EXPLORING GENDER DIFFERENCES IN DEVELOPMENTAL AND LIFE-COURSE CRIMINOLOGY: AN EXAMINATION OF THE RELATIONSHIP BETWEEN STIGMATIZATION AND SOCIAL BONDS IN THE DESISTANCE PROCESS

By

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ABSTRACT

EXPLORING GENDER DIFFERENCES IN DEVELOPMENTAL AND LIFE-COURSE CRIMINOLOGY:
AN EXAMINATION OF THE RELATIONSHIP BETWEEN STIGMATIZATION AND SOCIAL BONDS IN THE DESISTANCE PROCESS

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Developmental and Life-Course (DLC) criminology is one of the leading theoretical paradigms for understanding why people stop committing crime. One of the more prominent theories within DLC, Sampson and Laub's (1993) age graded theory of informal social control, states that the formation of quality social bonds leads prior offenders towards desistance. Using this theoretical framework, the current study aims to explain inconsistencies in prior research on the relationship between social bonds and desistance, specifically the inconsistencies found between men and women. Taking into account the theory posited by Li and MacKenzie (2003) that the desistance process may be different for men and women due to increased stigmatization placed on female offenders, a new casual model is created which examines the relationships between adolescent delinquency, stigmatization, the development of high quality social bonds, and desistance. Using data from the National Youth Survey, results show that the desistance process varies for men and women, as well as for offenders split into low rate, mid rate, and high rate offender groups. Additionally, this study finds that the measurement of delinquency used in the analysis (frequency and severity) yields different results, adding another possible explanation for inconsistencies in prior research.

DEDICATION

To my mom and dad, Heidie and Ray Youstin, who worked jobs they hated their whole lives to give me the chance to find a job that I love.

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CHAPTER 1. INTRODUCTION

Developmental and Life Course Criminology (DLC) has emerged over the last two decades as one of the leading theoretical perspectives for explaining criminality. While most theories try to explain between-individual differences in offending, DLC is interested in within-individual differences and focuses on three main issues: the development of antisocial behavior and offending, risk and protective factors at different ages, and the effects of life events on the course of development (Farrington, 2005; 1). The general tendency in DLC has been for greater specificity, manifested in efforts to subdivide offender populations and characteristics of the criminal career (Sampson and Laub, 2005; 165). However, despite the growing body of research focusing on DLC issues, the role of gender in DLC explanations of criminal behavior has been largely overlooked.

The present study examines potential gender differences within the context of Sampson and Laub's (1993) age graded theory of informal social control in an effort to extend theory and explore conflicting research in this area. It has been suggested (Li and MacKenzie, 2003) that inconsistent relationships found between gender, social bonds, and desistance may be due to increased stigma placed on female offenders, which hinders the formation of quality social bonds. The current study is the first to test that hypothesis within developmental and life course criminology and does so in the following ways: First, this study focuses on the relationship between gender and social bonds, such as romantic relationships and employment to determine if there are significant differences between males and females on the establishment of such bonds. Second, this study examines the impact of these social bonds (identified by Sampson and Laub (ibid) to be

turning points in the life course) on desistance from crime, as prior research has been mixed as to the importance of these specific social bonds on female desistance. Third, this study examines stigmatization of male and female offenders, and how that stigma may play a role in the desistance process as a moderating effect between delinquency and the formation of social bonds. Next, this study determines if men and women are equally likely to desist from crime when matched by their prior involvement in criminal behavior. If criminal involvement does have differential effects on the formation of social bonds for men and women due to increased stigmatization place on female offenders, it is likely that this will impact rates of desistance as well. To match males and females on offending behavior, participants are divided into three categories based on the distribution of female delinquency: low rate offenders, mid rate offenders, and high rate offenders. The analyses for this study will be conducted using two different measures of delinquency (frequency and severity) in order to account for any potential influence caused by the selected measurement of criminal behavior, adding a fifth, and final element to the research.

While women have been largely overlooked in criminological theory due to their under representation in offender populations, females now make up 17 percent of all offenders under some form of criminal sanction (Bloom, Owen, and Covington, 2005), and their behavior can have serious long term societal consequences (Pajer, 1998). This study takes an important step for DLC by exploring the female offender experience over the life course and will aide in the continued pursuit of strategies to prevent offending and/or promote successful desistance from crime.

CHAPTER 2. DEVELOPMENTAL AND LIFE-COURSE CRIMINOLOGY: AN OVERVIEW

Developmental and Life-Course Criminology (DLC) is a combination of four paradigms that became prominent in the 1980s and 1990s. These paradigms include the criminal career paradigm, the risk factor paradigm, developmental criminology, and life course criminology (Farrington, 2005; 3). The criminal career paradigm established by Blumstein and colleagues in the 1980s explains criminal careers as "the characterization of the longitudinal sequence of crimes committed by an individual offender" (Blumstein, Cohen, Roth, and Visher, 1986; 12). Criminal career research has focused on onset, persistence, escalation, and desistance of individual criminal behavior and recognizes that offenders begin to engage in criminal activity at some age, participate in crime at some individual crime rate, commit a mixture of crimes, and eventually stop participating in criminal activity (Piquero, Farrington, and Blumstein, 2007).

The risk factor paradigm focuses on identifying the key risk factors for offending and implementing prevention methods designed to counteract those risk factors (Farrington, 2000). The ideas behind the risk factor paradigm were brought over from medical and public health realms where it is common to identify characteristics that might put an individual at a higher risk of developing a condition and try to intervene before the condition develops. For example, recognizing the association between smoking and lung cancer, individuals can be encouraged to stop smoking to prevent later development of lung cancer. In the same way, risk factors can be identified that put individuals at a higher risk of becoming delinquent at some point during their life, and once identified, strategies can be developed to counteract the heightened risk stemming

from those risk factors. Although the risk factor paradigm is focused on prevention, it can also be used to guide treatment after offending (Farrington, 2000).

Developmental criminology overlaps the risk factor paradigm as it is also focused on risk factors, as well as the development of offending. Developmental criminology recognizes that deviant behavior in the course of individuals' lives may change, while the underlying propensity for deviance may remain stable (Le Blanc and Loeber, 1998). There are two areas of study for developmental criminology: the study of the development and dynamics of offending with age, and the identification of causal factors that affect the course of behavioral development (Loeber and Le Blanc, 1990).

Finally, life-course criminology is focused on the effects of life events and life transitions on offending, as well as development and risk factors (Farrington, 2005; 3). The life course is "the interweave of age-graded trajectories, such as work careers and family pathways, that are subject to changing conditions and future options, and to short-term transitions ranging from leaving school to retirement" (Elder, 1994; 4-5). The analysis of life-course dynamics involves two concepts: the concept of trajectories, including entrance, success, and timing, and the concept of transitions, or life events that are embedded within a trajectory that are more or less abrupt (Piquero and Mazerolle, 2001; ix-x). The integration of trajectories and transitions may lead to turning points, or the significant change in one's trajectory (Elder, 1985).

As all four paradigms are concerned with the same interlinked set of issues, they have been incorporated under the heading "developmental and life-course criminology" (Farrington, 2005; 3). In conjunction with the growing availability of longitudinal studies, the DLC paradigms became more important in the 1990s and have lead to some

significant advances in understanding the dynamics, as well as partial stability, of criminality. Research using longitudinal data within the DLC framework has lead to several conclusions about the development of offending. The prevalence of offending has been shown to peak between 15-19, with average age of onset between 8-14 and average age of desistance between 20-29 (Farrington, 1986; Farrington, 1992; Wolfgang, Thornberry, and Figlio, 1987). Early age of onset has been shown to predict a long criminal career duration (Farrington, Lambert, and West, 1998), and early age of onset is a characteristic of "chronic" offenders, that is, a small fraction of offenders who commit a large fraction of all crimes (Wolfgang, Figlio, and Sellin, 1972). Research has also shown continuity in offending and antisocial behavior throughout childhood, the teenage years, and adulthood (Tracy and Kempf-Leonard, 1996), and that offending is generally versatile, rather than specific (Piquero, 2000b). Farrington and Loeber (1999) found nine shared risk factors for delinquency between American and European youth. Those risk factors are hyperactivity, poor concentration, low achievement, an antisocial father, large family size, low family income, a broken family, poor parental supervision, and parental disharmony. Additionally, main life events that encourage desistance after age 20 are getting married, getting a satisfying job, moving to a better area, and joining the military (Horney, Osgood, and Marshall, 1995; Laub and Sampson, 2001).

Several theories have been offered to explain the key empirical and theoretical DLC issues. Farrington (2003) offers a theory for integrated cognitive antisocial potential (ICAP), which incorporates ideas from other theories including strain, control, learning, labeling, and rational choice approaches. Farrington posits that there can be long-term, between individual differences in antisocial potential, as well as short-term,

within individual differences in antisocial potential. The main concepts in Farrington's ICAP theory are antisocial potential, which is a person's propensity to engage in crime, and cognition, which is the decision making process which turns potential into an actual process. According to the ICAP theory, the commission of offenses and other types of antisocial behavior is dependent on the interaction between the social environment and the individual, taking into account the individual's immediate level of antisocial potential (Farrington, 2003). The cognitive process determines whether or not a person with a certain level of antisocial potential will commit a crime in a given situation, and includes considering the costs and benefits of various outcomes. The consequences of offending may, however, lead to changes in long-term antisocial potential.

Catalano and Hawkins' (1996) social development model (SDM) attributes participation in deviant behavior over the life course to the balance between antisocial and prosocial bonding. SDM integrates social control/bonding, social learning and differential association theories and identifies two causal pathways which lead to either prosocial bonding or antisocial bonding. Opportunities for prosocial interaction on the prosocial pathway lead to prosocial behavior, which is rewarded and leads to prosocial bonding. The same process occurs on the antisocial pathway leading to antisocial bonding (Farrington, 2003). Catalano and Hawkins argue that individuals learn prosocial and antisocial behavior through socialization with family, peers, school, and communities, though demographic and biological factors may influence opportunities and skills for the socialization process. The likelihood of offending depends upon the balance of antisocial and prosocial bonds, in combination with the perception of the costs and benefits associated with the offending behavior.

Moffitt's (1993) developmental theory presents a dual taxonomy to explain why antisocial behavior dramatically increases temporarily during adolescence despite the fact that antisocial behavior shows strong continuity over age. Moffitt suggests there are two types of individuals, those with life-course persistent antisocial behavior, and those with adolescence limited antisocial behavior. Moffitt argues that life-course persistent offenders are marked by neuropsychological deficits in childhood. These deficits lead to problem behavior in childhood, which prevents the individual from learning prosocial behavior due to negative reactions from adults and peers. The antisocial tendencies exhibited early in life by life-course persistent offenders become amplified by family and social contexts and can lead to the formation of an antisocial personality. Life-course persistent offenders are at risk for early onset of deviant behavior, as well as serious and chronic offending (Piquero and Mazerolle, 2001; 88). On the other hand, adolescence limited offenders participate in antisocial behavior due to a frustrating maturity gap caused by achieving biological maturity before social adult status. Adolescent limited offenders mimic the antisocial behavior of life-course persistent offenders until they enter into legitimate adult roles, in which case, offending stops because adolescent limited offenders can now achieve their desires legitimately (Farrington, 2003). Desistence comes easily for adolescent limited offenders because they do not have neuropsychological deficits or antisocial personalities.

Sampson and Laub's (1993) age graded theory of informal social control is one of the more prominent life-course theories. Sampson and Laub's age graded theory maintains three key ideas: 1) that childhood and adolescent delinquency can be explained by structural context, mediated by informal family and school social controls; 2) there is

continuity in antisocial behavior from childhood through adulthood in various life domains; and 3) despite earlier childhood propensities, informal social bonds in adulthood to family and employment explain changes in criminality over the life span (Sampson and Laub, 1993; 7). The authors "posit that life-event transitions and adult social bonds can modify quite different childhood trajectories" (Sampson and Laub, 1993; 24), indicating that adult factors explain variations in adult behavior independent of childhood background. However, Sampson and Laub do acknowledge that the strength of bonding is dependent upon attachment to parents, schools, delinquent friends and siblings, as well as parental socialization. Additionally, structural background variables and individual differences indirectly affect offending due to their effect on informal social control (Farrington, 2003).

CHAPTER 3. GENDER IN DEVELOPMENTAL AND LIFE-COURSE CRIMINOLOGY

While numerous studies have provided empirical support for the various DLC theories, most research has been conducted using male only samples. Due to the paucity of information on the criminal careers of women, little is known about how careers begin, continue, and end across gender (Piquero, Farrington, and Blumstein, 2007). Of the limited research that has been conducted, similarities and differences have been uncovered for male and female offending. Looking specifically at antisocial behavior, Moffitt, Caspi, Rutter and Silva (2001) examined sex differences using the Dunedin Longitudinal Study, which followed 1,000 males and females from age 3 to 21. They found that males were more likely to have lifetime antisocial behavior, exhibit more physical aggression and violent behavior, and have higher rates of the most important risk factors for antisocial behavior than women. Additionally, the study found that almost all females who engage in antisocial behavior best fit the "adolescence-limited" typology outlined by Moffitt's (1993) theory. Despite these differences, though, remarkable similarities in offending-related behavior were also found in the Dunedin Longitudinal Study. Males and females were found to be most alike in antisocial behavior in mid adolescence (around age 15), with similar ages of onset and similar adult consequences for antisocial behavior.

Research on other DLC dimensions has also found similarities between male and female deviant behavior. An analysis of the age-crime curve shows a near identical pattern for both males and females, with increased age accompanied by sharp reductions in offending for both genders (Cline, 1980; Gove, 1985). Looking at offense

specialization using the second Philadelphia Birth Cohort, research has shown no significant differences between males and females, with both genders likely to commit a wide variety of offenses (Mazerolle et al., 2000). Piquero and Chung (2001) examined the relationship between gender, age of onset, and serious offending. The authors found that the mean age of onset and proportion of offenders categorized as early and late onset did not vary across gender. Additionally, the analysis showed that early onset predicted serious offending for both groups, though the relationship disappeared for women when controlling for relevant factors.

Farrington and Painter (2004) looked at risk factors for offending between brothers and sisters in the Cambridge Study in Delinquent Development. The authors found that the most important risk factors were similar among boys and girls: low family income, large family size, attending a high delinquency rate school, convicted parents, delinquent siblings, parental conflict, separation from a parent, harsh or erratic parental discipline, and poor parental supervision (Farrington and Painter, 2004: 4). Despite the similarities, however, there were also differences found when looking at risk factors for delinquency across gender. Socio-economic risk factors were stronger predictors of delinquency for females than males, as were child-rearing risk factors, such as low praise from parents, poor supervision, parental conflict, harsh/erratic discipline, low parental interest in education, and low parental interest in the children. Farrington and Painter suggest that gender specific theories may be needed to explain risk factors for delinquency (Farrington and Painter, 2004: 5).

Examining chronic offending, Piquero (2000a) found a small group of chronic offenders were responsible for most offenses for both men and women, with early onset

characteristic of chronic offenders across gender. While DLC research has shown the existence of a chronic offender group (Blumstein et al., 1986; Piquero, 200a; Wolfgang et al., 1972), it is unclear as to how many offender groups there are. While Moffitt (1993) identifies two offender groups in her theory, research has been inconsistent in verifying her hypothesis. The number of offender groups has also shown to vary across gender, with some research reporting equal groups for men and women (Broidy et al., 2003; Fergusson and Horwood, 2002), and others reporting different classes of offenders across gender (Broidy et al., 2003; D'Unger et al., 2002; Piquero, Brame, and Moffitt, 2005).

Research into desistance from crime has also been mixed when trying to determine if there are gender differences in the desistance process. Uggen and Kruttschnitt (1998) found little evidence that factors influencing desistence operated differently for men and women. However, as their findings showed that women were more likely to transition out of crime and remain crime free for longer periods of time, the authors concluded that the factors influencing official desistance are not gender neutral, though no explanations were offered as to why this was the case. Broidy and Cauffman (2006) also found that social bonds such as marriage, children, and employment were significantly related to desistance using data from the Glueck and Glueck Women's Reformatory Study. In particular, the authors found that the quality of the social bonds was of importance when establishing significant relationships. Contrary to Sampson and Laub (1993), who theorized and supported with empirical evidence that job stability and marital attachment in adulthood were significantly related to changes in adult crime, Giordano, Cernkovich, and Rudolph (2002) found that neither marital attachment nor job stability were related to male or female desistance in their sample of

males and females who had at one time been incarcerated. Though marital attachment and job stability were not related to desistance, the authors did find similarities and differences across gender in other processes that were related to desistance.

Alarid, Burton, and Cullen (2000) found that social bonds such as attachments to family, partner and friends, involvement in conventional activities, and law abiding beliefs had a greater effect on criminal behavior for women than for men. However, the relationship between marriage or living with a partner was in the opposite direction that would be expected according to Sampson and Laub (1993) for women, as the results showed living with a man was associated with increases in drug and property offenses. Benda (2005), studying male and female graduates from boot camp, found that while job satisfaction and education lengthened time in the community more for males than females upon release, number of children and relationships were more important predictors of successful desistance for women. Li and MacKenzie (2003), in examining a sample of 125 probationers, found that while social bonds acted as strong inhibitors of crime for male offenders, social bonds facilitated crimes for female offenders, offering support that social bonds have different effects on desistance for men and women.

Recognizing that quality of social bonds should influence their effectiveness at drawing individuals away from crime, as theorized by Sampson and Laub, Simons and colleagues (2002) explored how quality of bonds may influence the effect of romantic relationships and job stability on desistance. The authors found that deviant behavior at age 14 predicted quality of romantic relationship at age 20 for women, but not for men. Additionally, relationship quality affected criminal behavior for women but not for men. There was no significant effect of delinquency at age 14 on job attachment at age 20 for

men or women. Finally, taking into account the propensity to marry on the relationship between marriage and desistance, King, Massoglia, and MacMillan (2007) found that while marriage did have beneficial effects for some groups of men, there was no relationship between marriage and desistance for women. The authors argued that while males with a low propensity to marry are still likely to marry a less antisocial female partner, the same is not true for women. It is likely that females with a low propensity for marriage will marry an equally deviant or more deviant male partner, potentially leading to deviance amplification for the female partner.

