuse at wave three. This is congruent with hypothesis five. In this model, attachment, shame, and self-esteem effects are non-existent. It could be argued that the pathway leading toward cocaine abuse is quite unique from other forms of substance abuse. This is supported by the negative effects of alcohol abuse and marijuana abuse at wave two on cocaine abuse at wave three. Each of these types of early substance abuse significantly decreases later cocaine abuse. However, as the respondents age, alcohol abuse, marijuana abuse, and fighting at wave three each significantly increase cocaine abuse at wave three. The strongest of these effects is marijuana abuse, thus perhaps these two forms of substance abuse have the greatest behavioral link as the respondents age.

Among the control variables Hispanics are significantly more likely to abuse cocaine, while whites are less likely to abuse cocaine, but this effect only approaches significance. Moreover, living in a more urban area significantly decreases cocaine abuse at wave three. Only

eighteen percent of the variance in cocaine abuse at wave three is explained using this model.

MODELS WITH REINTEGRATVIE SHAMING AND SOCIAL CAPITAL INDICATORS

Table 2 illustrates the regression equation on fighting at wave three that includes indicators of reintegrative shaming and work attachment variables (see Table 2). While only one of these indicators illustrates a significant effect, and it is in the opposite direction than expected, a variety of other changes occur in the model. First, the direction of the effects of both shame scales changes, and shame at wave three loses its statistical significance. Thus as hypothesized, reintegrative shaming techniques decrease the effect of shame on violence. This is consistent with Hagan and McCarthy's research in Canada reflecting that progressive social welfare programming assists in leading street youth towards desistance. It is also consistent with the desistance effects of work, as illustrated in Sampson and Laub's social capital model. Moreover, the effects of running away at both wave two and three either disappear or decrease in strength after including the social capital indicators (attachment to work and reintegrative shaming variables). Specifically, running away at wave two loses its significance and running away at wave two decreases in size. Also congruent with the integrated social capital theory of crime, arrest at wave three loses its strength by decreasing substantially in size. The positive effect of high self-esteem at wave one loses substantial strength in this model while the negative effect of low self-esteem at wave three loses its significance. Thus, with regard to aggressive behavior, early levels of high self-esteem may be capturing a form of youthful over-confidence or arrogance, while low-esteem at older ages may be more likely to account for humility, thus prohibiting aggressiveness. Moreover, when reintegrative shaming and attachment indicators are included in the model, arrogance is least likely to lead toward aggression, while humility is simply unimportant.

Similarly, fighting in the base year loses its significance, reflecting that intervention with early initiators of aggressive behavior can be successful if progressive social welfare policies or forms of reintegrative shaming are used. This supports hypothesis four and the integrative social capital theory of crime. However, the effect of wave two fighting increases in strength in this model. This may reflect that effect if wave one fighting only reappears indirectly through its effect on wave two fighting, or that the effects of reintegrative shaming and work attachments require a greater time lag to demonstrate their negative effects. Wave two

alcohol abuse and wave three cocaine abuse effects lose their significant effects on violence at wave three, while alcohol and marijuana abuse effects at wave three increase their effect on violence at wave three. This may reflect support for previous research revealing that violent men or women who are also substance abusers are least likely to desist as the result of attachment relationships (Sampson and Laub, 1993; Baskin and Sommers, 1998). Moreover, being court ordered to complete volunteer work at wave three has a significant positive effect. This may be the result of having inadvertently captured a more punitive court response than was intended. In other words, if the youth ends up in court and is ordered to work, he or she has already been arrested and suffered the disintegrative shaming effects.

Finally, very notable changes in some of the gender and race effects occur here. The earlier gender, class, and racial effects in this equation almost completely disappear. Specifically, the effect of being Native American begins to approach standard levels of significance. This may reflect the cultural history of communitarianism among Native American tribes that may make them more amenable to the effects of reintegrative shaming. Moreover, the elimination of the positive effect of being African American and Hispanic on violence also reflects that reintegrative shaming techniques work for these specific racial or ethnic groups and leads towards desistance. Moreover, the social capital variables may have evened the playing field between whites and minority members. That is whites are now no less likely to be involved in violence than other racial groups. Additionally, the protective of effect of class loses some strength and now only approaches significance. This reflects support for Hagan and McCarthy's findings that poverty itself is disintegrative and that socially progressive programming can cancel out the poverty effect. Finally, reintegrative shaming and work attachment indicators also appear to even the playing field among men and women. Now males, as result of reintegrative shaming and work attachments, are just as likely as women to avoid involvement in aggressive behavior. However, this model only explains approximately fifteen percent of the variance in violent behavior at wave three.

Table 3 illustrates the final regression equations on wave three shame, and wave three marijuana abuse, cocaine abuse, and alcohol abuse after including the reintegrative shaming and work attachment indicators.

Some changes in the wave three shame model are illustrated in Table 3. One indicator of secure attachment increases in strength. The youth's reports of parents' trust significantly decreases shame at wave three. This is consistent with the proposed theoretical mode and with hypothesis four. Recall that hypothesis four and the new integrated model of social capital theory that posits that new attachments to work or reintegrative shaming techniques will modify old attachment templates and thus decrease shame. However, the other two indicators of attachment have effects in the opposite direction as expected. Additionally, these effects also become significant. Parents who limit the time that youth spend with friends significantly increases shame at wave three. Also parents who report that the youth has emotional problems significantly increases shame at wave three. One explanation of these changes lies within the significant positive effect of being court ordered to complete volunteer work. This indicator may have inadvertently measured a post arrest court appearance thus taking into account disintegrative shaming. This then increased the effect of the parents' limiting time with friends. This is congruent with the change in the significance of the effect of belief that the youth has emotional problems, that is more rigid parenting coupled with disintegrative criminal justice techniques act together to increase the effect of the parents' belief. This also supported by the measure of being court ordered to work may have indirectly tapped into a punitive or disintegrative shaming effect as illustrated in the change of strength of the significant positive effect of shame at wave one on shame at wave three.

Also contrary to expectations, working an increased number of hours per week at wave two significantly increases shame at wave three. This may reflect that working a great number of hours per week (higher codes reflect working from thirty to forty hours per week) at age fifteen and sixteen (recall that most of the youth are in tenth grade at this time) may be something that only some youth have to do, like those helping out their families, or conversely youth who need the money to pay for an alcohol or drug habit. Either of these possibilities explains an increase in the experience of emotional shame. Other indicators of social capital (one work attachment variable and another reintegrative shaming indicator), hours worked in wave three, and attendance at a dropout prevention program, have no direct effects. It is posited here that the effect of these indicators is illustrated through their effects on the indicator of secure attachment, youth's report of

parents' trust. This again supports the theoretical model proposed in the paper, that is to integrate John Bowlby's attachment theory rather than Hirschi's control theory with revised strain theory and Braithwaite's reintegrative shaming theory. Approximately, forty percent of the variance is accounted for in this model explaining shame at wave three.

Congruent with hypothesis five the inclusion of all the social capital variables leads the effect of shame at wave three to lose its significance on alcohol abuse at wave three. alcohol abuse in conjunction with use of controlling time spent with friends leads both to have a significant positive effect on alcohol abuse. Both appear to be forms of disintegrative shaming that increase rather than decrease deviance. In this

Table 3. *Regression Model Including Social Capital Variables and Wave Three Shame, Alcohol, Cocaine, and Marijuana Abuse*

Independent Variables	Wave 3 Shame N=2169	Wave 3 Alcohol Abuse N=3626	Wave 3 Cocaine Abuse N=3626	Wave 3 Marijuana Abuse N=3626
High Self Esteem Wave One	.064*	.003	-.033+	-.007
Parents time Limits with Friends	.034*	.040**	.010	-.018
High Family Income	-.020	.028*	.016	-.025+
Whites compared to all others	-.016	.059**	-.023	-.004
Blacks Compared to all others	.001	-.064**	-.006	.031**
Hispanic	.007	-.015	.046**	-.027+
Native American	.019	-.014	-.005	.017
Asians	.020	-.030*	-.001	-.002
Females	.002*	-.093**	.001	-.005
Parents trust in youth	-.040*	-.053**	.028+	.019
Fighting at School Base Year	--------	.046**	.016	.025+
Fighting at School Wave Two	---------	-.008	-.027	.008
Fighting at School Wave Three	--------	.016	.103**	-.001
Parents report child has emotional problems	.045*	-.029*	.010	-.023+
Shame Wave One	.254**	.011	-.038*	-.001
Shame Wave Three	-----	.015	.054**	-.002
Degree Urban	-.032+	-.028*	-.044**	.038**
Wave 2 Alcohol Abuse	----------	.370**	-.057**	-.080**
Wave 3 Alcohol Abuse	--------	---------	.121**	.269**
Wave 3 Marijuana Abuse	---------	.287**	.296**	-----------
Wave 3 Cocaine Abuse	---------	.094**	---------	.214**
Wave 3 Low Self Esteem	.526**	-.002	-.049**	.037**
Run-Away Wave 2	-.035**	.049*	.016	.095**
Run-Away Wave 3	.008	-.037*	.021	-.073**
Arrested Wave 2	.016	-.010	.017	-.006
Arrested Wave 3	.033+	.063**	.068**	.006
Attended Drop Out Prevention Program Wave 2	.017	.000	-.016	-.013
Wave 2 Pot Abuse Scale	-------	-.060*	-.078**	.431**
Wave 2 Cocaine Abuse Scale	-------	-.020	.071**	-.006
Equation Two Court Ordered to do Volunteer Work Wave 3	.059*	.024+	-.027+	.018
Hours Worked p/w Base Year	-.012	-.027*	-.010	-.011
Hours Worked p/w Wave 2	.033*	.012	-.010	-.010
Hours Worked p/w Wave 3	.022	.002	.029+	-.010
R^2 White Equation	.407	.341	.148	.387
R^2 Minority Equation	.353	.342	.149	.388
P	.000	.000	.000	.000
Constant White Equation	-.004	-.001	-.002	.006
Constant Minority Equation	-.007	.145	-.008	.005

Notes: **=$p<.001$-.000; *=$p<=.05$-.02; +=$p=.10$-.06

model the negative effect of being Native American loses its significance. No other salient changes are noted in the race or gender effects. The effects of wave one, wave two, and wave three fighting on alcohol abuse also change. Wave one fighting significantly increases alcohol abuse at wave three. However, wave two and wave three fighting lose their strength on alcohol abuse at wave three and no longer have any effect. In conjunction with the on-going positive effect of alcohol abuse at wave two, this pattern seems to illustrate that the inclusion of the other reintegrative shaming and social capital indicators lead youth who were both early drinkers and early fighters only towards desistance from later forms of aggressive behavior, but not alcohol abuse. However, these effects are indirect, as none of the social capital indicators have direct negative effects on alcohol abuse at wave three. Consistent with previous models, being court ordered to work increases alcohol abuse, although the effect only approaches significance. No other salient changes in the model are shown.