Prior studies examining the various dimensions of DLC have revealed similarities and differences for male and female in issues relating to offending, and are difficult to interpret. Two areas that have shown the greatest discrepancy between men and women, as well as between studies, are trajectories and transitions; specifically, how many offender groups there are for men and women, and how social bonds relate to transitions for offenders and eventual desistance from crime. Broidy and Cauffman (2006) suggest that part of the variation is likely due to differences in sampling and methodological designs, and that caution should be used when applying what is known about male desistance patterns to female offenders. Indeed, studies looking at trajectories and transitions/desistance have been inconsistent in measuring variables of interest and have utilized a wide variety of samples. Studies using measures of offending that decreased variation, such as official arrests and police contacts (D'Unger et al., 2002; Piquero et al., 2005) resulted in finding fewer latent classes of female offenders than male offenders. In contrast, studies using self reported measures of delinquency have generally found equivalent classes for male and female offenders, though the total number of classes

overall has varied from sample to sample (Broidy et al, 2003; Fergusson and Horwood, 2002). In examining the effects of social bonds on transitions and desistance from crime, studies have shown a wide array of relationships, from social bonds such as marriage and employment affecting male and female desistance in the same way (Uggen and Kruttschnitt, 1998), to social bonds having no effect on desistance for men or women (Giordano et al., 2002), to social bonds differentially affecting men and women (Alarid et al., 2000; Benda, 2005; King et al., 2007; Li and MacKenzie, 2003; Simons et al, 2002).

Several explanations can be provided for the variety of findings resulting from research in the area of social bonds, desistance, and gender. First, as Giordano and colleagues (2002) had the only study to find no effect of social bonds on desistance from crime, regardless of the offender's gender, it is possible that the design of the study provided little statistical power for finding significant differences. Their study was limited to a follow up of 192 serious adolescent offenders, few of whom were actually married and had full time employment at the time of the follow up, and even fewer had high quality partners, though the authors attribute the discrepancy between their findings and that of Sampson and Laub (1993) to greater heterogeneity in their sample and historical context differences. It is unlikely, however, that heterogeneity and historical context are the reasons for the discrepancies, as other studies using current, heterogeneous samples have also found positive effects of social bonds on desistance. The majority of studies that have examined the effect of social bonds on men and women have found differences in their effects. Li and MacKenzie (2003) suggest that because female offenders carry more stigma than male offenders, even if involved in similar offenses, female offenders may have greater difficulties finding suitable mates. As King

and colleagues (2007) suggest that women are naturally less likely to find mates that are more prosocial than they are, participation in criminal behavior may exacerbate the limitations women already have to create social bonds that will aide in desistance from crime. The stigma faced by deviant women may naturally affect women in a more profound way than would be experienced by men, as women have been shown to be more socially oriented than men (Benda, 2005). As such, engaging in even minor offending may stigmatize females in a way that leaves few options other than continuing to be involved in crime (Li and MacKenzie, 2003). The differential effects of criminal behavior for men and women may affect the ability of delinquent women to achieve quality social bonds. Sampson and Laub (1990) have theorized that the quality of the social bond formed over time is what influences the desistance process, as opposed to the mere presence of a bond. As a result, some discrepancies found in the literature that show marital effects for men but not for women may, in part, be due to the neglect of the quality of social bonds by most researchers. It is possible that adolescent delinquency in women may stigmatize women in a way that limits the formation of quality social bonds, thereby facilitating the continuation of delinquent behavior due to the deficit of traditional transitions out of crime.

As there have been a limited number of studies comparing men and women, it is still unclear as to whether the same theories can explain the offending process for men and women (Benda, 2005). Despite the belief that women would outgrow their deviance, leading to their exclusion from life-course considerations (Piquero and Chung, 2001), female adolescent antisocial behavior has significant long term societal and individual consequences (Pajer, 1998) and needs to be understood more clearly. Piquero and

colleagues (2005) state the importance of understanding gender differences and similarities, as police, courts, and the correctional system treat women differently based on their beliefs regarding female offending over the life course. Between 1990 and 1999, the rate of female offenders convicted of felonies increased at a rate more than two times that of male offenders (Greenfeld and Snell, 1999). As policies are enacted to prevent offending and promote desistance, it is important to understand if the desistance process works the same for all offenders. If not, there are countless implications for future policies.

CHAPTER 4. SOCIALIZATION AND STIGMA: POTENTIAL GENDER DIFFERENCES

When empirically examining whether or not delinquent behavior may have different consequences for men and women, it is important to initially understand why gender differences may be expected. It is clear through research on the socialization of men and women that children are encouraged to adopt personality traits that are masculine or feminine, in accordance with their sex (Dietz, 1998). While certain traits can be seen as androgynous (neither male oriented or female oriented), there are a variety of traits that are categorized as either masculine or feminine. For example, traits such as aggressiveness, being independent, acting as a leader, being athletic or competitive, being dominant, and being self-reliant are identified as masculine traits according to several personality indexes, including the Bem Sex-Role Inventory (Bem, 1974), whereas feminine traits include being yielding, soft-spoken, gentle, gullible, loyal, compassionate, and childlike, to name a few. Though it can be argued that ideas of masculinity and femininity may be changing in society, these traditional orientations are still dominant according more current research (Auster and Ohm, 2000). In addition to encouraging appropriate sex traits when socializing individuals, appropriate gender norms are also taught and reinforced. Parents interact differently with daughters and sons from the moment they are born; dressing them differently, decorating their rooms differently, and giving them different toys to play with (Eitzen, Baca-Zinn, and Eitzen-Smith, 2010). Schools work to funnel boys and girls towards appropriate gender behavior, encouraging mechanics, woodworking, and other vocationally organized skills for boys while encouraging skills such as cooking and child rearing in girls. Though gender roles changed somewhat throughout the 20th century, most remarkably by the increased level

of female participation in the workforce, jobs today continue to be segregated by sex, with pink collar jobs referring to jobs commonly held by women, such as clerical workers, retail sales, waitresses, nurses, and non-college teachers (ibid.). These pink collar jobs reinforce acceptable female characteristics, such as being helpful, attending to the needs of others, and being passive.

When individuals engage in behavior that is perceived to violate gender norms, others may react by labeling that individual as deviant. The deviant label can then lead to stigmatization of the individual (Blinde and Taub, 1992). Schur (1983: 53) identifies five major categories of norms that can result in female deviance labels if violated. The categories are (1) presentation of the self, (2) marriage and maternity, (3) sexuality, (4) occupational choice, and (5) "deviance norms". Schur states that according to the presentation of the self norms, women are supposed to be beautiful, emotionally warm and supportive, and polite and passive in speech. For marriage and maternity norms, women are expected to marry in order to be a "normal" adult woman, and expected to want children and have them within the confines of marriage. In reference to sexuality norms, women are expected to be reserved in their sexual behavior. Occupational norms, according to Schur, are rooted in the occupational segregation by sex. While it may not be deviant for a woman to have a job, occupation deviance arises if a woman has the wrong type of job (i.e. a job identified as a "male job," such being a pilot versus a stewardess). Finally, the category of deviance norms identifies deviance that is appropriate and inappropriate for women. Schur argues that women who engage in deviance that is seen as "male" deviance, such as armed robbery, may be more prone to

labeling than women who engage in more acceptable "female" deviance, that does not violate gender norms, such as shoplifting.

Prior research has supported Schur's claim that violations in these categories can lead to labeling. Blinde and Taub (1992) found that female college athletes were commonly labeled as lesbians, regardless of their actual sexual orientation. Additionally, this labeling of female athletes typically has negative social and psychological outcomes because of the lack of power female athletes have to challenge the deviant label. Park (2002) found that women, and men, who were voluntarily childless experienced stigma and had to use a variety of management strategies in order to preserve a good sense of self worth. In a study examining the decision to remain single, Waehler (1997) commented that individuals are often suspicious as to why women remain single (a suspicion not as common for single men) and feel as though a woman who cannot get a man must be a "loser" (p. 8). When studying stigmatization regarding sexual orientation, Herek and Capitanino (1996) found that gay men and women both face stigmatization, though attitudes towards gay men may be more negative than attitudes towards gay women. This category of sexuality, particularly sexual orientation, may be the only category identified by Schur results in greater stigmatization for men than women.

Numerous studies have examined the experiences females in male-oriented professions and have found that women are often subject to discrimination and blocked opportunities for advancement (referred to as a glass ceiling). Males in female-oriented professions, on the other hand, may be subject to discrimination outside of the profession, but internally are more likely to be considered for hiring and promotions than similarly qualified women (referred to as the glass escalator) (Williams, 1992). These results

indicate greater negative consequences for females in male-oriented jobs than males in female-oriented jobs.

Finally, and perhaps most relevant to the current research, when examining actual delinquency, Schur argues that crime in general may be seen as a male activity, but that certain crimes which are more passive or submissive, such as shoplifting, may be less prone to labeling and stigma because they are thought of as being appropriately female. Criminological research examining the effects of gender on arrests and sentencing has been mixed when trying to determine if females who commit crimes that violate gender norms are treated more harshly within the criminal justice system (Spohn, 1999). Unfortunately, there is also a paucity of research examining differences in unofficial stigmatization (such as that from friends or family) on female offenders separated by crime type. That being said, the limited research that has been conducted has supported the proposition that females may be more stigmatized from delinquent behavior than males. Research conducted by Maidment (2002) found that females being electronically monitored reported less help and support from family members than males also undergoing electronic monitoring, a potential indication of increased unofficial stigma for female offenders. Additionally, Zhang (1997) also found that delinquency resulted in higher levels of stigmatization by family members for girl offenders than boy offenders in adolescence.

Regardless of whether or not males and females are equally subject to stigmatization and labeling, it is also important to determine if the effects of stigmatization are equal for males and females. While official stigma may trigger a process of social exclusion from conventional networks and limit opportunities for

reintegration for both men and women (Becker, 1963; Paternoster and Iovanni, 1989), it is possible that social exclusion may be more detrimental for women than men. One of the more recent theories of psychological development, Relational-Cultural Theory (Miller, 1976), suggests that while the path to male maturity is to become independent with a goal of becoming self-sufficient, clearly differentiated, and autonomous, a woman's path to maturity is different. Instead of valuing independence, the goal for women is to build a sense of connection with others. When their actions arise out of, and lead back into connections with others, women develop a sense of self and self-worth (Covington, 2002). Researchers who have examined Relational-Cultural Theory have found that connections with others are so crucial to women that many of the psychological problems of women can be traced to relationship problems, whether with families, friends, or other members of society (Bylington, 1997). Supporting this idea, Burke and Weir (1978) found in their study of adolescent life stress, social support, and well being that females allow their identities to be defined or molded by their relationships. Similarly, while examining how adolescents deal with stress, Windle (1992) found that by middle adolescence, girls are more dependent on family support than boys are.

As females may be more dependent on relationships than males, it seems plausible that stigmatization, which can damage connections between others and cause the stigmatized individual to be isolated or outcast from society, may have more severe consequences for women than for men throughout the life course. Additionally, as life course researchers have stated the significance of bonds in desistance from crime (Sampson and Laub, 1990), it is possible that damaging social bonds through

stigmatization may limit opportunities to desist from crime more so for women than men. Recently, McGrath (2010) found support for this proposition by finding that feeling stigmatized after contact with the criminal justice system was a significant predictor of reoffending for women, but not for men. Despite this support, research on the relationship between gender and stigma is limited and should continue to be pursued.

CHAPTER 5. INCONSISTENCIES IN PRIOR RESEARCH ON DEVELOPMENTAL AND LIFE COURSE CRIMINOLOGY: POTENTIAL MEASUREMENT ISSUES

As discussed at the end of chapter 2, though research in the field of developmental and life-course criminology has been growing over the past few decades, it has been marked by inconsistencies in research finding. Due to the evolving nature of this field of criminology, several key theoretical elements have failed to be consistently explained or conceptualized. A primary goal of scientific research is the production of knowledge that is generalizable, meaning it is not confined to the particulars of time and place (Lucas, 2003). The generalizability of research findings is often referred to as external validity, and is related to how dependable a measure is across contexts. When assessing external validity, one criterion that is essential is construct validity (ibid.). Though a somewhat separate concept, construct validity refers to the extent to which measures accurately reflect the theoretical concepts they are intended to measure. If measures of the same concept are not reflected consistently across research studies, then findings cannot be synthesized and generalized.

Most relevant to the current study is the issue of desistance. Despite growing research on this issue, few studies have offered an operational definition of desistance, and there currently is no consensus on the concept (Laub and Sampson, 2001). Uggen and Massoglia (2003) commented that it is difficult to draw empirical generalizations from the literature on desistance and crime because conceptual and operational definitions of desistance vary considerably across studies. Most desistance research has focused on a static definition of desistance, which identifies desistors as anyone who offends at least once before a specified cutoff (such as age 18) but not afterwards

(Bushway, Thornberry and Krohn, 2003). This measure of desistance is appealing because it provides a measure consistent with the basic meaning of the word – ceasing or stopping something- but has a number of drawbacks as well. Unfortunately, using a static measure of desistance generally uses an arbitrary cutoff point between the pre and post periods. Also, a static desistance measure assumes that all offenders are part of a homogeneous group with identical criminal careers, an issue that is not supporte by research. Finally, using a static measure of desistance can be questionable because there is no way to determine if the chosen follow-up period (which is usually more dependent on the sample data than theory) is long enough to know whether someone has really stopped offending (ibid.). For these reasons, Bushway and colleagues (2001) suggested the use of a dynamic measure of desistance that looks more at the process of ceasing offending as opposed to a state of cessation. They argued that since everyone does not offend at the same rate, nor does everyone cease offending at the same time, a dynamic approach recognizes that there may be different paths to desistance (Bushway, Thornberry and Krohn, 2003). Bushway, Thornberry and Krohn (ibid.) compared the percentage of offenders from the same sample that were identified as desistors using a static desistance measure and a dynamic desistance measure and found that results varied significantly. Using the static measure, 27.6% of the sample was identified as desistors. The dynamic model identified only 8.4% of the sample as desistors. Additionally, there was agreement with only 4.8% of the cases using the two measures. Though this was only one study, it illustrates the issue of construct validity, and how conceptualizing desistance in two different ways can dramatically affect results.

Another issue of concern for research on desistance relates to the level of initial offending required to be a good candidate for inclusion in a desistance analysis (Kazemian, 2007). It has been argued that there is significant heterogeneity among offenders, and that desisting from crime after a career that includes only one or two minor offenses may be very different than stopping after a career of many offenses (Loeber and LeBlanc, 1990). Additionally, if someone only offended one or two times in adolescence, there is a good chance that another offense would not be observed in the near future, even if no behavioral change occurred (Bushway, Thornberry and Krohn, 2003). For these reasons, recent research has pushed for desistance analyses to be conducted on various offender groups, as opposed to a single analysis that treats all offenders as being part of one group. Bushway and colleagues (2003) commented that individuals who differ in their "original levels of offending should be differentiated because they may be experiencing different causal forces as they decline to low levels of offending" (p. 134). As Kazemian (2007) explains, the logic behind using offender typologies is that explanatory and causal processes vary between offenders, suggesting that there is not a general theory of desistance. Additionally, Kazemian argues that desistance research should compare the results of analyses with and without the inclusion of occasional offenders, and further suggests that it "may be useful to impose a threshold of seriousness to avoid only documenting trivial behavior" (p. 12).

The suggestion by Kazemian regarding the use of a threshold of seriousness raises another issue plaguing desistance research: the issue of how to measure delinquency. Various measures have been used throughout research in developmental and life-course criminology to capture offending behavior, and there has been little discussion over

which conceptualization is most appropriate or how alternative ways of measuring delinquency may impact overall findings. Commonly used measurements for capturing delinquent behavior include frequency of offending (the number of times an individual participated in a delinquent act during a fixed amount of time), severity of offending (a variation of frequency of offending that gives weight to delinquent activity believed to be more serious), and variety of offending (which gives equal weight to all crimes without regard for frequency of activity). Arguably, just as measuring desistance may yield very different results, measuring delinquency differently may have the same effect.

Returning to the issues of external validity and construct validity, some specific discrepancies found in the literature on developmental and life-course criminology may be explained by measurement differences. As discussed in Chapter 2, research is mixed on the association between romantic relationships and employment on desistance. One explanation for this discrepancy is the disregard for the quality of the bonds in question. As originally posited by Sampson and Laub (1990; 661), it is the quality or strength of the bond that is important in fostering change, not simply the absence or presence of a bond. Though prior research has addressed the basic question of gender differences in social bonds in the past, methodological issues with prior studies warrant the need for continued research. Most studies on the relationship between gender and social bonds have failed to provide any measure of bond quality (Alarid et al., 2000; King et al., 2007; Li and MacKenzie, 2003; Uggen and Kruttschnitt, 1998). Other studies have focused on high rate offenders, preventing any examination of how delinquency may differentially affect women who offend at lower rates (Benda, 2005; Giordano et al., 2002). Simons and colleagues (2002) examined social bonds in a sample of 236 young adults, taking

into account quality of social bonds. However, the data for their study was limited in that it used a homogeneous (non-minority) sample from Iowa measured at two time periods (9^{th} grade at about 14 years old and 6 years later). Additionally, the authors measured relationship quality by video-taping a single interview at time two and coding the behavioral interaction between the couple, and the authors assessed the causal relationship between social bonds and delinquency at the same time period, presenting time order issues. Broidy and Cauffman (2006) also took into account bond quality when assessing the relationship between social bonds, desistance, and gender. However, the authors used data from the 1920s, during which time women were commonly arrested for having sex outside of marriage. Obviously, this "delinquency" would naturally resolve itself should a woman get married, creating problems when looking at the relationship between bonds and desistance.

The current study improves upon prior research and addresses measurement issues that pose a threat to construct and external validity in a number of ways. First, this study examines how criminal behavior may have differential effects for men and women on transitions out of crime, as identified by Sampson and Laub (1993), such as romantic relationships and employment. The current study not only accounts for the presence or absence of these bonds, but also measures the quality of the bonds, which is a more accurate conceptualization of the theory presented by Sampson and Laub. Additionally, this study measures social bonds at an earlier time period than the final measure of delinquency, preventing time order issues that were present in several of the previous studies.

Second, this study examines the likelihood of desistance from crime by gender to determine if men and women desist at equal rates, controlling for involvement in criminal behavior. As suggested by prior research, the current study divides offenders into various offender groups, allowing for a comparison of the desistance process among low, mid, and high rate offenders. Though prior research has looked at rates of desistance for men and women, analyses have not been conducted which look at rates of desistance for men and women matched by offending behavior. Males and females are matched by offending behavior using the distribution of female delinquency to group individuals as 1) low rate offenders, 2) mid rate offenders, and 3) high rate offenders. This grouping based on female delinquency allows for a more direct look at the effects of delinquency on men and women, instead of comparing female offenders to male offenders grouped by the distribution of male delinquency, which would have different thresholds for the determination of low, mid, and high rate offenders.

As there is no consensus in the field regarding the proper way to measure desistance, the current study utilizes two measures of desistance. The first is a static measure of desistance described above that is commonly used in DLC research. The second measure of desistance is more in line with a dynamic process, though it varies slightly from dynamic measurements of desistance used before. In this study, the dynamic measure of desistance looks at change in offending between adolescence and early adulthood. Most longitudinal studies have a limited period of time for follow up on offenders in terms of their life course, which can result in issues of false desistance (Kazemian, 2007). As the current study follows participants until their mid-twenties, the alternate measure of desistance used in the analysis is more a measure of de-escalation,

which has been shown to precede desistance. Using these two measures of desistance will allow for a comparison of results to once again assess the impact of desistance measurement.