In the model explaining marijuana abuse at wave three, the social capital indicators have no direct desistance effects on marijuana use. However, one indicator of secure attachment does change. Parents' trust in the youth loses its significant positive effect. Thus, the inclusion of the social capital variables do appear to modify the original attachment template indirectly, but as expected they fail to have a direct desistance effect on marijuana abuse. Additionally, social capital indicators also appear to lead the fighting indicator at wave one and wave two to lose their strength. However, little change occurs in the effects of other forms of substance abuse on marijuana use at wave three. Again, social capital and reintegrative shaming indicators appear to disentangle the aggressive and substance abusing pathways, by leading those who began fighting in early adolescence (eighth graders and tenth graders) to desist, while minimal desistance effects on the early substance abusers are noted (the negative effect of wave two alcohol abuse does increase slightly in this model by .10). Similarly, no desistance effects are illustrated among those who begin acting out aggressively later (seniors in high school).

However, consistent with the new social capital theory of crime, another indirect effect of the social capital indicators is illustrated in the change of the effect of arrest on marijuana abuse at wave three. The effect of arrest at wave three loses its significance, since it no longer increases marijuana abuse at wave three. But the effect of running away at wave two increases rather than decreases in strength. Perhaps those who experience early strains in the family are less likely to decrease their usage even with reintegrative shaming interventions. Conversely, these interventions are strong enough to facilitate a stronger negative effect of running away at wave three on marijuana abuse at wave three. In other words, reintegrative shaming may decrease the damage done by early family strain. In this social capital model African Americans are significantly more likely to abuse marijuana, while the likelihood of Hispanics being significantly less likely to abuse marijuana now increases slightly. Youth with families making more money are now less likely to abuse marijuana but this effect only approaches significance. Urban youth are now slightly more likely to abuse marijuana. Thirty-eight percent of the variance in marijuana abuse at wave three is explained using this model.

In the model explaining cocaine abuse at wave three one of social capital indicators illustrates a significant effect. Specifically, contrary to previous models and hypothesis four, being court ordered to complete volunteer work decreases cocaine abuse, although the effect only approaches significance. Moreover, high self-esteem now decreases cocaine abuse, although this effect also only approaches significance. Additionally, the effect of low self esteem changes and significantly decreases cocaine abuse while the effect of secure attachment increases cocaine abuse. However, this effect only approaches significance. All of the changes in the model make intuitive sense in light of the indirect effects of the social capital variables discussed in previous models. However, the unique effect here of court ordered work may be the result of the path uniqueness of the path leading to cocaine abuse. For instance, the drug is expensive, thus wealthy or well to-do youth are more likely to have the opportunity to buy it and use it. Thus, when well-to-do youth are court ordered to do volunteer work, they may suffer such embarrassment or shame that at least short term desistance from cocaine abuse is the result (Tibbetts 1997). Secure attachment may act to increase cocaine abuse partly as the result of this specific drug of abuse, its likely use by more well-to-do youth (even though the class effect is not significant, the direction remains positive), that may engender over-concern or doting behaviors that only facilitate more resentment by the youth and thus more cocaine abuse. Two changes occur in the strength of gender and race effects in this model. In this model whites are no less likely to abuse cocaine than other racial groups. However, Hispanics

continue to be significantly more likely to abuse cocaine and the effect becomes somewhat stronger. The significant negative effect of degree of urbanity increases somewhat. Fifteen percent of the variance in cocaine abuse at wave three is explained using this model.

CONCLUSION

Although Sampson and Laub found that increases in social capital failed to lead towards desistance among violent men, partly because they also had drinking problems, Hagan and McCarthy found that more modern reintegrative shaming criminal justice policies acted to decrease the substance abuse problems of runaway youth. This work illustrates partial support for both perspectives. Specifically, only cocaine abusing youth who are court ordered to complete volunteer work are led towards desistance and only those youth who work more hours in early adolescence are led towards desistance from alcohol abuse. By extension, youth who are involved in aggressive behavior are both more likely to abuse substances and are the least likely group to be led towards desistance by reintegrative shaming techniques or attachments to work. Nonetheless, increases in social capital do indirectly decrease shame as well as decrease shame's effects on violence, alcohol abuse, and marijuana abuse. Increases in social capital also act to increase the negative effect of early secure infant parent attachment on alcohol abuse and marijuana abuse. It is apparent then that using Bowlby's attachment theory, rather than Hirschi's control theory, provides greater strength to the model and including reintegrative shaming indicators as well as attachments to work remain necessary in re-examining both Hagan and McCarthy's as well as Sampson's and Laub's social capital theories.

Clearly, more work is needed to replicate Hagan and McCarthy's work. Such research should utilize improved indicators for reintegrative shaming such as residential group homes, day treatment and job training, drug court participation, and perhaps even successful completion of restorative justice processes, as suggested by Braithwaite himself. Restorative justice programs facilitates the healing of the crime victim's trauma, heals offenders, transforms the relationship between offenders and their victims, and sometimes leads towards forgiveness (Umbreit 2001). Therefore, it is important to measure quality job attachments, rather than simply hours worked at a job per week as well as quality marital attachments and successful participation in restorative justice programming.

There are some problems with the model specification. First respondent attrition remains a problem in this longitudinal data set, as it does in many others. Moreover, no effort was made to measure the differences between high school dropouts and those youth who remained in school. Therefore, future work should include missing data analysis as well as an analysis of the high school dropouts. Moreover, there are some causal order problems. For example, wave two fighting was predicted by running away at wave two. Clearly, it is recognized that there may be a causal ordering problem here. In other words, an adolescent who fights at school at wave two cannot also be a runaway. However, readers are reminded that this variable was selected as a proxy indicator for severe strain or childhood maltreatment. But this author and readers have no way of knowing which of these events preceded the other. Nonetheless, this model should be interpreted cautiously. A similar problem exists with the indicator of fighting at wave three coming to or from school. However, it should be mentioned that there may be some times when youth run away from home, and then return for brief periods, begin attending school, and subsequently engage in aggressive behavior or visa versa. But time spent away from home during runaway periods is unavailable so again these particular results should be interpreted cautiously. Future work should attempt to replicate this test by teasing out the causal order problem here or measuring self reported aggressiveness outside of school. After all this was a paramount criticism in Hagan and McCarthy's "Mean Streets", to get criminologists away from measuring minor delinquency in school and get out on the streets talking to our most deprived and abused young people who use delinquency as a survival tool and need serious social assistance. Another problem with the extant test is that there were no indicators available to use to measure the process of empathic responsiveness or its development. These processes are assumed to take place through a secure attachment in early infancy and through reintegrative shaming or quality attachments to work later in life. Clearly, the empirical evidence reveals that such a process is taking place, but better indicators must be used to verify more fully this portion of the model. Additionally, data collected must begin to take into account early parent infant attachment in the first two years of life, rather than using measures to account for this attachment in early adolescence.

The unique effects of race, class, and gender also require that criminologists stop using dummy variables to measure a lifetime of unique cultural and socialization experiences. We must begin to examine each specific racial, ethnic, gender, and socio-economic group separately to better understand the unique predictors for each group, as well as the unique kinds of programming required to lead towards desistance. Agnew's recent more parsimonious strain model calls for such analyses. Moreover, other empirical work has previously demonstrated the efficacy of such modeling (Agnew 2001; Katz 2000a).

Finally, it is quite clear that arrest is disintegrative, creates shame and increases the propensity for violence and substance abuse among adolescents. Therefore, we must begin to call upon policy makers to transform the punitive criminal justice system and educate the public by informing them that the system does not work to end crime but only facilitates more of it.

REFERENCES

Adams, Mike, S., Johnson, James, D. and Evans, T., David. 1998. "Racial Differences in Informal Labeling Effects." *Deviant Behavior* 19:157-171.

Agnew, Robert. 1991. "Adolescent Resources and Delinquency." *Criminology* 28:535-566.

Agnew, Robert. 1992. "Foundation For a General Strain Theory of Crime and Delinquency." *Criminology* 30:47-87.

Agnew, Robert. 1993. "Why Do They Do It? An Examination of the Intervening Mechanism Between 'Social Control' Variables and Delinquency.*" Journal of Research in Crime and Delinquency* 30:245-266.

Agnew, Robert. 1997. "Stability and Change in Crime over the Life Course: A Strain Theory Explanation." *In Developmental Theories of Crime and Delinquency. Volume Seven. Advances in Criminological* Theory. Editor, Terence Thornbery. Transaction Publishers, New Brunswick and London.

Agnew, Robert. 1999. "A General Strain Theory of Community Differences in Crime Rates." *Journal of Research in Crime and Delinquency*. 36:123-155.

Agnew, Robert and White, Helene Raskin. 1992. "An Empirical Test of Strain Theory." *Criminology* 30:475-499.

Agnew, Robert and Brezina, Timothy. 1997. "Relational Problems with Peers, Gender, and Delinquency." *Youth and Society* 29:84-111.

Agnew, Robert. 2001. "Building on the Foundation of General Strain Theory: Specifying the Types of Strain Most Likely to Lead to Crime and Delinquency." *Journal of Research in Crime and Delinquency.* Vol. 38 No. 4. 319-361.

Anderson, Elijah. 1997. "Violence and the Inner-City Street Code." Chapter 2 in *Violence and Childhood in the Inner City.* Edited by Joan McCord. Cambridge University Press.

Baskin, D. R. and Sommers, I. B. 1998. *Casualties of Community Disorder, Women's Careers in Violent Crime.* Crime and Society Series. Westview Press.

Baskin, D. R. & Sommers, I. B. 1993. "Females' Initiation into Violent Street Crime." *Justice Quarterly* 10:559-583.

Baskin, D. Sommers, I. & Fagan, J. 1993. " The Political Economy of Female Violent Street Crime.*" The Fordham Urban Law Journal* 20:401-417.

Braithwaite, John. 1989. *Crime, Shame and Reintegration.* Cambridge University Press.

Brezina, Timothy. 1996. "Adapting To Strain: An Examination of Delinquent Coping Responses." *Criminology* 34:39-60.

Brezina, Timothy. 1998. "Adolescent Maltreatment and Delinquency: The Question of the Intervening Processes." *Journal of Research in Crime and Delinquency* 35:71-79.

Brezina, Timothy. 2000. "Delinquent Problem-Solving: An Interpretive Framework For Criminological Theory and Research.*" Journal of Research in Crime and Delinquency* 37:3-29.

Brezina, Timothy. 1999. "Teenage Violence Toward Parents as An Adaptation to Family Strain: Evidence from a National Survey of Male Adolescents." *Youth and Society* 30:4:416-444.

Broidy, Lisa and Agnew, Robert. 1997. "Gender and Crime: A General Strain Theory Perspective."

Journal of Research in Crime and Delinquency 34:275-306.

Broidy, Lisa. 2001. A Test of General Strain Theory. *Criminology* 39:9-33.

Brown, Sandra, A. 1993. "Recovery Patterns in Adolescent Substance Abuse." Chapter Seven, in *Addictive Behaviors Across the Life Span, Prevention, Treatment and Policy Issues*. Editors, John S. Baer, G. Alan Marlatt, and Robert J. McMahon. Sage Publications. 1993.

Bruns, C. and Geist, C.S. 1984. "Stressful Life Events and Drug Use Among Adolescents." *Journal of Human Stress* 10:135-139.

Bursik, Robert J., Jr. and Grasmick, Harold. 1993. *Neighborhoods and Crime*. Lexington Books.