Additionally, this study measures delinquency in two ways in order to assess the impact methodological differences can have when examining the effects of delinquency in DLC research. Self reported delinquency is first measured using only frequencies. Then, offenses are weighted using the Sellin-Wolfgang crime seriousness score (Wolfgang, Figlio, Tracey, and Singer, 1985) to create a self reported delinquency score that addresses severity. Results from the analyses using these two measures of delinquency are then compared.

CHAPTER 6. PRESENT STUDY

6.1. THEORY AND HYPOTHESES

Several hypotheses for the current research study are as follows:

1) *Transitions out of crime*

In examining the relationship between adolescent delinquency, the formation of quality social bonds, and desistance from crime, and considering research suggesting that stigmatization may block female offenders from acquiring quality prosocial bonds:

H_1: It is hypothesized that females who engage in adolescent criminal behavior will experience more stigmatization than males with similar offending behavior.

H_2: It is hypothesized that females who engage in adolescent criminal behavior will have lower quality relationships than males with similar offending behavior.

H_3: It is hypothesized that females who engage in adolescent criminal behavior will have less satisfying jobs than males with similar offending behavior.

H_4: It is hypothesized that bond quality will be significantly related to stigmatization, with higher levels of stigmatization resulting in lower levels of bond quality.

2) *Desistance from crime*

As theories (Sampson and Laub, 1993) and prior research have shown that bonds are related to desistance from crime later in life:

H_5: It is hypothesized that the presence of social bonds will be significantly related to desistance from crime, with a positive relationship between bond presence and desistance.

H_6: It is hypothesized that the strength (quality) of social bonds will be significantly related to desistance from crime, with stronger bonds related to higher levels of desistance.

H_7: It is hypothesized that the correlation between quality of social bonds and desistance will be greater than the correlation between the presence of social bonds and desistance.

H_8: It is hypothesized that stigmatization will be significantly related to desistance from crime, with lower levels of stigmatization related to higher levels of desistance.

As it is hypothesized that criminal behavior will have differential effects on men and women throughout the life course, particularly, that deviant behavior will be more stigmatizing for women, limiting the formation of prosocial bonds as suggested by Li and MacKenzie (2003), and taking into account the potential role moderating role of stigmatization in the desistance process:

H_9: It is hypothesized that deviant females will be less likely to desist from crime than males with similar offending behavior.

H_{10}: It is hypothesized that the effect of stigmatization on desistance will be greater for females than males with similar offending behavior.

H_{11}: It is hypothesized that the process of desistance, specifically the relationship between adolescent delinquency, stigmatization, relationship quality, and desistance, will differ between men and women.

Finally, as it is theorized that inconsistent findings in prior literature are due to differences in variable measurement:

H_{12}: It is hypothesized that analyses using different measures of the same construct (delinquency or desistance) will yield different results.

6.2. DATA

The current study utilizes data from the National Youth Survey, a longitudinal study including seven waves of data collection beginning in 1977 and ending in 1987. The original wave of the survey included 1,725 youths (male and female) ranging in age from 11-17. Selection into the panel study began with a national probability household sample of adolescents in the United States. The original multi-stage cluster sample design resulted in a list of approximately 67,000 households, from which 8,000 households were selected for participation in the study. Of the selected households, 2,360 youth were eligible for the study, though parental refusal from 635 of the eligible youth eliminated them from the study (Elliott, Huizinga, and Ageton, 1985). The first

five waves of the study were conducted during consecutive years from 1977-1981, with the sixth wave conducted in 1984, and the seventh wave in 1987 when the participants were 22-29 years old. Each wave inquired about events occurring in the previous year, providing a reference period of 12 months. A comparison of census data showed the sample youth to be representative of the youth population in the United States during the late 1970s (Elliott et al., 1985).

The NYS is an appropriate longitudinal study for use in testing the various hypotheses of this study. First, the study uses self reported measures of delinquency, which provides a good scenario for examining gender differences in DLC, as there are fewer gender differences in offending when examining self reported delinquency than official data (Canter, 1982) and eliminates any confounding factors associated with official sanctioning that might be present when looking solely at arrest history. The NYS also measures crime for males and females from adolescence into adulthood while also collecting information on a variety of factors that may influence participation in antisocial behavior, such as neighborhood characteristics, socioeconomic factors, peer attitudes and behaviors, educational achievement and aspirations, and influence of significant others. Additionally, the NYS provides longitudinal data at enough time points to reliably measure trends.

One issue of concern when using the NYS is that of panel effects. Laurtisen (1998) found that regardless of the subject's age at the beginning of the data collection process for the NYS, overall self reported delinquency consistently decreased over time. This finding goes against the age-crime curve in criminology (that offending should peak between ages 16 and 17, generally speaking), suggesting that self reporting decreased

relational to an individual's time in the sample, with less reporting occurring the longer the individual is in the study. These panel effects can be problematic because it indicates that delinquency measures based on self reported delinquency may not be accurate, especially in later waves of the NYS. With the age-crime curve in mind, previous research studies involving the NYS have taken measures at later waves, or when participants were of a specific age (such as age 17 (King, Massoglia and Macmillan, 2007)). Taking into account the findings from Laurtisen (1998), the current study captures adolescent delinquency by using the highest rate of delinquency from wave 1 through wave 5, regardless of the individual's age at the time. Additionally, other measures such as parent stigma, friend stigma, and deviant peer exposure in adolescence are averaged throughout waves 1 through 5. It is believed that these measurement adjustments will help to counteract the effects of time in sample bias present in the NYS.

Another area of concern with the NYS, as with any longitudinal study, is that of attrition. Of the 1,725 youths originally participating in wave 1 of the survey, only 1,517 participated in the final wave of the study (wave 7), representing an attrition rate of 12%. However, according to Elliott and colleagues (1989), this attrition rate was rather small and the researchers concluded, therefore, that the representativeness of the sample was not affected.

6.3. METHODS

The analyses involve various types of statistical techniques to test the aforementioned hypotheses. The examination of transitions out of crime/desistance uses T-Tests, regression analyses, as well as Structural Equation Modeling. For hypotheses 1-

3, T-Tests are utilized with gender as the grouping variable and stigmatization, relationship quality, and job satisfaction as the dependant variables, respectively. To control for the effect of other variables, OLS regression models are used after the T-Tests, as the dependent variables are continuous measures. Control variables include age, race, neighborhood conditions, and association with antisocial peers. For hypothesis 4 – 6 and 8, Pearson's Correlations are used to determine the relationships between bond quality, stigmatization, and desistance for continuous variables. For nominal or ordinal variable combinations when examining the relationships between bond presence and desistance, chi-square tests are conducted.

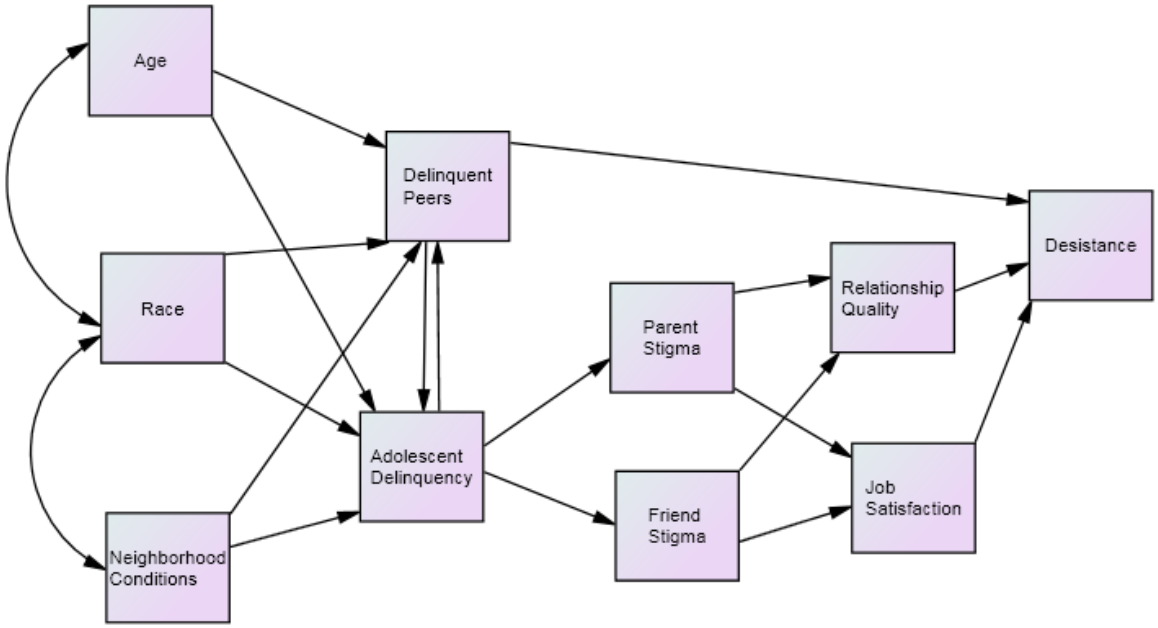
Hypothesis 9, which focuses on the relationship between gender and desistance, once again utilizes Independent samples T-Tests, as well as Chi-Square tests.

To test hypothesis 10, OLS and logistic regression models are used as desistance is measured in two ways. Few studies have offered an operational definition of desistance, and there is currently no consensus on the issue as to what desistance actually is (Piquero et al., 2003). Loeber and LeBlanc (1990) suggest that before criminal behavior completely ceases, lambda (offending frequency) declines. This study measures desistance in two ways: true desistance (dichotomous) and change in offending (continuous). OLS regression is used for the continuous desistance dependent variable measuring change in offending. Logistic regression is used with the dichotomous dependent variable of true desistance. Individuals are considered to be true desistors if they have an adolescent delinquency score greater than zero and a delinquency score equaling zero at wave 7. For this analysis, and interaction term is created between parent stigmatization in adolescence and gender, as well as friend stigmatization in adolescence

and gender. In the regression models, a significant interaction term indicates that the significant effect of stigmatization on desistance differs by gender.

To examine the relationship between stigmatization, social bond quality and desistance (hypothesis 11), as well as the general theme of the current study that there are gender differences associated with delinquency throughout the life course, structural equation modeling is utilized to conduct path analyses. While multivariate analyses like OLS or logistic regression are useful for examining direct relationships, a path analysis is useful for examining more complex, causal relationships based on a priori hypotheses developed by the researcher (Shipley, 1997). A multi-group approach is taken that explores how various parameters are different according to group membership (in this case, males versus females). Model parameters are compared to determine where significant differences may occur in the desistance process for men and women. The model will use variables taken at different time points to identify the causal relationships between delinquency, stigmatization, social bonds, and desistance. The original model based on a priori hypotheses regarding the desistance process directed by prior research is displayed in figure 1.

FIGURE 1: ORIGINAL CAUSAL MODEL FOR DESISTANCE PROCESS



To assess hypothesis 12, all analyses using delinquency as a dependent variable are carried out two times using the various measures of delinquency (frequency and severity). Overall findings are then compared to determine the extent to which delinquency measurement affects research findings when examining developmental and life-course issues.

One key element to the current analysis is the matching of male and female offenders on offending behavior. Instead of matching, for example, high rate male offenders with high rate female offenders (who likely significantly differ in offending behavior with high rate male offending behavior far exceeding high rate female offending behavior), the current study groups offenders based on the distribution of female offending behavior. This allows for more of a direct comparison in assessing how adolescent delinquency may have different consequences for male and females through

the life course. Subgroups for the analysis are as follows: low rate, mid rate, and high rate offenders based on frequency of offending; and low rate, mid rate, and high rate offenders based on severity of offending. Using these subpopulations, the hypothesis tests will be carried out six additional times, once for each subgroup.

6.4. MEASURES

Offending: Frequency. At each wave of the NYS, *offending: frequency* will be measured using a sum of the frequency of offending for the crimes listed in Table 1. The behaviors selected are those that are consistently measured in all waves of the NYS. This variable is used to compute variables for adolescent and adult offending frequencies.

TABLE 1: CRIMES USED FOR *OFFENDING: FREQUENCY*

Crime Type	Crime
Violent Crime	1. Attacked someone
	2. Hit teacher
	3. Hit other students
	4. Sexually assaulted someone
	5. Used force on someone (teacher, student, other)
Property Crime	6. damaged family property
	7. damaged other property
	8. stolen motor vehicle
	9. stolen something worth less than $5
	10. stolen something worth between $5-$50
	11. stolen something worth more than $50
	12. bought stolen goods
	13. stolen money from family
	14. took a vehicle
	15. avoided paying for things
	16. broken into building
Drug Crime	17. sold marijuana
	18. sold hard drugs
Other Crime	19. carried a hidden weapon

Offending: Severity. Offending frequency of the various offences will be weighted in accordance with the Sellin-Wolfgang scale to create the measure *offending:*

severity. Offenses with Sellin–Wolfgang weight are listed in Table 2. This variable is used to compute variables for adolescent and adult offending severity.

TABLE 2: CRIMES USED FOR *OFFENDING: SEVERITY*

Crime	Sellin-Wolfgang Weight
1. sold hard drugs	21.6
2. attacked someone	13.5
3. used force/strong-arm	11.7
4. sold marijuana	9.5
5. stole something worth more than $50	8.9
6. break & enter	7.5
7. bought stolen goods	6
8. took a vehicle	5.4
9. stole from family/employer	5.1
10. carried a hidden weapon	4.5
11. stole something worth $5-$50	3.3
12. vandalized property	3.1
13. been drunk	2.3
14. avoided paying for things	2.2
15. been rowdy or loud	2.1
16. stole something worth less than $5	1.7
17. hitchhiked where illegal	1

Adolescent Offending: Frequency[1] is the highest frequency of offending using the measures listed above across the first five waves of the NYS. This variable ranges from 0 to 2595, with higher values representing higher levels of offending.

Adolescent Offending: Severity is the highest severity of offending using the measures listed above across the first five waves of the NYS. This variable ranges from 0 to 29,421, with higher values representing higher levels of offending.

Adult Offending: Frequency is the offending frequency as measured in wave 7 of the NYS. This variable ranges from 0.00 to 2099.00, with higher values representing higher levels of offending.

Adult Offending: Severity is the offending severity as measured in wave 7 of the NYS. This variable ranges from 0 to 7942.50, with higher values representing higher levels of offending.

[1] Due to the skewed nature of adolescent offending: frequency and adolescent offending: severity, normalized versions of these variables using a natural log transformation will be used for hypothesis testing.

True Desistance: Frequency is a dichotomous measure determined by comparing *Adolescent Offending: Frequency* and *Adult Offending: Frequency*. Individuals who have a score greater than 0 for *Adolescent Offending: Frequency,* and a score of 0 for *Adult Offending: Frequency* are considered true desistors and assigned a value of 1. Individuals with an *Adult Offending: Frequency* score greater than 0 are considered to have not desisted from crime and are assigned a zero. Non-offenders (those with an adolescent and adult offending frequency of 0) are assigned a value of -1, and are excluded from the analysis.

True Desistance: Severity is a dichotomous measure determined by comparing *Adolescent Offending: Severity* and *Adult Offending: Severity.* Individuals who have a score greater than 0 for *Adolescent Offending: Severity,* and a score of 0 for *Adult Offending: Severity* are considered true desistors and assigned a value of 1. Individuals with an *Adult Offending: Severity* score greater than 0 are considered to have not desisted from crime and are assigned a zero. Non-offenders (those with an adolescent and adult offending severity of 0) are assigned a value of -1, and are excluded from the analysis.

Desistance: Change in Frequency[2] is a continuous measure computed by subtracting *Adolescent Offending: Frequency* from *Adult Offending: Frequency.* For this measure, negative values indication a decrease in offending from adolescence to adulthood, suggesting the individual is in the process of desistance. Increasingly negative values represent higher levels of desistance. Increasingly positive values indicate an increase in offending from adolescence to adulthood. This variable ranges from a low of

[2] Due to the skewed nature of the Desistance: Change variable for severity, models will use the square root transformation for hypothesis testing. The Desistance: Change in Frequency variable was determined to be normal when performing diagnostic tests for testing regression assumptions.

-2530.00 (largest decrease in offending) to a high of 1993.00 (largest increase in offending).

Desistance: Change in Severity is a continuous measure computed by subtracting *Adolescent Offending: Severity* from *Adult Offending: Severity.* For this measure, negative values indication a decrease in offending from adolescence to adulthood, suggesting the individual is in the process of desistance. Increasingly negative values represent higher levels of desistance. Increasingly positive values indicate an increase in offending from adolescence to adulthood. This variable ranges from a low of -27,906.60 (largest decrease in offending) to a high of 7763.70 (largest increase in offending).

Quality of relationship6 is a multi-item measure using the following items from wave 6 of the NYS: importance of activities with partner, partner's influence, want to be like partner, satisfaction with relationship, shared interests and activities with partner, warmth/affection from partner, quality of sexual relations, support/encouragement from partner, loyalty with partner, stress/pressure in relationship (Reverse Coded), partner tried to influence to do wrong (Reverse Coded). This variable ranges from a low of 9.00 to a high of 45.00. Lower values represent lower quality relationships. Higher values represent a higher quality relationship.

Quality of relationship7 is a multi-item measure using the following items from wave 7 of the NYS: importance of activities with partner, partner's influence, want to be like partner, satisfaction with relationship, shared interests and activities with partner, warmth/affection from partner, quality of sexual relations, support/encouragement from partner, loyalty with partner, stress/pressure in relationship (Reverse Coded), partner tried to influence to do wrong (Reverse Coded). This variable ranges from a low of 10.00 to a

high of 45.00. Lower values represent lower quality relationships. Higher values represent a higher quality relationship.

Job satisfaction6 is measured using responses in wave 6 of the NYS to the question: "How satisfied are you with your job?" Responses are in the form of a Likert scale with the following values: 1= very dissatisfied, 2= somewhat dissatisfied, 3= neither, 4= somewhat satisfied, 5= very satisfied.

Job satisfaction7 will be measured using responses in wave 7 of the NYS to the question: "How satisfied are you with your job?" Responses are in the form of a Likert scale with the following values: 1= very dissatisfied, 2= somewhat dissatisfied, 3= neither, 4= somewhat satisfied, 5= very satisfied.

Presence of a relationship bond6 is measured dichotomously from wave 6 using the question: "With whom did you live the last year?" Respondents who answer with a spouse, with a spouse and in-laws, with a spouse and parents, with a boyfriend/girlfriend, with a boyfriend/girlfriend and parents, or with a boyfriend/girlfriend and in-laws are coded as having a relationship bond. This variable uses a value of 0 to represent no relationship bond, and a value of 1 to represent the presence of a relationship bond.

Presence of a relationship bond7 is measured dichotomously from wave 7 using the question: "With whom did you live the last year?" Respondents who answer with a spouse, with a spouse and in-laws, with a spouse and parents, with a boyfriend/girlfriend, with a boyfriend/girlfriend and parents, or with a boyfriend/girlfriend and in-law, are coded as having a relationship bond. This variable uses a value of 0 to represent no relationship bond, and a value of 1 to represent the presence of a relationship bond.

Maintaining a job6 is measured dichotomously from wave 6 using the question: "Did you have a job in the last year?" A response of 1 is coded as affirmatively having a job bond, a response of 0 is coded as not having a job bond.

Maintaining a job7 will be measured dichotomously from wave 7 using the question: "Did you have a job in the last year?" A response of 1 is coded as affirmatively having a job bond, a response of 0 is coded as not having a job bond.

Gender is a dichotomous measure with 0= male and 1= female taken from wave 1 of the NYS.

Age is a continuous measure ranging from 11-17 taken from wave 1 of the NYS

Race is a dichotomous measure taken from wave 1 of the NYS, with 0= white and 1= non-white.

Neighborhood conditions1 is a multi-item construct taken from wave 1 of the NYS and include problems with: winos and junkies, abandoned houses, run down and poorly kept buildings, and assaults and muggings. The values for this variable range from 2.00 to 12.00, with higher values representing greater perceived problems with the issues listed above.

Association with antisocial peers is measured from waves 1-5 and averaged for each respondent using a sum of the frequency of the following items: how many of your friends have destroyed property, stolen something worth less than $5, hit someone, broken into a vehicle, sold hard drugs, stolen something worth more than $50, suggested you break the law. This variable ranges from a low of 9.00 to a high of 38.40. Higher values represent a higher number of associations with deviant peers.

Stigmatization:Parents1 is measured by self reported perceived labeling by parents on the following items: agree that you are well liked (reverse-coded (rc)); agree that you need help; agree that you are a bad kid; agree that you are often upset; agree that you are a good citizen (rc); agree that you get along well with others(rc); agree that you messed up; agree that you break the rules; agree that you have a lot of personal problems; agree that you get into trouble; agree that you are likely to succeed(rc); agree that you do things against the law. Scores from waves 1-5 are averaged. This variable ranges from a low of 12.60 to a high of 44.20. Higher scores represent greater perceived stigmatization.

Stigmatization: Friends1 is measured by self reported perceived labeling by friends on the following items: agree that you are well liked (rc); agree that you need help; agree that you are a bad kid; agree that you are often upset; agree that you are a good citizen (rc); agree that you get along well with others(rc); agree that you messed up; agree that you break the rules; agree that you have a lot of personal problems; agree that you get into trouble; agree that you are likely to succeed(rc); agree that you do things against the law. Scores from waves 1-5 are averaged. This variable ranges from a low of 11.00 to a high of 39.80. Higher scores represent greater perceived stigmatization.

CHAPTER 7. RESULTS

7.1. DESCRIPTIVE STATISTICS

As mentioned in the preceding chapter, the National Youth Survey involved 1,725 participating youth selected from a national probability sample of the United States. As desired, the youth participating in wave 1 of the NYS were determined to be representative of the youth population in the United States in the 1970s (Elliott et al., 1985). The sample is predominately white (78.9%) males (53.2%), ranging from 11 to 17 years old (mean age 13.87), from suburban families (44.8%) with an annual household income between $14,001 and $18,000. The current study uses a variety of measures listed in Chapter 5. Descriptive information for the variables is listed in Table 3 for the full sample.

One main goal of the current study is to compare men and women with equivalent offending behavior. To do this, men and women in the study are split into four delinquency categories based on the distribution of female reported delinquency. The four categories are: non-offenders, low rate offenders, mid rate offenders, and high rate offenders. Most female offenders have low scores on the various delinquency measures in adolescence (frequency and severity). Considering the distribution, the decision was made to separate the bottom 75% of female offenders (after excluding non offenders) as low rate offenders. Mid rate offenders are those in the 76%-90% of offending. High rate offenders are the highest 10% of female offenders. Specific cut points and the number of males and females falling into each group are listed in Table 4.

TABLE 3: VARIABLE DESCRIPTIVE INFORMATION

Variable	Valid Percent	Scale Alpha	Mean	S.D.	Min	Max
Age			13.87			
Race						
White	78.9					
Non White	21.1					
Sex						
Male	53.2					
Female	46.8					
Adolescent Offending: Frequency			40.36	139.50	0.00	2595.00
Adolescent Offending: Severity			244.28	1204.82	0.00	29421.00
Adult Offending: Frequency			15.54	86.16	0.00	2099.00
Adult Offending: Severity			90.22	434.38	0.00	7942.50
True Desistance: Frequency						
Yes Desist	49.80					
No Desist	26.70					
Non-Offender	10.10					
True Desistance: Severity						
Yes Desist	33.00					
No Desist	56.60					
Non-Offender	10.30					
Desist: Change in Frequency			-22.28	153.23	-2530.00	1993.00
Desist: Change in Severity			-143.45	1175.73	-27906.00	7763.70
Quality of Relationship w6		.888	37.60	5.87	9.00	45.00
Quality of Relationship w7		.901	37.22	6.09	10.00	45.00
Job Satisfaction w6			3.94	1.08	1	5
Job Satisfaction w7			3.97	1.02	1	5
Relationship Bond w6						
Yes	26.60					
Relationship Bond w7						
Yes	47.50					
Job Bond w6						
Yes	88.40					
Job Bond w7						
Yes	90.30					
Neighborhood Conditions1		.715	4.59	1.23	2.00	12.00
Association: Antisocial Peers		.819	17.30	4.85	9.00	38.40
Stigmatization: Parents1		.843	25.39	4.89	12.60	44.20
Stigmatization: Friends1		.807	23.26	4.36	11.00	39.60

TABLE 4: GROUP INFORMATION

Variable	Valid Percent	N	Minimum	Maximum
Frequency: Non Offender			0	0
Male	6.3	46		
Female	25.9	179		
Frequency: Low Rate Offender			1	36
Male	47.9	350		
Female	55.1	381		
Frequency: Mid Rate Offender			37	126
Male	24.6	180		
Female	11.4	79		
Frequency: High Rate Offender			127	2595
Male	21.2	155		
Female	7.5	52		
Severity: Non Offender			0	0
Male	9.4	69		
Female	20.1	138		
Severity: Low Rate Offender			1	62.2
Male	49.6	363		
Female	59.9	410		
Severity: Mid Rate Offender			62.21	232
Male	23.6	173		
Female	12.1	83		
Severity: High Rate Offender			232.1	4255
Male	17.3	127		
Female	7.9	54		

Before beginning more in depth analyses, bivariate correlations are examined to establish significant relationships between variables using the full sample, as well as to ensure that there are no issues with multicollinearity. A matrix presenting Pearson's correlations is presented in Tables 5a and 5b. An examination of the correlations shows a weak to moderate relationship between most of the variables in the dataset. Though the delinquency measures are significantly correlated with one another, those measures are never used together in the same model, hence avoiding the issue of multicollinearity. Unfortunately, the stigmatization measures (parent and friend) are highly correlated with one another. Because of this, multivariate models that use stigmatization for an independent variable will only use one of the possible measures. The selection for which stigmatization measure will be used is based upon the results of hypothesis testing to

determine which measure (parent stigma or friend stigma) is more influential for the particular offender group being analyzed. There do not appear to be any multicollinearity issues with the other independent variables, as none of the remaining variables display strong correlations.

TABLE 5A: CORRELATIONS FOR INDEPENDENT VARIABLES

	A	B	C	D	E	F	G
AGE (A)	1						
SEX (B)	-.046*	1					
RACE (C)	-.045*	-.029	1				
Neighborhood Conditions 1 (D)	-.057*	-.007	.325**	1			
PStigma1 (E)	.025	-.153**	.144**	.084**	1		
FStigma (F)	.038	-.220**	.140**	.073**	.928**	1	
Adolescent Delinquency Frequency (G)	.036	-.149**	.021	.061*	.293**	.284**	1
Adolescent Delinquency Severity (H)	.056*	-.111**	.003	.050*	.264**	.255**	.868**
Job Quality 6 (I)	.034	.093*	-.019	-.001	-.125*	-.105*	-.031
Relationship Quality 6 (J)	-.002	-.037	-.015	-.023	-.125**	-.110**	-.024
Job Bond6 (K)	.103**	-.101**	-.164**	-.098**	-.116**	-.100**	-.051*
Relationship Bond 6 (L)	.301**	.181**	-.096**	-.015	.021	.007	-.017

***** Correlation is significant at the p < .05 level
** Correlation is significant at the p < .01 level

TABLE 5B: CORRELATIONS FOR INDEPENDENT VARIABLES (CONTINUED)

	H	I	J	K	L
Adolescent Delinquency Severity (H)	1				
Job Quality 6 (I)	-.007	1			
Relationship Quality 6 (J)	-.001	.029	1		
Job Bond6 (K)	-.041	.282**	.009	1	
Relationship Bond 6 (L)	.002	-.005	.086**	-.028	1

***** Correlation is significant at the p < .05 level
** Correlation is significant at the p < .01 level

7.2. ANALYSIS OF FULL SAMPLE

Before performing the analyses for subpopulations of the data set, the full sample is analyzed to give an additional point of comparison. Information regarding the full

sample can be found in section 6.1. The full sample contains 918 male participants, and 807 female participants. Section 6.3 begins the division of the sample into subpopulations, which will allow for tests of the full hypotheses which call for matching males and females on offending behavior. This preliminary analysis using the full sample does not match males and females on offending behavior, but provides an indication of how these variables interact before the population is broken down into subgroups to compare males and females matched by offending behavior.

The first step to test hypotheses 1, 2, and 3 is to run T-Tests to determine if there are any mean differences between males and females in social bonds. Those individuals without a job or relationship at waves 6 or 7 were considered missing and not included in the T-Tests. Hypotheses 1-3 examined mean differences for the following variables: *Stigmatization: Parents 1, Stigmatization: Friends 1*, *Quality of Relationship 6, Quality of Relationship 7*, *Job Satisfaction 6*, and *Job Satisfaction 7*. Hypothesis 1 states that females who engage in adolescent criminal behavior will experience more stigmatization than males with similar offending behavior. Results of the independent samples T-Tests show that males and females in this offending category do significantly differ on parental stigma during adolescence ($t=6.410$, $df=1723$, $p<.05$, equal variance assumed), as well as friends stigma during adolescence ($t=9.287$, $df=1633.31$, $p<.05$, equal variance not assumed). However, the direction of the relationship is not in the expected direction. Males have a higher mean than women for both measures of stigmatization in adolescence. For parent stigmatization, the average score for males was 26.088, whereas the average score for females was 24.593. The same pattern was seen for friend stigma (Males: 24.161, Females: 22.239). Higher scores for these measures of stigmatization

represent higher overall perceived stigma. As these relationships are not in the hypothesized direction, despite significant differences between males and females, the results fail to support hypothesis 1 for the full sample. Again, it should be noted that these results using the full sample do not take into account differences in levels of delinquency between males and females, an issue that will be addressed when conducting the analysis on the subgroups. The full sample also includes non-offenders who will be excluded from the analysis using subgroups.

For hypothesis 2, which states that females will have lower quality relationships than males with similar offending behavior, independent samples T-Tests are conducted on the following variables: *Quality of Relationship 6,* and *Quality of Relationship 7*. The results show that males and females do not differ significantly on relationship quality at wave 6 ($t=1.70$, $df=445.068$, $p>.05$, equal variance not assumed) nor do they significantly differ on relationship quality at wave 7 ($t=.346$, $df=714$, $p>.05$, equal variance assumed). As the T-Tests for relationship quality do not reveal any significant difference between males and females, hypothesis 2 is rejected.

Hypothesis 3 states that females will have less satisfying jobs than males with similar offending behavior. For this hypothesis, independent samples T-Tests are conducted on the following variables: *Job Satisfaction 6* and *Job Satisfaction 7*. The results show that women report significantly lower job satisfaction at wave 6 (Males: 4.05, Females: 3.80; $t=4.158$, $df=1206.709$, $p<.05$, equal variance not assumed) and at wave 7 (Males: 4.03, Females: 3.91; $t=1.991$, $df=1239$, $p<.05$, equal variance assumed). These results give support for hypothesis 3.

To further examine the relationship between gender and the variables of interest in hypotheses 1, 2, and 3, OLS Regressions are utilized for the relationships that were found to be significant using the independent samples T-Tests. Controlling for other factors (age, race, association with deviant peers, neighborhood conditions, as well as adolescent delinquency), results show that gender is still significant in the opposite expected direction for stigmatization in adolescence. Controlling for the same factors, results show that being a women significantly decreases job satisfaction at wave 6 by .304 and decreases job satisfaction at wave 7 by .194, upholding the results from the earlier T-Test and once again providing support for hypothesis 3.

Hypothesis 4 states that bond quality is significantly related to stigmatization. As the measures for bond quality (relationship quality and job satisfaction) as well as stigmatization (parent and friend) are all continuous variables, Pearson's Correlations are used to assess this relationship and are reported in Table 6. Pearson's Correlations show that *Relationship Quality 6* is significantly related both measures of stigmatization (*Parent1:* r=-.245, p<.01; *Friend 1:* r=-.220, p<.01). For these measures of stigmatization, the relationship is in the expected direction, with higher levels of stigmatization resulting in lower quality relationships. However, the Pearson's Correlation statistic suggests the relationship between stigma and relationship quality at wave 6 is weak (r < .30). Pearson's Correlations show that *Relationship Quality 7* is also significantly related both measures of stigmatization (*Parent1:* r=-.202, p<.01; *Friend 1:* r=-.203, p<.01). For these measures of stigmatization, the relationship is in the expected direction, with higher levels of stigmatization resulting in lower quality relationships. However, the Pearson's Correlation statistic suggests the relationship between stigma and

relationship quality at wave 7 is also weak. The Pearson's Correlations also show a significant, though very weak, negative relationship between *Stigmatization: Parent 1* and job satisfaction at wave 7 ($r=-.069$, $p<.05$). The negative relationship indicates that higher parent stigma is related to lower job satisfaction. These results give partial support for hypothesis 4.

In examining hypothesis 5, which looks at the relationship between the presence of bonds and desistance, Pearson's Correlations using change measures for desistance do not reveal any significant relationships. Chi-Square tests are used to examine the relationship between the measures of true desistance for frequency and severity, and presence of job bonds or relationship bonds at waves 6 and 7, as all of the named variables are at the nominal level. Results of the Chi-Square tests show that the only significant relationships are between *True Desistance: Severity* and job bond at wave 7 ($\chi^2=6.40$, $df=1$, $p<.05$; Cramer's $V=-.076$), relationship bond at wave 6($\chi^2=18.928$, $df=1$, $p<.05$; Cramer's $V=.131$), and relationship bond at wave 7($\chi^2=24.851$, $df=1$, $p<.05$; Cramer's $V=.148$). The relationships between these variables are weak, as indicated by the Cramer's V scores, but in the expected direction. The exception is for the relationship between desistance and job bond at wave 7, which is in the opposite direction (presence of a job indicates a lower likelihood of desistance). These results give partial support for hypothesis 5.

Hypothesis 6 focuses on the relationship between measures of desistance and bond quality. Results of the Pearson's Correlations show significant relationships between job satisfaction at wave 7 and both measures of true desistance (Frequency: $r=.138$, $p<.05$; Severity: $r=.094$, $p<.05$). These relationships are weak, but in the

expected direction. Relationship quality at wave 7 is significantly related to true desistance: severity ($r=.163$, $p<.01$). Again, this relationship is weak, but in the expected direction, with higher quality bonds related to a higher likelihood of desistance. When looking at the desistance change variables, there are no significant relationships. The results of these correlations give partial support for hypothesis 6.

For the full sample, overall it appears as though there are more relationships (in the expected direction) between bond quality and desistance than bond presence and delinquency, giving support to hypothesis 7.

As expected, using the full sample of offenders (excluding non-offenders from the analysis) to test hypothesis 8, results of the Pearson's correlations show that both parent and friend stigmatization is related to desistance. Specifically, higher stigmatization is related to larger decreases in offending when examining the delinquency change variables. These relationships are the opposite direction than expected for the change variables, but understandable considering the fact that prior delinquency is not controlled for when using the full sample. As such, individuals who participate in more delinquency have higher levels of stigmatization. However, they also have the capacity for larger decreases in offending behavior. The direction of the correlation between stigmatization and change in severity of offending is positive instead of negative because the change is severity of offending variable went through a square root transformation to normalize the distribution of the variable. The overall interpretation of the relationship is the same: higher levels of stigmatization results in greater decreases in offending behavior. The relationship between stigmatization and the dichotomous desistance variables are also

significant, and in the expected direction. Using the true desistance measure, higher levels of stigmatization result in a lower likelihood of desistance.