Burton, Velmer, S., Jr., Evans, David, T., Kethineni, Shesha, R., Cullen, Francis, T., Dunaway, Gregory, R., and Payne, Gary, L. 1995 "The Impact of Parental Controls on Delinquency." *Journal of Criminal Justice* 23:111-126.

Carlan, P. 1988. *Women, Crime and Poverty*. Milton Keynes: Open University Press.

Cernkovich, Stephen, A.and Giordano, Peggy, C. 1987. "Family Relationships and Delinquency." *Criminology* 25:295-319.

Chesney-Lind, M. 1989. "Girls' Crime and Woman's place: Toward a Feminist Model of Female Delinquency." *Crime and Delinquency* 35:5-30.

Chesney-Lind, M. 1997. *The Female Offender. Girls, Women, and Crime. Women and the Criminal Justice System.* Sage Publications.

Coulton, Claudia, Korbin, Jill, E., Su, Marilyn, Chow, Julian. 1995. "Community Level Factors and Child Maltreatment Rates." *Child Development* 66:1262-1276.

Dembo, Richard, Williams, Linda, Schmeidle, James, Berry, Estrellita, Getreu, Alan, Wish, Eric, D. and Christensen, Candice. 1992. "A Structural Model Examining the Relationship Between Physical Child Abuse, Sexual Victimization, and Marijuana/Hashish Use in

Delinquent Youth: A Longitudinal Study." *Violence and Victims* 7:141-62.

Dembo, Richard, Williams, Linda, Wothke, Werner, Schmeidler, James, and Brown, C., Hendricks. 1992. "The Role of Family Factors, Physical Abuse, and Sexual Victimization Experiences in High-Risk Youths' Alcohol and Other Drug Use and Delinquency: A Longitudinal Model." *Violence and Victims* 7:245-265.

Kruttschnitt, C. and Dornfeld, M. 1991. "Childhood Victimization, Race, and Violent Crime". *Criminal Justice and Behavior* 18:448-462.

Evans, T., David, Cullen, Francis, T., Burton, Velmer, S. 1997. "The Social Consequences of Self- Control: Testing the General Theory of Crime." *Criminology* 35:475-504.

Farrall, Stephen, and Bowling, Benjamin. 1999. "Structuration, Human Development and Desistance from Crime." *British Journal of Criminology* 39:253-268.

Flowers, R. Barri. 2001. *Runaway Kids and Teenage Prostitution. America's Lost, Abandoned, and Sexually Exploited Children.* Praeger.

Gibbs, John, J., Giever, Dennis, Giever, and Martin, Jamie, S. 1998. "Parental Management and Self-Control: An Empirical Test of Gottfredson and Hirschi's General Theory." *Journal of Research in Crime and Delinquency* 25:40-70.

Gottfredson, Michael and Hirschi, Travis. 1990. *A General Theory of Crime*. Stanford, California Stanford University Press.

Grasmick, Harold, G., Tittle, Charles, R., Bursik, Robert, J., Jr., and Arneklev, Bruce, J. 1993. "Testing the Core Empirical Implications of Gottfredson and Hirschi's General Theory of Crime." *Journal of Research in Crime and Delinquency* 30:5-29.

Hagan, John, McCarthy, Bill, Parker, Patricia, and Climenhage, Jo-Ann. 1997 and 1998 (in paperback). *Mean Streets Youth Crime and Homelessness.* Cambridge University Press.

Hay, Carter. 2001. An Exploratory Test of Braithwaite's Reintegrative Shaming Theory. *Journal of Research in Crime and Delinquency* 38:132-153.

Heidensohn, F.M. 1968. "The deviance of women: a critique and an enquiry." *British Journal of Sociology* 19:160-175.

Heimer, Karen, and De Coster, Stacy. 1999. "The Gendering of Violent Delinquency." *Criminology* 37:277-317.

Hoffman, John, P., and Su, Susan, S. 1997. "The Conditional Effects of Stress on Delinquency and Drug Use: A Strain Theory Assessment of Sex Differences." *Journal of Research n Crime and Delinquency* 34:46-78.

Joon Jang, Sung and Krohn, Marvin, D. 1995. "Developmental Patterns of Sex Differences in Delinquency Among African American Adolescents: A Test of the Sex Invariance Hypothesis." *Journal of Quantitative Criminology* 11:195-222.

Katz, Rebecca. 1999. "Building the Foundation for a Side-by-Side Explanatory Model: A General Theory of Crime, the Age-Graded Life Course Theory and Attachment Theory." *Western Criminology Review*, 1:2. http://wcr.sonoma.edu/v1n2/katz.html

Katz, Rebecca. 2000[a]. "Explaining Girls' and Women's Crime and Desistance in the Context of Their Victimization Experiences: A Developmental Test of Revised Strain Theory and the Life Course Perspective." *Violence Against Women* 6:633-660.

Katz, Rebecca, S. 2000[b]. "Explaining Violence, Substance Abuse, and Persistent Violence Among Men: Elaborating a Side-by-Side Integrative Model of Four Theoretical Perspectives." *Sociology of Crime, Law, and Deviance. Volume 2.* Edited by Jeffrey T. Ulmer. JAI, An Imprint of Elsevier Science.

Keane, Carol, Maxim, Paul, S., and Teevan, James, J. 1993. "Drinking and Driving, Self-Control, and Gender: Testing a General Theory of Crime*." Journal of Research in Crime and Delinquency* 30:30-46.

Klein, Dorie. 1973. "The Etiology of female crime: a review of the literature." *Issues in Criminology* 8:3-30.

Krueger, Robert, F., Avashalom, Caspi, Moffitt, Terrie, E., White, Jennifer, and Stouthamer-Loeber, Magda. 1996. "Delay of Gratification,

Psychopathology, and Personality: Is Low Self-Control Specific to Externalizing Problems?" *Journal of Personality* 64:107-129.