TABLE 6: PEARSON'S CORRELATIONS FOR H4 –H6
FULL SAMPLE

HYPOTHESIS 4	Stigmatization: Parent 1	Stigmatization: Friend 1		
Job Satisfaction W6	-.054	-.031		
Job Satisfaction W7	-.069*	-.043		
Relationship Quality W6	-.245**	-.220**		
Relationship Quality W7	-.202**	-.203**		
HYPOTHESIS 5	Desistance: Change Frequency	Desistance: Change Severity		
Job Bond 6	.045	-.031		
Job Bond 7	-.012	.043		
Relationship Bond 6	.018	.020		
Relationship Bond 7	.022	.032		
HYPOTHESIS 6	Job Satisfaction W6	Job Satisfaction W7	Relationship Quality W6	Relationship Quality W7
Desistance: Change Frequency	-.009	-.046	-.042	.039
Desistance: Change Severity	.042	.011	.021	-.066
True Desistance: Frequency	-.001	.138**	.086	.076
True Desistance: Severity	.049	.094**	.099	.163**
HYPOTHESIS 8	Stigmatization: Parent 1	Stigmatization: Friend 1		
Desistance: Change Frequency	-.178**	-.184**		
Desistance: Change Severity	.183**	.180**		
True Desistance: Frequency	-.150**	-.157**		
True Desistance: Severity	-.066*	-.107**		

***** Correlation is significant at the p < .05 level
** Correlation is significant at the p < .01 level

Not surprisingly, using the full sample of offenders in the data set (excluding non-offenders), the results of the independent samples T-Tests used to test hypothesis 9, which focuses on the relationship between gender and desistance, show that males have a larger mean decrease in offending than females, regardless of the way delinquency is measured. This is expected because without limiting the analysis to specific groups based upon female offending, males score higher on all delinquency measures than females. As such, even if equal proportions of males and female stopped offending, males would show a greater decrease in offending overall than females. For change in frequency of delinquency, the mean score for males is -40.18 versus -9.33 for females (t=-3.179,

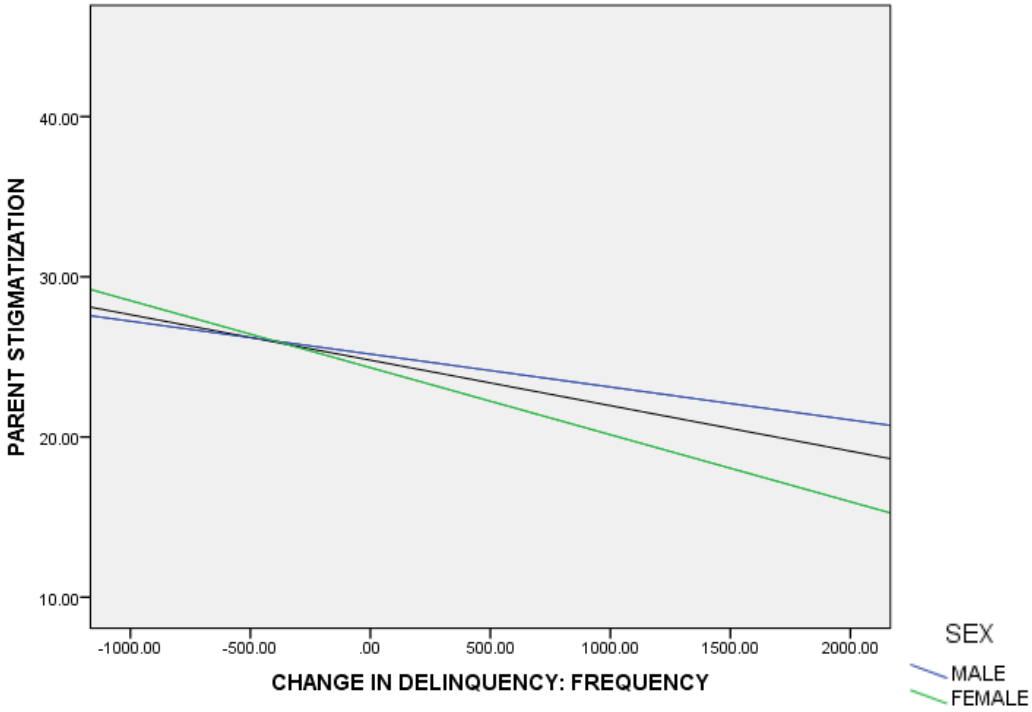
df=875.5568, p<.01, equal variance not assumed). For change in severity of offending (using the normalized version of the measure), the mean score for males is 89.20 versus 88.45 for females (t=2.137, df=716.994, p<.05, equal variance not assumed). For the dichotomous desistance measures, Chi-Square tests are used. All tests show that females are significantly more likely to desist from crime than males (frequency: χ^2=25.04, df=1, p<.01, Cramer's V=.155; severity: χ^2=32.176, df=1, p<.01, Cramer's V=.176).

Hypothesis 10 tests the relationship between stigmatization and sex in desistance to determine if there is an interaction effect between these two variables. A significant interaction effect for a variable XZ on Y indicates that the relationship between X and Y changes depending upon the value of Z. For this study, there are multicollinearity issues between friend stigmatization in adolescence and parent stigmatization in adolescence. Because of this, both variables cannot be used in the same model. Due to the findings from the previous hypotheses that parent stigmatization had a stronger relationship to variables in this study than friend stigmatization, only parent stigmatization is used in the models to test interaction effects between stigmatization and sex. Interaction effects were examined using both measures of desistance as dependent variables: change in offending and true desistance. Using the full sample of offenders, results show a significant interaction effect between parent stigmatization and gender for the change in frequency of offending DV (b= 7.830) as well as the change in severity of offending DV (b= -.295)[3]. The effects of the interaction terms were in the same direction, though they did not correspond with the hypothesis. First, the regression analysis using the full sample showed that higher levels of stigmatization were related to larger decreases in offending

[3] Again, though these relationships appear to be in opposite directions, the interpretation of the relationship is the same as the change in severity of offending dependent variable was reverse coded through the normalization process.

(greater levels of desistance), which was the opposite of what was expected. Specifically, it was expected that stigmatization would result in continued offending (lower levels of desistance), and that females with high levels of stigmatization would have even lower levels of desistance than males with high levels of stigmatization. The results, however, show that there is a significant interaction between parent stigma and sex, but that higher levels of stigmatization increase desistance for females more so than males. This relationship is illustrated in Figure 2.

FIGURE 2: INTERACTION BETWEEN PARENT STIGMATIZATION AND SEX FOR FULL OFFENDER SAMPLE



The coefficients for the interaction terms show the difference between the slopes of parent stigmatization on change in delinquency for males and females (Jaccard and Turrisi, 2003). Regressions using the other desistance measures (true desistance frequency and severity) do not reveal any significant interactions between parent stigmatization and gender.

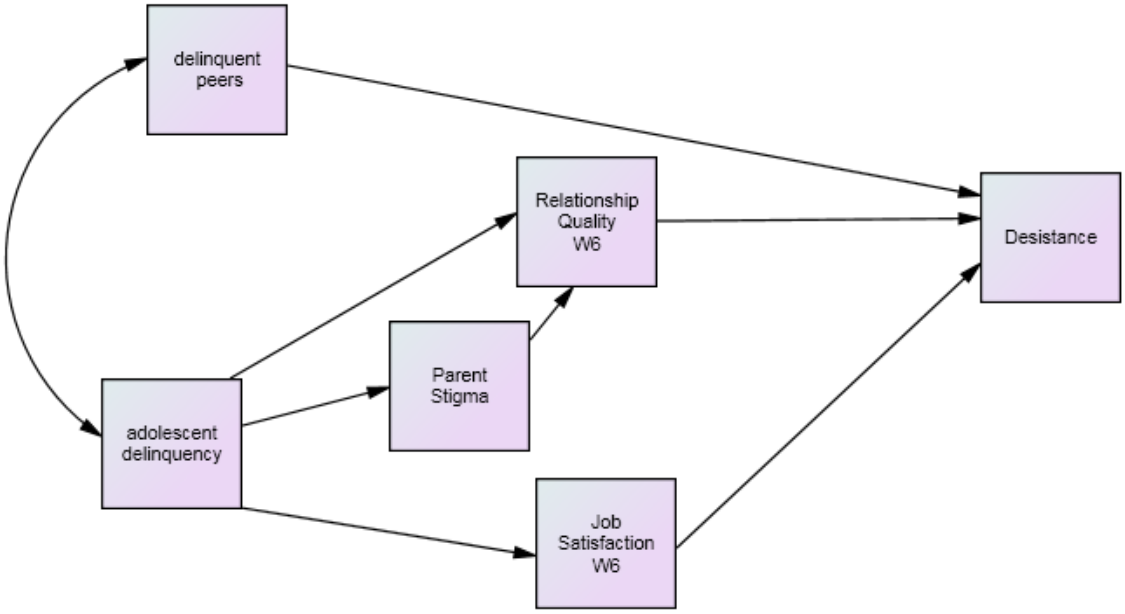
TABLE 7: REGRESSIONS FOR HYPOTHESIS 10 FULL SAMPLE

OLS REGRESSIONS				
DV: Desistance: Change in Frequency (n=1264)				
	B	SE	B	T
SEX	-190.036	45.619	-.620	-4.166**
Delinquent Peers	-6.082	1.084	-.189	-5.612**
Parent Stigma	-5.416	1.415	-.161	-3.827**
Delinquency in Adolescence: Frequency	-6.008	1.392	-.142	-4.317**
Interaction : parent stigma * sex	7.830	1.825	.628	4.290**
R^2 = .114				
DV: Desistance: Change in Severity (sqrt) (n=1257)				
	B	SE	B	T
SEX	7.268	1.702	.641	4.272**
Delinquent Peers	.211	.042	.177	5.033**
Parent Stigma	.235	.053	.188	4.420**
Delinquency in Adolescence: severity (ln)	.130	.046	.093	2.836**
Interaction : parent stigma * sex	-.295	.068	-.641	-4.314**
R^2 = .093				
BINARY LOGISTIC REGRESSIONS				
DV: True Desistance: Frequency (n=1092)				
	B	SE	Wald	Exp
SEX	.440	.729	.365	1.553
Delinquent Peers	-.064	.017	14.594	.938**
Parent Stigma	-.042	.021	3.907	.959*
Delinquency in Adolescence: Frequency	.021	.037	.343	1.022
Interaction : parent stigma * sex	.004	.029	.016	1.004
Model χ^2 = 63.051** -2LL = 1424.209 Nagelkerke R^2 = .075				
DV: True Desistance: Severity (n=1129)				
	B	SE	Wald	Exp
SEX	1.324	.741	3.196	3.759
Delinquent Peers	-.130	.019	45.903	.878**
Parent Stigma	.028	.023	1.422	1.028
Delinquency in Adolescence: severity (ln)	.071	.028	6.371	1.073*
Interaction : parent stigma * sex	-.025	.030	.689	.976
Model χ^2 = 96.474** -2LL = 1389.595 Nagelkerke R^2 = .112				
***** significant at the p < .05 level ** significant at the p < .01 level				

Hypothesis 11 tests the causal relationships between adolescent delinquency, stigmatization, social bonds, and desistance to determine if the desistance process is different for men and women. To find potential gender differences, a multigroup approach is taken using structural equation modeling. Specifically, path analyses are conducted with a basic causal model based upon the findings of the previous hypotheses to determine if parameters vary by gender. The basic causal model is illustrated in Figure

3. Prior to the hypothesis testing conducted in this study, it was anticipated that factors such as age, race and measures of social disorganization would be statistically relevant in the desistance process. However, through regression analyses and other statistical tests, it became apparent that these factors were statistically irrelevant. As such, they are excluded from the final model used herein. While theoretically it was believed that stigmatization would affect job satisfaction, earlier hypothesis testing rejected that hypothesis. Therefore, in the final model, there is no pathway between stigmatization and job satisfaction. Overwhelmingly, it was shown that bond quality was more influential in the desistance process than the mere presence of social bonds. In order to use a measure of bond quality that did not eliminate all participants without a specific bond from the analysis, participants with missing values for relationship quality and job satisfaction were recoded to have a value equivalent to the mean for that variable in their associated offender group. Also, as it was illustrated through earlier hypothesis testing that parent stigmatization was more influential than friend stigmatization, and due to the mulitcollinearity issues mentioned earlier between these two variables, only parent stigmatization is included in the final causal model. Gender differences are examined for this causal model using the various measures of delinquency, as well as the various measures of desistance.

FIGURE 3: FINAL CAUSAL MODEL FOR PATH ANALYSIS



Path analyses using the full sample of non offenders show that the identified causal model fit some measures of delinquency and desistance better than others. This is determined by examining the Chi-Square estimate for the model (which should be statistically significant) as well as other model fit indicies (RMSEA is reported, with values under .1 indicating a satisfactory model fit). Only one path analyses gave support for the hypothesized path between adolescent delinquency and desistance, specifically that adolescent delinquency effects stigmatization, which effects relationship quality, which then effects desistance. The model which supported this hypothsis was the female sample of offenders based on frequency of offending using the continuous, change measure of desistance. The model parameters for this model for men and women are provided in Table 8. For the path analysis using frequency of offending, it is shown that the hypothesized paths are significant and in the expected direction for females, but not for males, supporting hypothesis 11. However, this is the only path analysis which does

so. The other path analysis using frequency of offending with the true, dichotomous measure of desistance does not show support for the full hypothesized process. Instead, pathways between delinquency and stigmatization, and then between stigmatization and relationship quality are significant and in the expected direction for both men and women, but there is no significant pathway between relationship quality and desistance, breaking the hypothesized causal chain. Using the full sample of offenders, all path analyses have a significant chi-square statistic, a measure of good fit for the models. However, the variance measures for parent stigma, relationship quality, job satisfaction, and desistance are all highly significant, indicating that latent (unobserved) variables absent from the current model have a significant role in the desistance process. Ultimately, using the two measures of delinquency yeilds entirely different results. Using frequency of offending, as mentioned above, there is at least some evidence (using change in delinquency as the dependent variable) that the pathway to desistance is different for men and women (as relationship quality is a significant predictor of desistance for females but not for males). Using severity of offending, the hypothesized causal model is not supported for men or women, and the only pathway difference found between men and women is in the model using the true measure of desistance, where job satisfaction is a signicant predictor of desistance for women but not for men. Using the true desistance measure, results show that stigmatization plays a significant role in the formation of quality relationships for women (not men), but relationship quality is not significantly related to desistance. Consistently in the models, delinquent peer exposure in adolescence is significantly related to desistance.

TABLE 8: ESTIMATES FOR PATH ANALYSIS (FREQUENCY)

Desistance Measure (DV): Change in offending (frequency) Model Chi-Square: 257.471, df= 14, $p < .001$

RMSEA: .093			
Male Model			
Path	Estimate	S.E.	Critical Ratio
Adolescent delinquency ←→ Delinquent peers	4.091	.322	12.709**
Adolescent delinquency → parent stigmatization	1.003	.099	10.153**
Adolescent delinquency → Job satisfaction	-.021	.023	-.936
Adolescent delinquency → Relationship quality	-.285	.055	-5.192**
Parent stigmatization → Relationship quality	-.042	.020	-2.121
Relationship quality → Desistance	4.355	2.608	1.670
Job satisfaction → Desistance	.903	6.001	.151
Delinquent peers → Desistance	-5.577	1.167	-4.777**
Female Model			
Path	Estimate	S.E.	Critical Ratio
Adolescent delinquency ←→ Delinquent peers	3.206	.309	10.379**
Adolescent delinquency → parent stigmatization	1.166	.136	8.568**
Adolescent delinquency → Job satisfaction	-.034	.034	-1.005
Adolescent delinquency → Relationship quality	-.411	.135	-3.050**
Parent stigmatization → Relationship quality	-.141	.041	-3.440**
Relationship quality → Desistance	-2.434	1.019	-2.389*
Job satisfaction → Desistance	-2.254	3.910	-.577
Delinquent peers → Desistance	-6.197	.972	-6.375**
* significant at the $p < .05$ level ** significant at the $p < .01$ level			

Using the full sample of offenders, based upon the results testing for hypotheses 1-11, there is support for hypothesis 12 which states that results will vary based upon the measure of delinquency used. Differences were consistantly found throughout the current student based on the measure of delinquency being used, whether it be frequency or severity.

7.3. ANALYSIS OF SUBPOPULATIONS GROUPED BY FREQUENCY

The analyses to test the aforementioned hypotheses are performed six additional times in order to compare offenders based on similar offending behavior, as well as to compare any potential differences in findings based solely on the way in which delinquency is measured. This first section focuses on measuring delinquency and desistance by examining offending frequency, followed by offending severity in section 7.4.

7.3.1. Grouped by Frequency – Low Rate Offenders

Low rate offenders, when measured by offending frequency, are defined in this study as offenders whose highest frequency of offending in a single year between wave 1 and wave 5 was between 1 and 36. This subpopulation contains 350 male offenders and 381 female offenders.

Hypotheses 1-3 examined mean differences for the following variables: *Stigmatization: Parents 1*, *Stigmatization: Friends 1*, *Quality of Relationship 6*, *Quality of Relationship 7*, *Job Satisfaction 6*, and *Job Satisfaction 7*. Hypothesis 1 states that females who engage in adolescent criminal behavior will experience more stigmatization than males with similar offending behavior. Results of the independent samples T-Tests show that males and females in this offending category do not significantly differ on parental stigma during adolescence ($t=1.281$, $df=728.681$, $p>.05$, equal variance not assumed). Results show that males and females do differ significantly on friends stigma during adolescence ($t=2.899$, $df=728.975$, $p<.05$, equal variance not assumed). However, the direction of the relationship is not in the expected direction. Males have a higher mean than women for friend stigma (Males: 22.31, Females: 21.52) The results of this analysis indicate a rejection of hypothesis 1 for low rate offenders grouped by frequency of offending.

For hypothesis 2, which states that females will have lower quality relationships than males with similar offending behavior, independent samples T-Tests are conducted on the following variables: *Quality of Relationship 6*, and *Quality of Relationship 7*. The results show that males and females do not differ significantly on relationship quality at

wave 6 (t=1.619, df=209, p>.05, equal variance assumed) nor do they significantly differ on relationship quality at wave 7 (t=.240, df=327, p>.05, equal variance assumed). As the T-Tests for relationship quality do not reveal any significant difference between males and females, hypothesis 2 is rejected for low rate offenders grouped by frequency of offending.

Hypothesis 3 states that females will have less satisfying jobs than males with similar offending behavior. For this hypothesis, independent samples T-Tests are conducted on the following variables: *Job Satisfaction 6* and *Job Satisfaction 7*. The results show that women report significantly lower job satisfaction at wave 6 (Males: 4.02, Females: 3.80; t=2.598, df=592.288, p<.05, equal variance not assumed) but not at wave 7 (t=1.529, df=597, p>.05, equal variance assumed). These results give partial support for hypothesis 3.

To further examine the relationship between gender and the variables of interest in hypotheses 1, 2, and 3, OLS Regressions are utilized for the relationships that were found to be significant using the independent samples T-Tests. Controlling for other factors (age, race, association with deviant peers, neighborhood conditions, as well as adolescent delinquency), results show that gender is still significant in the opposite expected direction for friend stigmatization in adolescence. Controlling for the same factors, results show that being a women significantly decreases job satisfaction at wave 6 by .216, upholding the results from the earlier T-Test and once again providing partial support for hypothesis 3.

Hypothesis 4 states that bond quality is significantly related to stigmatization. As the measures for bond quality (relationship quality and job satisfaction) as well as

stigmatization (parent and friend) are all continuous variables, Pearson's Correlations are used to assess this relationship, as well as relationships for other hypotheses, and are reported in Table 9. Pearson's Correlations show that *Relationship Quality 6* is significantly related both measures of stigmatization (*Parent1:* r=-.252, p<.01; *Friend 1:* r=-.253, p<.01). For these measures of stigmatization, the relationship is in the expected direction, with higher levels of stigmatization resulting in lower quality relationships. However, the Pearson's Correlation statistic suggests the relationship between stigma and relationship quality at wave 6 is weak (r < .30). The Pearson's Correlations also show a significant, though weak, negative relationship between *Stigmatization: Friend 1* and *Relationship Quality 7* (r=-.126, p<.05).

In examining hypothesis 5, which looks at the relationship between the presence of bonds and desistance, Pearson's Correlations using change measures for desistance do not reveal any significant relationships. Chi-Square tests are used to examine the relationship between the measure of true desistance and presence of job bonds or relationship bonds at waves 6 and 7, as all of the named variables are at the nominal level. Results of the Chi-Square tests also show no significant relationships between the dichotomous measure of desistance, and the presence of social bonds. Hypothesis 5 is rejected for low rate offenders based on frequency of offending.

Hypothesis 6 focuses on the relationship between measures of desistance and bond quality. Results of the Pearson's Correlations show only one significant relationship: that of job satisfaction at wave 7 and true desistance (r=.167, p<.01). This relationship is weak, but in the expected direction, with higher job satisfaction at wave 7

being related to a higher likelihood of desistance. The results of these correlations give partial support for hypothesis 6.

For this group of offenders, it appears as if hypothesis 7 is supported, as there are no significant relationships between the presence of social bonds and desistance, but there is at least one significant relationship between the quality of social bonds and desistance.

The results of the Pearson's correlations used to test hypothesis 8 for this group of offenders show stigmatization is not significantly related to desistance. Additionally, for low rate offenders based on frequency of offending, the results of the independent samples T-Tests used to test hypothesis 9, which focuses on the relationship between gender and desistance, show no significant differences in the average change in frequency of offending ($t=.026$, $df=649$, $p>.05$, equal variance assumed). For the dichotomous desistance measures, Chi-Square tests are used. Results show that females are significantly more likely to desist from crime than males ($\chi^2=8.605$, $df=1$, $p<.01$, Cramer's $V=.115$). Overall, for this offender group, hypothesis 8 and hypothesis 9 are rejected.

TABLE 9: PEARSON'S CORRELATIONS FOR H4-H6
LOW RATE OFFENDERS: FREQUENCY

Hypothesis 4	Stigmatization: Parent 1	Stigmatization: Friend 1		
Job Satisfaction W6	-.022	-.013		
Job Satisfaction W7	-.037	-.024		
Relationship Quality W6	-.252**	-.253**		
Relationship Quality W7	-.075	-.126*		
Hypothesis 5	Job Bond 6	Job Bond 7	Relationship Bond 6	Relationship Bond 7
Desistance: Change Frequency	.031	-.007	-.001	.023
Hypothesis 6	Job Satisfaction W6	Job Satisfaction W7	Relationship Quality W6	Relationship Quality W7
Desistance: Change Frequency	-.073	-.062	.027	-.004
True Desistance: Frequency	.010	.167**	-.060	.000

HYPOTHESIS 8	Stigmatization: Parent 1	Stigmatization: Friend 1		
Desistance: Change Frequency	.010	.018		
True Desistance: Frequency	-.052	-.052		

***** Correlation is significant at the p < .05 level
** Correlation is significant at the p < .01 level

Hypothesis 10 tests the relationship between stigmatization and sex in desistance to determine if there is an interaction effect between these two variables. A significant interaction effect for a variable XZ on Y indicates that the relationship between X and Y changes depending upon the value of Z. OLS and Binary Logistic regressions using the dependant variables *Desistance: Change in Frequency* and *True Desistance: Frequency* do not reveal any significant interactions between parent stigmatization and gender.

TABLE 10: REGRESSIONS FOR HYPOTHESIS 10
LOW RATE OFFENDERS: FREQUENCY

OLS Regression				
DV: Desistance: Change in Frequency (n=650)				
	B	SE	β	t
SEX	-11.456	21.669	-.124	-.529
Delinquent Peers	.353	.574	.026	.615
Parent Stigma	-.100	.681	-.009	-.147
Delinquency in Adolescence: Frequency	-2.851	2.528	-.048	-1.128
Interaction : parent stigma * sex	.457	.895	.121	.510
R^2 = .051				
***** Correlation is significant at the p < .05 level ** Correlation is significant at the p < .01 level				
Binary Logistic Regression				
DV: True Desistance: Frequency (n=650)				
	B	SE	Wald	Exp
SEX	.656	1.038	.399	1.927
Delinquent Peers	-.033	.027	1.478	.968
Parent Stigma	.000	.031	.000	1.000
Delinquency in Adolescence: frequency	-.352	.123	8.193	.703**
Interaction : parent stigma * sex	-.009	.043	.041	.991
Model χ^2 = 23.178** -2LL = 779.971 Nagelkerke R^2 = .049				
***** significant at the p < .05 level ** significant at the p < .01 level				

In examining hypothesis 11 which focuses on the causal pathway between delinquency and desistance, accounting for the role of stigmatization and social bonds,

two path analyses are conducted for this group of offenders. One model uses the change measure for desistance as the dependent variable, while the other uses the dichotomous true measure of desistance. Both models are significant with chi-square values and RMSEA estimates indicating a satisfactory fit for the models. For the model predicting change in delinquency, there are no significant pathways for males between stigmatization and relationship quality or between relationship quality and desistance. The female group shows significant pathways between stigmatization and relationship quality, but not between relationship quality and desistance. Both groups show a significant relationship between adolescent delinquency and stigmatization. Exploring the model that uses the true measure of desistance, males and females both show a significant pathway between adolescent delinquency and stigmatization. Then, males have a significant pathway between relationship quality and desistance, whereas females have a significant pathway between parent stigmatization and relationship quality, as well as delinquent peer exposure and desistance. Variance estimates are all highly significant, indicating that latent (unobserved) variables not present in the model are responsible for a significant amount of variation for parental stigmatization, relationship quality, job satisfaction, and desistance. Results of these path analyses give partial support for hypothesis 11. Specific model estimates can be found in Appendix 1.

7.3.2. Grouped by Frequency- Mid Rate Offenders

Mid rate offenders, when measured by offending frequency, are defined in this study as offenders whose highest frequency of offending in a single year between wave 1

and wave 5 was between 37 and 126. This subpopulation contains 180 male offenders and 79 female offenders.

Hypotheses 1-3 examined mean differences for the following variables: *Stigmatization: Parents 1*, *Stigmatization: Friends 1*, *Quality of Relationship 6*, *Quality of Relationship 7*, *Job Satisfaction 6*, and *Job Satisfaction 7*. Hypothesis 1 states that females who engage in adolescent criminal behavior will experience more stigmatization than males with similar offending behavior. Results of the independent samples T-Tests show that males and females in this offending category do not significantly differ on any of the stigmatization variables (*Stigmatization: Parents 1:* t=-.483, df=257, p>.05, equal variance assumed; *Stigmatization: Friends 1:* t=1.390, df=119.595, p>.05, equal variance not assumed). The results of this analysis indicate a rejection of hypothesis 1 for mid rate offenders grouped by frequency of offending.

For hypothesis 2, which states that females will have lower quality relationships than males with similar offending behavior, independent samples T-Tests are conducted on the following variables: *Quality of Relationship 6,* and *Quality of Relationship 7*. The results show that males and females do not differ significantly on relationship quality at wave 6 (t=1.19, df=49.007, p>.05, equal variance not assumed) nor do they significantly differ on relationship quality at wave 7 (t=1.889, df=68.282, p>.05, equal variance not assumed). As the T-Tests for relationship quality do not reveal any significant difference between males and females, hypothesis 2 is rejected for mid rate offenders grouped by frequency of offending.

Hypothesis 3 states that females will have less satisfying jobs than males with similar offending behavior. For this hypothesis, independent samples T-Tests are

conducted on the following variables: *Job Satisfaction 6* and *Job Satisfaction 7*. The results show that women report significantly lower job satisfaction at wave 7 (Males: 4.03, Females: 3.58; t=2.880, df=196, p<.05, equal variance assumed) but not at wave 6 (t=1.925, df=219, p>.05, equal variance assumed), the opposite of what was found for low rate offenders. These results give partial support for hypothesis 3.

To further examine the relationship between gender and the variables of interest in hypotheses 1, 2, and 3, OLS Regressions are utilized for the relationships that were found to be significant using the independent samples T-Tests. Controlling for other factors (age, race, association with deviant peers, neighborhood conditions, as well as adolescent delinquency) results show that being a women significantly decreases job satisfaction at wave 7 by .499, upholding the results from the earlier T-Test and once again providing partial support for hypothesis 3.

Hypothesis 4 states that bond quality is significantly related to stigmatization. As the measures for bond quality (relationship quality and job satisfaction) as well as stigmatization (parent and friend) are all continuous variables, Pearson's Correlations are used to assess this relationship, as well as relationships for other hypotheses, and are reported in Table 11. The results show that there are no significant relationships between stigmatization and bond quality for this offender subgroup. Therefore, for mid rate offenders based on offending frequency, hypothesis 4 is rejected.

In examining hypothesis 5, which looks at the relationship between the presence of bonds and desistance, Pearson's Correlations using change measures for desistance do not reveal any significant relationships. Chi-Square tests are used to examine the relationship between the measure of true desistance and presence of job bonds or

relationship bonds at waves 6 and 7, as all of the named variables are at the nominal level. Results of the Chi-Square tests show no significant relationships between the variables. Considering the results of the Chi-Square tests and Pearson's Correlations, hypothesis 5 is rejected for mid rate offenders grouped by frequency of offending.

Hypothesis 6 focuses on the relationship between measures of desistance and bond quality. Results of the Pearson's Correlations show only one significant relationship. A significant, negative, weak relationship is found between job satisfaction at wave 7 and the continuous change measure of desistance ($r=-.163$, $p<.05$). This relationship is in the expected direction, indicating that higher job satisfaction at wave 7 is related to a larger decrease in criminal behavior (desistance). The results of these correlations give partial support for hypothesis 6.

For this group of offenders, it appears as if hypothesis 7 is supported, as there are no significant relationships between the presence of social bonds and desistance, but there is at least one significant relationship between the quality of social bonds and desistance.

The results of the Pearson's correlations used to test hypothesis 8 for this group of offenders show friend stigmatization is significantly related to desistance when measured by change in offending ($r=.149$, $p<.05$). The correlation reveals a positive, weak relationship between the two variables that is in the expected direction (higher stigmatization results in a lesser decrease in offending). The relationship between parent stigmatization in adolescence and desistance is not significant for this offender group. Additionally, for mid rate offenders based on frequency of offending, the results of the independent samples T-Tests used to test hypothesis 9, which focuses on the relationship

between gender and desistance, show no significant differences in the average change in frequency of offending (t=-.768, df=89.328, p>.05, equal variance not assumed). For the dichotomous desistance measures, Chi-Square tests are used. Results show that females are significantly more likely to desist from crime than males (χ^2=6.294, df=1, p<.05, Cramer's V=.167). Overall, for this offender group, hypothesis 8 is partially supported while hypothesis 9 is rejected.

TABLE 11: PEARSON'S CORRELATIONS FOR H4-H6
MID RATE OFFENDERS: FREQUENCY

Hypothesis 4	Stigmatization: Parent 1	Stigmatization: Friend 1		
Job Satisfaction W6	.068	.052		
Job Satisfaction W7	-.055	-.061		
Relationship Quality W6	.095	-.202		
Relationship Quality W7	.041	-.101		
Hypothesis 5	Job Bond 6	Job Bond 7	Relationship Bond 6	Relationship Bond 7
Desistance: Change Frequency	.056	-.043	.125	.068
Hypothesis 6	Job Satisfaction W6	Job Satisfaction W7	Relationship Quality W6	Relationship Quality W7
Desistance: Change Frequency	-.045	-.163**	-.217	-.100
True Desistance: Frequency	.020	.041	.171	.105
HYPOTHESIS 8	Stigmatization: Parent 1	Stigmatization: Friend 1		
Desistance: Change Frequency	.149*	.055		
True Desistance: Frequency	-.086	-.097		

***** Correlation is significant at the p < .05 level
** Correlation is significant at the p < .01 level

Hypothesis 10 tests the relationship between stigmatization and sex in desistance to determine if there is an interaction effect between these two variables. A significant interaction effect for a variable XZ on Y indicates that the relationship between X and Y changes depending upon the value of Z. OLS and Binary Logistic regressions using the dependant variables Desistance: Change in Frequency and True Desistance: Frequency do not reveal any significant interactions between parent stigmatization and gender, though for the change in offending measure of desistance, higher levels of parent

stigmatization are significantly related to lower levels of desistance. This relationship is opposite of that found using the full sample of offenders.

TABLE 12: REGRESSIONS FOR HYPOTHESIS 10
MID RATE OFFENDERS: FREQUENCY

OLS Regression				
DV: Desistance: Change in Frequency (n=227)				
	B	SE	β	t
SEX	131.015	84.675	.618	1.547
Delinquent Peers	-2.464	1.679	-.107	-1.467
Parent Stigma	6.481	2.213	.266	2.929**
Delinquency in Adolescence: Frequency	5.484	17.754	.021	.309
Interaction : parent stigma * sex	-4.769	3.247	-.595	-1.469
R^2 = .044				
***** Correlation is significant at the p < .05 level ** Correlation is significant at the p < .01 level				
Binary Logistic Regression				
DV: True Desistance: Frequency (n=227)				
	B	SE	Wald	Exp
SEX	1.752	1.843	.904	5.769
Delinquent Peers	.087	.037	5.498	1.090*
Parent Stigma	-.059	.047	1.561	.942
Delinquency in Adolescence: Frequency	-1.354	.405	11.195	.258**
Interaction : parent stigma * sex	-.030	.070	.178	.971
Model χ^2 = 23.339** -2LL = 291.240 Nagelkerke R^2 = .130				
***** significant at the p < .05 level ** significant at the p < .01 level				

In examining hypothesis 11, which focuses on the causal pathway between delinquency and desistance, accounting for the role of stigmatization and social bonds, two path analyses are conducted for this group of offenders. One model uses the change measure for desistance as the dependent variable, while the other uses the dichotomous true measure of desistance. Both models are have significant chi-square values, though the RMSEA estimates are over .1 for both models, indicating less than satisfactory model fit. For the model predicting change in delinquency, there are no significant pathways for males between stigmatization and relationship quality or between relationship quality and desistance. The female group shows a significant pathway

between relationship quality and desistance, but not between stigmatization and relationship quality. Both groups show a significant relationship between adolescent delinquency and delinquent peer exposure. Exploring the model that uses the true measure of desistance, males show a significant relationship between adolescent delinquency and delinquent peer exposure. Females have no significant pathways in this model. Variance estimates are all highly significant, indicating that latent (unobserved) variables not present in the model are responsible for a significant amount of variation for parental stigmatization, relationship quality, job satisfaction, and desistance. Results of these path analyses give partial support for hypothesis 11. Specific model estimates can be found in Appendix 1.

7.3.3. Grouped by Frequency- High Rate Offenders

High rate offenders, when measured by offending frequency, are defined in this study as offenders whose highest frequency of offending in a single year between wave 1 and wave 5 was between 127 and 2595. This subpopulation contains 155 male offenders and 52 female offenders.

The first step to test hypotheses 1, 2, and 3 is to run T-Tests to determine if there are any mean differences between males and females in social bonds. Hypotheses 1-3 examined mean differences for the following variables: *Stigmatization: Parents 1*, *Stigmatization: Friends 1*, *Quality of Relationship 6*, *Quality of Relationship 7*, *Job Satisfaction 6*, and *Job Satisfaction 7*. Hypothesis 1 states that females who engage in adolescent criminal behavior will experience more stigmatization than males with similar offending behavior. Results of the independent samples T-Tests show that males and

females in this offending category do not significantly differ on any of the stigmatization variables (*Stigmatization: Parents 1:* t=-.730, df=205, p>.05, equal variance assumed; *Stigmatization: Friends 1:* t=.843, df=75.054, p>.05, equal variance not assumed). The results of this analysis indicate a rejection of hypothesis 1 for high rate offenders grouped by frequency of offending.

For hypothesis 2, which states that females will have lower quality relationships than males with similar offending behavior, independent samples T-Tests are conducted on the following variables: *Quality of Relationship 6*, and *Quality of Relationship 7*. The results show that males and females do not differ significantly on relationship quality at wave 7 (t=1.356, df=31.944, p>.05, equal variance not assumed), but they do significantly differ on relationship quality at wave 6 (Males: 37.304, Females: 34.200; t=2.028, df=69, p<.05, equal variance assumed). The mean differences are in the expected direction for relationship quality at wave 6, with males reporting higher quality relationships than females. Considering the results of the independent samples T-Tests, hypothesis 2 has partial support for high rate offenders grouped by frequency of offending.

Hypothesis 3 states that females will have less satisfying jobs than males with similar offending behavior. For this hypothesis, independent samples T-Tests are conducted on the following variables: *Job Satisfaction 6* and *Job Satisfaction 7*. The results show that women report significantly lower job satisfaction at wave 6 (Males: 4.02, Females: 3.52; t=2.388, df=58.887, p<.05, equal variance not assumed) but not at wave 7 (t=1.72, df=47.061, p>.05, equal variance not assumed). These results give partial

support for hypothesis 3. Notably, the mean difference between males and females for job satisfaction at wave 6 is larger for high rate offenders than for mid rate offenders.

To further examine the relationship between gender and the variables of interest in hypotheses 1, 2, and 3, OLS Regressions are utilized for the relationships that were found to be significant using the independent samples T-Tests. Controlling for other factors (age, race, association with deviant peers, neighborhood conditions, as well as adolescent delinquency), results show that gender is still significant and negatively related to job satisfaction at wave 6. Controlling for the same factors, results show that being a woman significantly decreases job satisfaction at wave 6 by .421, upholding the results from the earlier T-Test and once again providing partial support for hypothesis 3. Looking at relationship quality at wave 6, and controlling for other factors, the OLS Regression shows that gender is still significantly related to relationship quality at wave 6 is the expected direction (negative). Results show that being a woman significantly reduces reported relationship quality at wave 6 by 2.784.

Hypothesis 4 states that bond quality is significantly related to stigmatization. As the measures for bond quality (relationship quality and job satisfaction) as well as stigmatization (parent and friend) are all continuous variables, Pearson's Correlations are used to assess this relationship, as well as relationships for other hypotheses, and are reported in Table 13. Pearson's Correlations show that *Relationship Quality 6* is significantly related to parent stigmatization, but not friend stigmatization (*Parent1:* $r=-.243$, $p<.05$). For parent stigmatization, the relationship is in the expected direction, with higher levels of stigmatization resulting in lower quality relationships. However, the Pearson's Correlation statistic for this relationship suggests it is weak

($r < .30$). For high rate offenders based on frequency of offending, there does not appear to be a relationship between stigmatization and job satisfaction. The results of these correlations give partial support for hypothesis 4.

In examining hypothesis 5, which looks at the relationship between the presence of bonds and desistance, Pearson's Correlations using change measures for desistance do not reveal any significant relationships. Chi-Square tests are used to examine the relationship between the measures of true desistance and presence of job bonds or relationship bonds at waves 6 and 7, as all of the named variables are at the nominal level. Results of the Chi-Square tests show no significant relationships between the variables. Considering the results of the Chi-Square tests and Pearson's Correlations, hypothesis 5 is rejected for high rate offenders grouped by frequency of offending.