LaGrange, Teresa, C., and Silverman, Robert, A. 1999. "Low Self-Control and Opportunity: Testing the General Theory of Crime As An Explanation for Gender Differences in Delinquency." *Criminology* 37:41-72.

Laub, John. H, Nagin, Daniel, S., and Sampson, Robert, J. 1998. "Trajectories of Change in Criminal Offending: Good Marriages and the Desistance Process." *American Sociological Review* 68:225- 238.

Laub, John, H. and Sampson, Robert, J. 1993. "Turning Points in the Life Course: Why Change Matters to the Study of Crime." *Criminology* 31:301-325.

Laub, John, H., and Sampson, Robert, J. 1998. "The Long-Term Reach of Adolescent Competence: Socioeconomic Achievement in the Lives of Disadvantaged Men." Chapter Four in, *Competence and Character Through Life.* Edited by Anne Colby, Jacquelyn James, and Daniel Hart. The University of Chicago Press.

Leiber, Michael, J. Farnworth, M., Jamieson, K.M., and Nalla, M. 1994. "Bridging the Gender Gap in Criminology: Liberation and Gender Specific Strain Effects on Delinquency." *Sociological Inquiry* 64:56-68.

Longshore, Douglas, Turner, Susan, and Stein, Judith A. 1996. "Self-Control in A Criminal Sample: An Examination of Construct Validity." *Criminology* 34:209-228.

Longshore, Douglas. 1998. " Self Control and Criminal Opportunity: A Prospective Test of the General Theory of Crime." *Social Problems* 45:102-113.

Lynam, Donald, Moffitt, Terrie, and Stouthamer-Loeber, Magda. 1993. "Explaining the Relation Between IQ and Delinquency: Class, Race, Motivation, School Failure, or Self-Control?" *Journal of Abnormal Psychology* 102:187-196.

Mazerolle, Paul. 1998. "Gender, General Strain, and Delinquency: An Empirical Examination." *Justice Quarterly* 15:65-91.

Mazerolle, Paul, Piquero, Alex 1997. "Violent Responses to Strain: An Examination of Conditioning Influences." *Violence and Victims* 12:323-343.

Mazerolle, Paul, Burton, Jr., Velmer, S., Cullen, Francis, T., Evans, David, T., and Payne, Gary, L. 2000. "Strain, anger, and delinquent adaptations: Specifying general strain theory." *Journal of Criminal Justice* 28:89-101.

Merton, Robert K. 1938. "Social Structure and Anomie." American Sociological Review 3:672-82.

Nagin, Daniel, S., Farrington, David, P. and Moffitt, Terrie, E. 1995. "Life-Course Trajectories of Different Types of Offenders." *Criminology* 33:111-139.

National Institute of Justice. 1996. *The Cycle of Violence Revisited. Research Preview*. U.S. Department of Justice, Washington D.C.

Neilson, Amie, L. 1999. "Testing Sampson and Laub's Life Course Theory: Age, Race/Ethnicity, and Drunkeness." *Deviant Behavior* 20:129-151.

Nunes-Dinis, Marie, C., and Weisner, Constance. 1997. "Gender Differences in the Relationship of Alcohol and Drug Use to Crime Behavior in a Sample of Arrestees." American Journal of Drug and Alcohol Abuse 23:129-141.

Paternoster, Raymond and Mazerolle, Paul. 1994. "General Strain Theory and Delinquency: A Replication and Extension." *Journal of Research in Crime and Delinquency* 31:235-263.

Pettiway, Leon, E. 1997. *Workin' It Women Living Through Drugs and Crime.* Temple University Press.

Piquero, Alex, R. and Rosay, Andre, B. 1998. "The Reliability and Validity of Grasmick et al.'s Self-Control Scale: A Comment on Longshore et al.*" *Criminology* 36:157-173.

Piquero Leeper, Nicole, and Sealock, Miriam, D. 2000. "Generalizing General Strain Theory: An Examination of An Offending Population." *Justice Quarterly* 17:449-484.

Rosenfield, Richard, and Messner, Steven, F. 2001. "Social Capital and Homicide."*Social Forces* 80:283.

Rowe, David, C., Vazonyi, Alexander, T., and Flannery, Daniel, J. 1995. "Sex Differences in Crime: Do Means and Within Sex Variation Have Similar Causes?" *Journal of Research in Crime and Delinquency* 32: 84-100.

Sampson, Robert, J., and Laub, John, H. 1993. *Crime in the Making Pathways and Turning Points Through Life.* Harvard University Press, Cambridge, Massachusetts.

Simon, Rita, and Landia, Jean. 1991. *The Crimes Women Commit, The Punishments They Receive.* Lexington Books.

Simpson, Sally, and Elis, Lori. 1995. "Doing Gender: Sorting out the caste and crime conundrum." *Criminology* 33:47-81.

Tibbetts, Stephen, G. 1997. "Shame and Rational Choice in Offending Decisions." *Criminal Justice Behavior.* 24: 234-255.

Umbreit, Mark, S. 2001. *The Handbook of Victim-Offender Mediation. An Essential Guide to Practice and Research.* Sponsored by the Center for Restorative Justice and Peacemaking, University of Minnesota, School of Social Work. Jossey-Bass, A Wiley Company.

Weeks, R., and Widom, C.S. 1998. "Self-reports of early childhood victimization among incarcerated adult male felons."*Journal of Interpersonal Violence* 13, 346-361.

Widom, Cathy Spatz, and Ames, Ashley, M. 1994. "Criminal Consequences of Childhood Sexual Victimization." *Child Abuse and Neglect* 18:303-318.

Widom, Cathy Spatz. 1996. "Childhood Sexual Abuse and Its Criminal Consequences." *Society* 33:47-53.