Hypothesis 6 focuses on the relationship between measures of desistance and bond quality. Results of the Pearson's Correlations show significant relationships true desistance and three measures of bond quality: job satisfaction at wave 7, relationship quality at wave 6, and relationship quality at wave 7. The relationships are all positive, but weak, and are in the expected direction (Job satisfaction 7: $r=.157$, $p<.01$; Relationship quality wave 6: $r=.274$, $p<.01$; Relationship quality wave 7: $r=.215$, $p<.01$), showing that as quality of bonds increases, the likelihood of desistance also increases. The results of these correlations give partial support for hypothesis 6.

For this group of offenders, it appears as if hypothesis 7 is supported, as there are no significant relationships between the presence of social bonds and desistance, but there is at least one significant relationship between the quality of social bonds and desistance.

The results of the Pearson's correlations used to test hypothesis 8 for this group of offenders show stigmatization is significantly related to the dichotomous measure of desistance, but not the continuous change measure for desistance. The relationships between parent stigmatization and desistance, as well as friend stigmatization and desistance are in the negative direction, which is expected, though both relationships are weak (parent: $r=-.188$, $p<.05$; friend: $r=-.209$, $p<.01$). These results show that higher levels of stigmatization result in lower levels of desistance. Additionally, for high rate offenders based on frequency of offending, the results of the independent samples T-Tests used to test hypothesis 9, which focuses on the relationship between gender and desistance, show no significant differences in the average change in frequency of offending ($t=.758$, $df=179$, $p>.05$, equal variance assumed). For the dichotomous desistance measures, Chi-Square tests are used. Unlike the results for the low rate and mid rate offender groups, the results show that there are no significant differences in the likelihood of desistance for males and females ($\chi^2=.02$, $df=1$, $p>.05$). Overall, for this offender group, hypothesis 8 is partially supported while hypothesis 9 is rejected.

TABLE 13: PEARSON'S CORRELATIONS FOR H4-H6
HIGH RATE OFFENDERS: FREQUENCY

Hypothesis 4	Stigmatization: Parent 1	Stigmatization: Friend 1		
Job Satisfaction W6	-.065	.048		
Job Satisfaction W7	-.101	-.069		
Relationship Quality W6	-.243*	-.119		
Relationship Quality W7	-.087	-.001		
Hypothesis 5	Job Bond 6	Job Bond 7	Relationship Bond 6	Relationship Bond 7
Desistance: Change Frequency	.079	.044	-.028	.038
Hypothesis 6	Job Satisfaction W6	Job Satisfaction W7	Relationship Quality W6	Relationship Quality W7
Desistance: Change Frequency	.081	-.033	-.085	.035
True Desistance: Frequency	-.031	.157**	.274**	.215**
HYPOTHESIS 8	Stigmatization: Parent 1	Stigmatization: Friend 1		
Desistance: Change Frequency	.021	.057		
True Desistance: Frequency	-.188*	-.209**		

***** Correlation is significant at the $p < .05$ level

** Correlation is significant at the p < .01 level

Hypothesis 10 tests the relationship between stigmatization and sex in desistance to determine if there is an interaction effect between these two variables. A significant interaction effect for a variable XZ on Y indicates that the relationship between X and Y changes depending upon the value of Z. OLS and Binary Logistic regressions using the dependant variables Desistance: Change in Frequency and True Desistance: Frequency do not reveal any significant interactions between parent stigmatization and gender, though for the change measure of desistance, higher levels of parent stigmatization are significantly related to lower levels of desistance. This relationship is opposite of that found using the full sample of offenders.

TABLE 14: REGRESSIONS FOR HYPOTHESIS 10
HIGH RATE OFFENDERS: FREQUENCY

OLS Regression				
DV: Desistance: Change in Frequency (n=181)				
	B	SE	β	t
SEX	130.956	172.501	.255	.759
Delinquent Peers	-6.792	3.039	-.158	-2.235*****
Parent Stigma	10.632	3.979	.226	2.672******
Delinquency in Adolescence: Frequency	-161.888	17.465	-.576	-9.269******
Interaction : parent stigma * sex	-5.463	6.079	-.307	-.899
R^2 = .365				
***** Correlation is significant at the p < .05 level ** Correlation is significant at the p < .01 level				
Binary Logistic Regression				
DV: True Desistance: Frequency (n=181)				
	B	SE	Wald	Exp
SEX	-.399	2.004	.040	.671
Delinquent Peers	-.051	.035	2.080	.950
Parent Stigma	-.063	.047	1.826	.939
Delinquency in Adolescence: Frequency (ln)	-.001	.202	.000	.999
Interaction : parent stigma * sex	.016	.072	.050	1.016
Model χ^2 = 8.826 -2LL = 230.787 Nagelkerke R^2 = .065				
***** significant at the p < .05 level ** significant at the p < .01 level				

In examining hypothesis 11 which focuses on the causal pathway between delinquency and desistance, accounting for the role of stigmatization and social bonds, two path analyses are conducted for this group of offenders. One model uses the change measure for desistance as the dependent variable, while the other uses the dichotomous true measure of desistance. Both models are significant as indicated by their chi-square values, but RMSEA estimates indicating unsatisfactory fit for the models. Neither males nor females in either model show support for the hypothesized causal pathway. For both models, females have a significant relationship between relationship quality and desistance. This relationship is not present for male offenders. Variance estimates are all highly significant, indicating that latent (unobserved) variables not present in the model are responsible for a significant amount of variation for parental stigmatization, relationship quality, job satisfaction, and desistance. Differences between males and females in these path analyses give partial support for hypothesis 11. Specific model estimates can be found in Appendix 1.

7.4. ANALYSIS OF SUBPOPULATIONS GROUPED BY SEVERITY

7.4.1. Grouped by Severity – Low Rate Offenders

Low rate offenders, when measured by offending severity, are defined in this study as offenders whose highest severity of offending in a single year between wave 1 and wave 5 was between 1 and 62.2. This subpopulation contains 363 male offenders and 410 female offenders.

Hypotheses 1-3 examined mean differences for the following variables: *Stigmatization: Parents 1, Stigmatization: Friends 1, Quality of Relationship 6, Quality*

of Relationship 7, *Job Satisfaction 6*, and *Job Satisfaction 7*. Hypothesis 1 states that females who engage in adolescent criminal behavior will experience more stigmatization than males with similar offending behavior. Results of the independent samples T-Tests show that males and females in this offending category significantly differ on the measures of stigmatization, though the relationships are not in the expected direction. For parental stigmatization in adolescence ($t=3.136$, $df=769.868$, $p<.05$, equal variance not assumed), males have higher scores than females (Males: 24.26, Females: 23.32). Males also score significantly higher on friend stigmatization in adolescence (Males: 22.54, Females 21.21; $t=4.948$, $df=771$, $p<.05$, equal variance not assumed). The results of this analysis indicate a rejection of hypothesis 1 for low rate offenders grouped by severity of offending.

For hypothesis 2, which states that females will have lower quality relationships than males with similar offending behavior, independent samples T-Tests are conducted on the following variables: *Quality of Relationship 6,* and *Quality of Relationship 7*. The results show that males and females do not differ significantly on relationship quality at wave 6 ($t=.792$, $df=209$, $p>.05$, equal variance assumed), or wave 7 ($t=-.04$, $df=345$, $p>.05$, equal variance assumed). Hypothesis 2 is rejected for low rate offenders based on offending severity.

Hypothesis 3 states that females will have less satisfying jobs than males with similar offending behavior. For this hypothesis, independent samples T-Tests are conducted on the following variables: *Job Satisfaction 6* and *Job Satisfaction 7*. The results show that women report significantly lower job satisfaction at wave 6 (Males: 4.07, Females: 3.78; $t=3.489$, $df=629.542$, $p<.05$, equal variance not assumed) and wave

7 (Males: 4.08, Females: 3.91; t=2.073, df=624, p<.05, equal variance assumed). The mean differences are in the expected direct and give support for hypothesis 3.

To further examine the relationship between gender and the variables of interest in hypotheses 1, 2, and 3, OLS Regressions are utilized for the relationships that were found to be significant using the independent samples T-Tests. Controlling for other factors (age, race, association with deviant peers, neighborhood conditions, as well as adolescent delinquency), results show that gender is still significant in the opposite direction for the stigmatization measures, again indicating that hypothesis 1 should be rejected for this group of offenders. Controlling for the same factors, results show that being a women significantly decreases job satisfaction at wave 6 by .315, as well as job satisfaction at wave 7 by .186, providing support for hypothesis 3.

Hypothesis 4 states that bond quality is significantly related to stigmatization. As the measures for bond quality (relationship quality and job satisfaction) as well as stigmatization (parent and friend) are all continuous variables, Pearson's Correlations are used to assess this relationship, as well as relationships for other hypotheses, and are reported in Table 15. Pearson's Correlations show that *Relationship Quality 6* is significantly related to the measures of stigmatization (*Parent1:* r=-.172, p<.05; *Friend 1:* r=-.167, p<.05). For these measures of stigmatization, the relationship is in the expected direction, with higher levels of stigmatization resulting in lower quality relationships. However, the Pearson's Correlation statistics these relationships suggest the relationship between stigma and relationship quality at wave 6 is weak (r < .30). Pearson's Correlations show that *Relationship Quality 7* is also significantly related parent and friend stigmatization (*Parent1:* r=-.121, p<.05; *Friend 1:* r=-.164, p<.01). Again, for

these measures of stigmatization, the relationship is in the expected direction, with higher levels of stigmatization resulting in lower quality relationships. However, the Pearson's Correlation statistics for the relationships between stigma and relationship quality at wave 7 are weak ($r < .30$). The Pearson's Correlations do not show any relationship between stigmatization and job satisfaction. The correlations provide partial support for hypothesis 4.

In examining hypothesis 5, which looks at the relationship between the presence of bonds and desistance, Pearson's Correlations using change measures for desistance do not reveal any significant relationships. Chi-Square tests are used to examine the relationship between the measure of true desistance and presence of job bonds or relationship bonds at waves 6 and 7, as all of the named variables are at the nominal level. Results of the Chi-Square tests show several significant relationships. *True Desistance: Severity* and job bond at wave 7 are significantly related ($\chi^2=9.218$, df=1, $p<.01$; Cramer's V=.116), showing that the presence of a job bond results in a higher likelihood of desistance. Desistance is also significantly related to relationship bond at wave 6($\chi^2=24.269$, df=1, $p<.01$; Cramer's V=.190), and relationship bond at wave 7($\chi^2=19.498$, df=1, $p<.01$; Cramer's V=.168). The relationships between these variables are weak, as indicated by the Cramer's V scores, but in the expected direction. These results give partial support for hypothesis 5.

Hypothesis 6 focuses on the relationship between measures of desistance and bond quality. Results of the Pearson's Correlations show significant relationships between job satisfaction at wave 7 and true desistance ($r=.099$, $p<.05$). This relationship is weak, but in the expected direction. Relationship quality at wave 7 is also significantly

related to true desistance: severity (r=.138, p<.01). Again, this relationship is weak, but in the expected direction, with higher quality bonds related to a higher likelihood of desistance. When looking at the desistance change variable, there are no significant relationships with the bond quality variables. The results of these correlations give partial support for hypothesis 6 for low rate offenders grouped by severity of offending.

For this group of offenders, it appears as if hypothesis 7 is rejected, as the strength of the relationships between desistance and relationship bonds (Chi-Square tests) are stronger than those between desistance and the relationship quality variables (comparing Cramer's V scores to Pearson's Correlations).

The results of the Pearson's correlations used to test hypothesis 8 for this group of offenders show stigmatization is not significantly related to desistance, which is identical to the results for the low rate offenders based on severity of offending. Additionally, for this group (low rate offenders based on severity of offending), the results of the independent samples T-Tests used to test hypothesis 9, which focuses on the relationship between gender and desistance, show no significant differences in the average change in severity of offending (t=.-1.867, df=489.93, p>.05, equal variance not assumed). For the dichotomous desistance measures, Chi-Square tests are used. Results show that females are significantly more likely to desist from crime than males (χ^2=20.955, df=1, p<.01, Cramer's V=-.175). Overall, for this offender group, hypothesis 8 and hypothesis 9 are rejected.

TABLE 15: PEARSON'S CORRELATIONS FOR H4-H6
LOW RATE OFFENDERS: SEVERITY

Hypothesis 4	Stigmatization: Parent 1	Stigmatization: Friend 1		
Job Satisfaction W6	.007	.019		
Job Satisfaction W7	-.011	.000		
Relationship Quality W6	-.172*	-.176*		
Relationship Quality W7	-.121*	-.164**		
Hypothesis 5	Job Bond 6	Job Bond 7	Relationship Bond 6	Relationship Bond 7
Desistance: Change Severity	-.034	-.022	.026	-.036
Hypothesis 6	Job Satisfaction W6	Job Satisfaction W7	Relationship Quality W6	Relationship Quality W7
Desistance: Change Severity	.047	.003	-.103	.020
True Desistance: Severity	.059	.099**	.016	.138**
HYPOTHESIS 8	Stigmatization: Parent 1	Stigmatization: Friend 1		
Desistance: Change Severity	-.053	-.056		
True Desistance: Severity	.006	-.034		

***** Correlation is significant at the p < .05 level
** Correlation is significant at the p < .01 level

Hypothesis 10 tests the relationship between stigmatization and sex in desistance to determine if there is an interaction effect between these two variables. A significant interaction effect for a variable XZ on Y indicates that the relationship between X and Y changes depending upon the value of Z. OLS and Binary Logistic regressions using the dependant variables *Desistance: Change in Severity* and *True Desistance: Severity* do not reveal any significant interactions between parent stigmatization and gender.

TABLE 16: REGRESSIONS FOR HYPOTHESIS 10
LOW RATE OFFENDERS: SEVERITY

OLS Regression				
DV: Desistance: Change in Severity (n=687)				
	B	SE	B	t
SEX	.342	.699	.109	.489
Delinquent Peers	.004	.020	.008	.175
Parent Stigma	-.014	.022	-.039	-.650
Delinquency in Adolescence: Severity	.005	.069	.003	.074
Interaction : parent stigma * sex	-.005	.029	-.040	-.181
$R^2 = .012$				
***** Correlation is significant at the $p < .05$ level ** Correlation is significant at the $p < .01$ level				
Binary Logistic Regression				
DV: True Desistance: Severity (n=687)				
	B	SE	Wald	Exp
SEX	1.775	.950	3.495	5.902
Delinquent Peers	-.034	.027	1.549	.967
Parent Stigma	.059	.030	3.706	1.060
Delinquency in Adolescence: severity (ln)	-.439	.094	21.792	.645**
Interaction : parent stigma * sex	-.046	.039	1.396	.955
Model $\chi^2 = 59.223$** -2LL = 892.251 Nagelkerke $R^2 = .110$				
***** significant at the $p < .05$ level ** significant at the $p < .01$ level				

In examining hypothesis 11 which focuses on the causal pathway between delinquency and desistance, accounting for the role of stigmatization and social bonds, two path analyses are conducted for this group of offenders. One model uses the change measure for desistance as the dependent variable, while the other uses the dichotomous true measure of desistance. Both models are significant as indicated by their chi-square values with RMSEA estimates indicating satisfactory fit for the models. Neither males nor females in either model show support for the hypothesized causal pathway. For both models, females have a significant relationship between adolescent delinquency and stigmatization as well as between stigmatization and relationship quality, though there is

no significant relationship between relationship quality and desistance for this group of offenders. These relationships are not seen in the male models. Variance estimates are all highly significant, indicating that latent (unobserved) variables not present in the model are responsible for a significant amount of variation for parental stigmatization, relationship quality, job satisfaction, and desistance. Differences between males and females in these path analyses give partial support for hypothesis 11. Specific model estimates can be found in Appendix 1.

7.4.2. Grouped by Severity – Mid Rate Offenders

Mid rate offenders, when measured by offending severity, are defined in this study as offenders whose highest severity of offending in a single year between wave 1 and wave 5 was between 62.21 and 232. This subpopulation contains 173 male offenders and 83 female offenders.

The first step to test hypotheses 1, 2, and 3 is to run T-Tests to determine if there are any mean differences between males and females in social bonds. Hypotheses 1-3 examined mean differences for the following variables: *Stigmatization: Parents 1*, *Stigmatization: Friends 1*, *Quality of Relationship 6*, *Quality of Relationship 7*, *Job Satisfaction 6*, and *Job Satisfaction 7*. Hypothesis 1 states that females who engage in adolescent criminal behavior will experience more stigmatization than males with similar offending behavior. Results of the independent samples T-Tests show that males and females in this offending category do not significantly differ on parental stigma during adolescence ($t=-1.122$, $df=126.489$, $p>.05$, equal variance not assumed) or friend stigma in adolescence ($t=.509$, $df=119.910$, $p>.05$, equal variance not assumed). The results of

this analysis indicate a rejection of hypothesis 1 for mid rate offenders grouped by severity of offending.

For hypothesis 2, which states that females will have lower quality relationships than males with similar offending behavior, independent samples T-Tests are conducted on the following variables: *Quality of Relationship 6,* and *Quality of Relationship 7*. The results show that males and females do not differ significantly on relationship quality at wave 7 ($t=1.808$, $df=72.914$, $p>.05$, equal variance not assumed), although they do differ significantly at wave 6 ($t=2.049$, $df=70.777$, $p<.05$, equal variance not assumed). The relationship is in the expected direction, with males reporting higher quality relationships than females (Males: 38.125, Females: 35.048). The results provide partial support for hypothesis 2.

Hypothesis 3 states that females will have less satisfying jobs than males with similar offending behavior. For this hypothesis, independent samples T-Tests are conducted on the following variables: *Job Satisfaction 6* and *Job Satisfaction 7*. The results show that women report significantly lower job satisfaction at wave 6 (Males: 4.02, Females: 3.68; $t=2.164$, $df=212$, $p<.05$, equal variance assumed) but not at wave 7 ($t=1.688$, $df=84.546$, $p>.05$, equal variance not assumed). These results give partial support for hypothesis 3.

To further examine the relationship between gender and the variables of interest in hypotheses 1, 2, and 3, OLS Regressions are utilized for the relationships that were found to be significant using the independent samples T-Tests. Controlling for other factors (age, race, association with deviant peers, neighborhood conditions, as well as adolescent delinquency), results show that gender is still significant related to job

satisfaction at wave 6 in the expected direction (negative). Being a woman significantly reduces job satisfaction at wave 6 by .339. Controlling for the same factors, results show that being a women significantly decreases relationship quality at wave 6 by 3.302. These findings uphold the results from the earlier T-Test and once again providing partial support for hypotheses 2 and 3.