Widom Spatz, Cathy, and White, Raskin, Helen. 1997. "Problem behaviors in abused and neglected children grown up: prevalence and co-occurrence of substance abuse, crime and violence." *Criminal Behaviour and Mental Health* 7:287-310.

Zingraff, Matthew T., Leiter, Jeffrey, Myers, Kristen, A., Johnsen, Matthew, C. 1993. "Child

Maltreatment and Youthful Problem Behavior." *Criminology* 31:173-201.

ABOUT THE AUTHOR
Rebecca S. Katz is an Associate Professor of Sociology, Criminology, and Women's Studies at Morehead State University in Morehead Kentucky. Dr. Katz has approximately ten years of experience as a mental health therapist working with delinquents, substance abusers and adult offenders. She has published research in Crime, Law, and Social Change, Sociological Focus, Violence Against Women, and the Journal of Criminal Justice Education. Her interests include developmental theories of crime, gender, race, and white supremacy and international crimes."

Appendix: *Frequencies, Coding, and Factor and Reliability Analysis of Dependent and Independent Variables*

DEPENDENT VARIABLES

Fighting at School in last year base year
    0=75.9%   1=once to more than twice 22.4%   Missing=1.7%

Fighting at School in last year Wave Two
    0=none 76.9%   1=Once to more than twice 16.4%   Missing=6.9%

Fighting to or from school in last school year Wave Three
0=none 79.8%   1=one to two fights 4.3%   2=two or more fights 1.4%   Missing=14.5%

Shame At wave 1

Question Items	Code/ Percent	Factor Loading
I certainly feel useless at times.	4=Strongly Agree 7.8 % 3=Agree 38.3% 2=Disagree 32.5 % 1=Strongly Disagree 12.3% Missing 9.1%	**.790**
At times I think I am no good at all.	4=Strongly Agree 7.2% 3=Agree 30% 2=Disagree 32.3% 1=Strongly Disagree 21.6% Missing 8.9%	**.819**
I feel I do not have much to be proud of.	4=Strongly Agree 3.3% 3=Agree 9.3% 2=Disagree 38.3% 1=Strongly Disagree 40.3% Missing 8.7%	**.674**
My plans hardly ever work out, so planning really makes me unhappy.	4=Strongly Agree 4.8% 3=Agree 13% 2=Disagree 48.3% 1=Strongly Disagree 25.3% Missing 8.5%	**.661**

Scale Alpha =.722

Shame at Wave Three

Question Items	Code/ Percent	Factor Loading
I certainly feel useless at times.	4=Strongly Agree 3.7% 3=Agree 30.5% 2=Disagree 31.9% 1=Strongly Disagree 11.6% Missing=22.3%	.821
At times I think I am no good at all.	4=Strongly Agree 3.5% 3=Agree 21.6% 2=Disagree 33.5% 1=Strongly Disagree 18.8% Missing 22.7%	.855
I feel I do not have much to be proud of.	4=Strongly Agree 2.7% 3=Agree 8.3% 2=Disagree 39.2% 1=Strongly Disagree 27.2% Missing 22.6%	.724
My plans hardly ever work out, so planning really makes me unhappy.	4=Strongly Agree 2.9% 3=Agree 11.8% 2=Disagree 45.9% 1=Strongly Disagree 16.9% Missing 22.6%	.721

Scale Alpha=.785

Marijuana Abuse Wave Two

Question Items	Code/ Percent	Factor Loading
Number of times used over the last year	0=0 65.7% 1=one to two times 5.3% 2=three to nineteen times 3.4% 3=More than 20 times 1.7% Missing 24%	.943
Number of times used over the last month	0=none 70.6% 1=1 to 2 times 3.2% 2=3 to 19 times 1.7% 3=More than 20 times .6% Missing 24%	.943

Scale Alpha=.839

Marijuana Abuse Wave Three

Question Items	Code/ Percent	Factor Loading
Number of time have you used pot in last month	None=64% 1=1 to 2 times 3.8% 2=3 to 19 times 2.1% 3=20 or more times 1.0 Missing=29.1%	.910
Number of times under the influence of marijuana on school grounds since beginning of year	0=none 69.3% 1=1 to 2 times 2.7% 2=3-29 times 1.4% 3=20 or more times .8% Missing=25.8%	.910

Scale Alpha =.785

Alcohol Abuse Wave Two

Question Items	Code/ Percent	Factor Loading
Number of times drank more than 5 drinks in a row	0=none 64.5% 1=one 8.2% 2=two 5.3% 3=three 3.5% 4=four 1.1% 5-five 1.4% Missing=6.6%	**.908**
Number of times drank over the last 30 days	0=none 45.4% 1=1 20.2% 2=2 9.9% 3=3 1.1% Missing 14%	**.908**

Scale Alpha=.762

Alcohol Abuse Wave Three

Question Items	Code/ Percent	Factor Loading
Number of occasions in last school year at school under the influence	0=None 69% 1=1 to 2 times 6.6% 2=3 to 19 times 2.2% 3=20 or more times .8% Missing 21.4%	**.802**
Number of times had five or more drinks in a row in the last two weeks	0=Never 57.3% 1=once 8.5% 2=twice 5.5% 3=3 to 5 times 4.7% 4=6 to 9 times 1.6% 5=10 or more times 1.7%	**.840**
Number of times drank alcohol throughout the year	0=None 17.6% 1=1 to 2 times 19.2% 2=3 to 19 t imes 24.7% 3=20 or more times 14.1% Missing 24.4%	**.697**

Scale Alpha=.655

Cocaine Abuse Wave Two

Question Items	Code/ Percent	Factor Loading
How many times used cocaine in the last 30 days	0=none 70.3% 1=1 to 2 times .3% 2=3 to 19 times .2% 3=20 or more times .2% Missing=29.1%	**.901**
How many times used cocaine in the last year	0=None 74.3% 1=one to 20 or more times 1.6% Missing 24.1%	**.901**

Scale Alpha=.734

Cocaine Abuse Wave Three

Question Items	Code/ Percent	Factor Loading
How many occasions were you under the influence of cocaine on school grounds	0=None 73.3% 1=1 to 2 times .4% 2=3 to 19 times .1% 3=More than 20 times .2% Missing 26%	**.929**
How many times used cocaine in the last 30 days	0=None 70.3% 1=1 to 2 times .3% 2=3 to 19 times .2% 3=20 or more times .2% Missing 29.1%	**.929**

Alpha=.842

INDEPENDENT VARIABLES

Runaway in the last two years wave two
    0=No 75.8%   1=Yes 4.1%   Missing=20.2%

Runaway in the last two years wave three
    0=No 72 %   1=Yes 4.0%   Missing 24%

Arrested in Wave Two: How many times arrested in the last semester of current school year?
    0=86.9%   1=2.5%   2=.2%   3=.1%   4=.1%   Missing=9.4%

Arrested Wave Three: How many times arrested in the first semester of the current school year?
    0=82.5%   1=2.3%   2=.3%   3=.1%   4=0%   5=.1%   Missing=14.6

Detention Center Wave Three: How many times held in detention center wave three?
    0=84%   1=.7%   2=.1%   3=.1%   4=.0%   5=.1%   Missing=14.6%

Parental Supervision Base Year: Parents limit the amount of time youth spends with friends.
    0=never 10.1%   1=rarely 14.7%   2=sometimes 28.3%   3=often 38.6%   Missing=8.2%

Emotional Problems: Parents believe that their child has emotional problems base year.
    0=no 84.5%   1=yes 2.3%   Missing=13.2%

Youth/Parent Attachment: My parents trust me to do what they expect without checking up on me.
    0=False 19.6%   1=True 72.6% of youth said this was true.   Missing=8.3%

Degree of Urbanity
    1=Rural 29%   2=Suburban 39.7% percent   3=Urban 23.9 percent   Missing=7.3%

High Self Esteem Wave One

Question Items	Code/ Percent	Factor Loading
Feel good about self	4=Strongly Agree 32.6% 3=Agree 52.5% 2=Disagree 0% 1=Strongly Disagree 6.8% Missing=8.2%	**.763**
Feel that I am a person of worth equal to that of other people	4=Strongly Agree 36.8% 3=Agree 46.8% 2=Disagree 5.9% 1=Strongly Disagree 1.3% Missing 9.2%	**.738**
I am able to do things as well as most other people	4=Strongly Agree 35.9% 3=Agree 48% 2=Disagree 6.3% 1=Strongly Disagree .9% Missing 8.9%	**.684**
On the whole I am satisfied with myself	4=Strongly Agree 30.9% 3=Agree 49.3% 2=Disagree 9.2% 1=Strongly Disagree 1.6% Missing 8.9%	**.782**

Alpha Scale=.728

Low Self-Esteem Wave Three

Question Items	Code/ Percent	Factor Loading
Feels good about self	4=Strongly Disagree .9% 3=Disagree 4.4% 2=Agree 40.8% 1=Strongly Agree 32.1% Missing 21.7%	**.797**
Feels he or she is a person of worth	4=Strongly Disagree 1.1% 3=Disagree 3.9% 2=Agree 40.3% 1=Strongly Agree 32.21% Missing 22.5%	**.823**
Is able to do things as well as others	4=Strongly Disagree .9% 3=Disagree 4.4% 2=Agree 40.8% 1=Strongly Agree 32.1% Missing 21.7%	**.794**
On whole I am satisfied with self	4=Strongly Disagree 1.3% 3=Disagree 7.6% 2=Agree 42.5% 1=Strongly Agree 26.2% Missing 22.4%	**.797**

Alpha Scale=.815

SOCIAL CAPITAL VARIABLES OR REINTEGRATIVE SHAMING VARIABLES

Attended drop prevention program Wave Two
    1=yes 1.7%   0=no 86.0   Missing=12.3%

Court ordered to do volunteer work Wave Three
    0=no 35.6%   1=yes 1.3%   Missing 63.1%

Hours worked base year besides home chores
    0=None 29.1%   1=up to four hours 31.89%   2=five to ten hours 18.3%   3=11 to 20 hours 6.9%
    4=21 or more hours 5.1%   Missing=8.8%

Hours worked Wave Two
    0=0 to 10 hours 30.4%   1=11 to 20 hours 31.6%   2=21 to 30 hours 19.7%
    3=31 to 40 hours 12.6%   4=over 40 hours 5.7%

Hours worked Wave Three
    0=not working 14.5%   1=1 to 5 hours 5.3%   2=6 to 10 hours 7.6%   3=11 to 15 hours 9.9%
    4=16 to 20 hours 12.9%   5=21 to 25 hours 7.9%   6=31-35 hours 4.5%   7=36 to 40 hours 2.2%
    8=over 40 hours 1.4%   Missing=12.3%

CONTROL VARIABLES

Family Income Base Year
    0=None .4%   1=9,999 or less 9.9%   2=10K-24,999 22.5%   3=25K=74,999 43.8%   4=Over 75K 7%
    Missing=16.5%

Racial Demographics   8% Missing
        Black compared to all others   9.8%
        Hispanic compared to all others   12%
        White compared to all others   62%
        Native American compared to all others   1%
        Asian Americans compared to all others   6%

Gender
    1=Female=47.6%   0=Male=45.1%   Missing=7.3%