Hypothesis 4 states that bond quality is significantly related to stigmatization. As the measures for bond quality (relationship quality and job satisfaction) as well as stigmatization (parent and friend) are all continuous variables, Pearson's Correlations are used to assess this relationship, as well as relationships for other hypotheses, and are reported in Table 17. Pearson's Correlations show that *Relationship Quality 6* is significantly related to both measures of stigmatization (*Parent1:* r=-.383, p<.01; *Friend 1:* r=-.342, p<.01). For these measures of stigmatization, the relationship is in the expected direction, with higher levels of stigmatization resulting in lower quality relationships. The Pearson's Correlation statistics for these relationships suggest that the relationship between stigma and relationship quality at wave 6 is weak to moderate. Pearson's Correlations show that job satisfaction at wave 7 is also significantly related to both measures of stigmatization (*Parent1:* r=-.259, p<.01; *Friend 1:* r=-.202, p<.01). For these measures of stigmatization, the relationship is in the expected direction, with higher levels of stigmatization resulting in lower job satisfaction at wave 7, though the relationships are weak. The Pearson's Correlations also show a significant, though weak, negative relationship between parent stigmatization and job satisfaction at wave 6 (*Parent 1:* r=-1.06, p<.05). These correlations give partial support for hypothesis 4 for mid rate offenders based on offending severity.

In examining hypothesis 5, which looks at the relationship between the presence of bonds and desistance, Pearson's Correlations using change measures for desistance one significant relationship between desistance and job bond at wave 7 ($r=.148$, $p<.05$). This relationship is weak, but in the expected direction[4]. Chi-Square tests are used to examine the relationship between the measure of true desistance and presence of job bonds or relationship bonds at waves 6 and 7, as all of the named variables are at the nominal level. Results of the Chi-Square tests show that the only significant relationship is between *True Desistance: Severity* and relationship bond at wave 7 ($\chi^2=7.476$, $df=1$, $p<.01$; Cramer's $V=.181$). The relationships between these variables is weak, as indicated by the Cramer's V scores, but in the expected direction. These results give partial support for hypothesis 5.

Hypothesis 6 focuses on the relationship between measures of desistance and bond quality. Results of the Pearson's Correlations show only one significant relationship between relationship quality and desistance. The relationship between true desistance and relationship quality at wave 7 is statistically significant, though weak, and in the expected direction, with higher relationship quality being more likely to result in desistance ($r=.252$, $p<.01$). The results of these correlations give partial support for hypothesis 6.

For this group of offenders, it appears as if hypothesis 7 is rejected, as two bond presence variables are significantly related to desistance, versus only one bond quality variable.

[4] For tests using Desistance: Change in Severity, the tests are performed using a normalized version of the variable. Specifically, the variable went through a square root transformation. Because the original variable contained negative values, the variable was transformed to contain only positive values. Through this process, the direction of the variable changed, with higher scores now representing more desistance (this is the opposite of the other change variables).

The results of the Pearson's correlations used to test hypothesis 8 for this group of offenders show that parent stigmatization is significantly related to the desistance measure based on change in severity of offending ($r=-.131$, $p<.05$). This relationship is weak but in the expected direction (with lower stigmatization resulting in higher levels of desistance). Additionally, for mid rate offenders based on severity of offending, the results of the independent samples T-Tests used to test hypothesis 9, which focuses on the relationship between gender and desistance, show no significant differences in the average change in severity of offending ($t=-1.02$, $df=225$, $p>.05$, equal variance assumed). For the dichotomous desistance measures, Chi-Square tests are used. Results show that there are not significant differences in desistance between males and females for this group ($\chi^2=1.776$, $df=1$, $p>.05$). Overall, for this offender group, hypothesis 8 is partially supported while hypothesis 9 is rejected.

TABLE 17: PEARSON'S CORRELATIONS FOR H4-H6
MID RATE OFFENDERS: SEVERITY

Hypothesis 4	Stigmatization: Parent 1	Stigmatization: Friend 1		
Job Satisfaction W6	-.160*	-.109		
Job Satisfaction W7	-.259**	-.202**		
Relationship Quality W6	-.383**	-.342**		
Relationship Quality W7	-.141	-.121		
Hypothesis 5	Job Bond 6	Job Bond 7	Relationship Bond 6	Relationship Bond 7
Desistance: Change Severity	-.039	.148**	.010	.059
Hypothesis 6	Job Satisfaction W6	Job Satisfaction W7	Relationship Quality W6	Relationship Quality W7
Desistance: Change Severity	.111	-.029	.040	.078
True Desistance: Severity	.042	.096	.123	.252**
HYPOTHESIS 8	Stigmatization: Parent 1	Stigmatization: Friend 1		
Desistance: Change Severity	-.131*	-.120		
True Desistance: Severity	-.016	-.073		

***** Correlation is significant at the p < .05 level
** Correlation is significant at the p < .01 level

Hypothesis 10 tests the relationship between stigmatization and sex in desistance to determine if there is an interaction effect between these two variables. A significant

interaction effect for a variable XZ on Y indicates that the relationship between X and Y changes depending upon the value of Z. The OLS regression using the dependant variables *Desistance: Change in Severity* shows a significant interaction effect between parent stigmatization and gender. In contrast to the full sample, the relationships shown in the regression model indicate that women have less decreases in offending than men (b=-12.447) and that higher levels of stigmatization are related to lesser decreases in offending (b=-.471). The interaction term shows that the significant relationship between parent stigma and desistance increases in strength for females (b=.518), meaning stigmatization causes has a larger impact on women, causing lesser decreases in offending (lower levels of desistance). This group is the only group analyzed whose results support hypothesis 10.

TABLE 18: REGRESSIONS FOR HYPOTHESIS 10
MID RATE OFFENDERS: SEVERITY

OLS Regression				
DV: Desistance: Change in Severity (n=227)				
	B	SE	β	t
SEX	-12.447	5.400	-.964	-2.305*
Delinquent Peers	-.028	.115	-.017	-.244
Parent Stigma	-.471	.150	-.302	-3.142**
Delinquency in Adolescence: Severity	-.114	1.086	-.007	-.105
Interaction : parent stigma * sex	.518	.205	1.079	2.521*
R^2 = .051				
***** Correlation is significant at the p < .05 level ** Correlation is significant at the p < .01 level				
Binary Logistic Regression				
DV: True Desistance: Severity (n=227)				
	B	SE	Wald	Exp
SEX	1.026	2.134	.231	2.791
Delinquent Peers	-.106	.048	4.854	.900*
Parent Stigma	.034	.061	.315	1.035
Delinquency in Adolescence: severity (ln)	-.207	.430	.231	.813
Interaction : parent stigma * sex	-.025	.082	.096	.975
Model χ^2 = 8.203 -2LL = 238.522[a] Nagelkerke R^2 = .054				
***** significant at the p < .05 level ** significant at the p < .01 level				

In examining hypothesis 11 which focuses on the causal pathway between delinquency and desistance, accounting for the role of stigmatization and social bonds, two path analyses are conducted for this group of offenders. One model uses the change measure for desistance as the dependent variable, while the other uses the dichotomous true measure of desistance. Both models are significant according to chi-square values, but RMSEA estimates indicate poor fit the models (RMSEA: change=.221; true=.135). Both models show a significant relationship for males and females between adolescent delinquency and delinquent peer exposure. In the model measuring change in delinquency, males are shown to have a significant pathway between job satisfaction and desistance that is not seen for females. In the true desistance model, both males and females have a significant pathway to desistance through relationship quality. Variance estimates are all highly significant, indicating that latent (unobserved) variables not present in the model are responsible for a significant amount of variation for parental stigmatization, relationship quality, job satisfaction, and desistance. Results of these path analyses give partial support for hypothesis 11. Specific model estimates can be found in Appendix 1.

7.4.3. Grouped by Severity – High Rate Offenders

High rate offenders, when measured by offending severity, are defined in this study as offenders whose highest severity of offending in a single year between wave 1 and wave 5 was between 232.1 and 4255. This subpopulation contains 127 male offenders and 54 female offenders.

The first step to test hypotheses 1, 2, and 3 is to run T-Tests to determine if there are any mean differences between males and females in social bonds. Hypotheses 1-3 examined mean differences for the following variables: *Stigmatization: Parents 1*, *Stigmatization: Friends 1*, *Quality of Relationship 6*, *Quality of Relationship 7*, *Job Satisfaction 6*, and *Job Satisfaction 7*. Hypothesis 1 states that females who engage in adolescent criminal behavior will experience more stigmatization than males with similar offending behavior. Results of the independent samples T-Tests show that males and females in this offending category do not significantly differ on parental stigma during adolescence ($t=.410$, $df=179$, $p>.05$, equal variance assumed). Results show that males and females do differ significantly on friends stigma during adolescence ($t=2.767$, $df=179$, $p<.05$, equal variance assumed). However, the direction of the relationship is not in the expected direction. Males have a higher mean than women for friend stigma (Males: 25.899, Females: 24.148). The results of this analysis indicate a rejection of hypothesis 1 for high rate offenders grouped by severity of offending.

For hypothesis 2, which states that females will have lower quality relationships than males with similar offending behavior, independent samples T-Tests are conducted on the following variables: *Quality of Relationship 6*, and *Quality of Relationship 7*. The results show that males and females do not differ significantly on relationship quality at wave 6 ($t=1.398$, $df=65$, $p>.05$, equal variance assumed) nor do they significantly differ on relationship quality at wave 7 ($t=.1.221$, $df=42.757$, $p>.05$, equal variance not assumed). As the T-Tests for relationship quality do not reveal any significant difference between males and females, hypothesis 2 is rejected for high rate offenders grouped by severity of offending.

Hypothesis 3 states that females will have less satisfying jobs than males with similar offending behavior. For this hypothesis, independent samples T-Tests are conducted on the following variables: *Job Satisfaction 6* and *Job Satisfaction 7*. The results show that men and women do not significantly differ on job satisfaction at wave 6 ($t=1.214$, $df=154$, $p>.05$, equal variance assumed) or wave 7 ($t=1.191$, $df=140$, $p>.05$, equal variance assumed). The results of these independent samples T-Tests indicate that hypothesis 3 should be rejected for high rate offenders grouped by severity of offending..

Due to the fact that all three hypotheses were rejected for high rate offenders based on frequencies, OLS regressions were not conducted in this part of the analysis.

Hypothesis 4 states that bond quality is significantly related to stigmatization. As the measures for bond quality (relationship quality and job satisfaction) as well as stigmatization (parent and friend) are all continuous variables, Pearson's Correlations are used to assess this relationship, as well as relationships for other hypotheses, and are reported in Table 19. Pearson's Correlations show that there are no significant relationships between stigmatization and bond quality for this offender group. As such, hypothesis 4 is rejected for high rate offenders based on offending severity.

In examining hypothesis 5, which looks at the relationship between the presence of bonds and desistance, Pearson's Correlations using change measures for desistance do not reveal any significant relationships. Chi-Square tests are used to examine the relationship between the measure of true desistance and presence of job bonds or relationship bonds at waves 6 and 7, as all of the named variables are at the nominal level. Results of the Chi-Square tests show no significant relationships between the variables.

Considering the results of the Chi-Square tests and Pearson's Correlations, hypothesis 5 is rejected for high rate offenders grouped by severity of offending.

Hypothesis 6 focuses on the relationship between measures of desistance and bond quality. Results of the Pearson's Correlations show significant relationships between true desistance and relationship quality at wave 6. The relationship is positive, but weak, and are in the expected direction ($r=.326$, $p<.01$), showing that as quality of bonds increase, the likelihood of desistance also increases. The results of these correlations give partial support for hypothesis 6.

For this group of offenders, it appears as if hypothesis 7 is supported, as there are no significant relationships between the presence of social bonds and desistance, but there is at least one significant relationship between the quality of social bonds and desistance.

The results of the Pearson's correlations used to test hypothesis 8 for this group of offenders show that friend stigmatization is significantly related to the dichotomous desistance measure ($r=-.158$, $p<.05$) in the expected direction, though the relationship is weak. The correlation shows that higher stigma relates to lower levels of desistance. Additionally, for high rate offenders based on severity of offending, the results of the independent samples T-Tests used to test hypothesis 9, which focuses on the relationship between gender and desistance, show no significant differences in the average change in severity of offending ($t=-.189$, $df=155$, $p>.05$, equal variance assumed). For the dichotomous desistance measures, Chi-Square tests are used. Results show that females are significantly more likely to desist from crime than males ($\chi^2=4.182$, $df=1$, $p<.05$,

Cramer's V=.163). Overall, for this offender group, hypothesis 8 is partially supported while hypothesis 9 is rejected.

TABLE 19: PEARSON'S CORRELATIONS FOR H4-H6
HIGH RATE OFFENDERS: SEVERITY

Hypothesis 4	Stigmatization: Parent 1	Stigmatization: Friend 1		
Job Satisfaction W6	.085	.144		
Job Satisfaction W7	-.099	-.065		
Relationship Quality W6	-.201	-.105		
Relationship Quality W7	.015	.100		
Hypothesis 5	Job Bond 6	Job Bond 7	Relationship Bond 6	Relationship Bond 7
Desistance: Change Severity	-.118	-.046	.061	-.077
Hypothesis 6	Job Satisfaction W6	Job Satisfaction W7	Relationship Quality W6	Relationship Quality W7
Desistance: Change Severity	-.008	.110	.080	.047
True Desistance: Severity	.042	.096	.326**	.072
HYPOTHESIS 8	Stigmatization: Parent 1	Stigmatization: Friend 1		
Desistance: Change Severity	.029	.019		
True Desistance: Severity	-.084	-.158*		

***** Correlation is significant at the $p < .05$ level
** Correlation is significant at the $p < .01$ level

Hypothesis 10 tests the relationship between stigmatization and sex in desistance to determine if there is an interaction effect between these two variables. A significant interaction effect for a variable XZ on Y indicates that the relationship between X and Y changes depending upon the value of Z. OLS and Binary Logistic regressions using the dependant variables *Desistance: Change in Severity* and *True Desistance: Severity* do not reveal any significant interactions between parent stigmatization and gender. Hypothesis 10 is rejected for this group of offenders.

TABLE 20: REGRESSIONS FOR HYPOTHESIS 10
HIGH RATE OFFENDERS: SEVERITY

OLS Regression				
DV: Desistance: Change in Severity (n=157)				
	B	SE	β	t
SEX	4.184	4.977	.328	.841
Delinquent Peers	.095	.088	.082	1.082
Parent Stigma	-.110	.118	-.084	-.930
Delinquency in Adolescence: Severity	4.373	.503	.588	8.699**
Interaction : parent stigma * sex	-.131	.178	-.290	-.738
R^2 = .358				
***** Correlation is significant at the p < .05 level ** Correlation is significant at the p < .01 level				
Binary Logistic Regression				
DV: True Desistance: Severity (n=1257)				
	B	SE	Wald	Exp
SEX	-1.670	2.531	.435	.188
Delinquent Peers	-.070	.050	1.962	.933
Parent Stigma	-.036	.069	.278	.964
Delinquency in Adolescence: severity (ln)	-.430	.284	2.292	.651
Interaction : parent stigma * sex	.090	.092	.950	1.094
Model χ^2 = 11.218* -2LL = 147.557 Nagelkerke R^2 = .108				
***** significant at the p < .05 level ** significant at the p < .01 level				

In examining hypothesis 11 which focuses on the causal pathway between delinquency and desistance, accounting for the role of stigmatization and social bonds, two path analyses are conducted for this group of offenders. One model uses the change measure for desistance as the dependent variable, while the other uses the dichotomous true measure of desistance. Both models are significant with chi-square values and RMSEA estimates indicating a satisfactory fit for the models. In both models, the

predicted causal pathway to desistance in unsupported for males and females, though there are gender differences in the significant relationships found for each group. For both models, males and females have a significant relationship between adolescent delinquency and exposure to delinquent peers. In both the change model and the true desistance model, bond quality is not a significant predictor of desistance for males females. In the change model, females have a significant relationship between parental stigmatization and relationship quality. In the true desistance model, females have a significant relationship between parental stigmatization and relationship quality, as well as a relationship between delinquent peer exposure and desistance. These relationships are not found for males. Variance estimates are all highly significant, indicating that latent (unobserved) variables not present in the model are responsible for a significant amount of variation for parental stigmatization, relationship quality, job satisfaction, and desistance. Results of these path analyses give partial support for hypothesis 11. Specific model estimates can be found in Appendix 1.

CHAPTER 8. DISCUSSION AND CONCLUSIONS

8.1. KEY CONTRIBUTIONS

The present study set out with two main theoretical goals in mind: to further explore the idea that there may be gendered pathways out of crime, specifically within the framework of Sampson and Laub's (1993) age graded theory of informal social control, and to examine the claim by Li and MacKenzie (2003) that stigmatization may have a pivotal role in understanding the hypothesized gender differences in the desistance process. Both goals were precipitated by inconsistent findings within research on developmental and life course criminology. In examining the effects of social bonds on transitions and desistance from crime, studies have shown a wide array of relationships, from social bonds such as marriage and employment affecting male and female desistance in the same way (Uggen and Kruttschnitt, 1998), to social bonds having no effect on desistance for men or women (Giordano et al., 2002), to social bonds differentially affecting men and women (Alarid et al., 2000; Benda, 2005; King et al., 2007; Li and MacKenzie, 2003; Simons et al, 2002).

These inconsistencies led to two additional goals that were more methodological in nature: to determine if the inconsistent research findings were due to the actual measurement of delinquency, such as measuring delinquency as a frequency of offending versus severity of offending, or the measurement of desistance, which can be seen purely as a ceasing of all deviant behavior (true desistance) or simply a decrease in offending (change in offending behavior). The other more methodological goal of the current study was to look at how the desistance process (or the likelihood of desistance) may vary by gender when males and females are matched on offending behavior and divided into subgroups. Other studies have matched high rate male offenders with high rate female

offenders before, but that is not really a fair comparison of how equal levels of delinquency may affect men and women differently. That is because males, historically, have higher levels of offending overall than females. Because of this, the actual offending behavior of high rate female offenders may more closely resemble the offending behavior of mid rate male offenders, instead of high rate male offenders. Because of this issue, the current analysis used the distribution of female offending behavior to divide males and females into offender groups: low rate offenders, mid rate offenders, and high rate offenders. This grouping allowed for a more accurate way to examine the effects of delinquency on males and females, and how that delinquency may influence the overall desistance process.

To achieve the goals of the study, analyses were conducted to test twelve hypotheses (listed below in table 21) related to potential gender differences in the desistance process, examining traditional mechanisms (termed "turning points" by Sampson and Laub) such as quality of romantic bonds and job satisfaction, as well the potential role of stigmatization. The measures of social bond quality were tested against the mere presence of those same social bonds (relationships and jobs), to determine if it is the mere presence of a bond or the quality of a bond that influences desistance. Sampson and Laub (1990) claim that it is the quality of the bond that is important, though some research studies on desistance simply look at the presence or absence of a bond. Then, tests were conducted to determine if adolescent delinquency was related to stigmatization, and if that stigmatization was related to the formation of quality social bonds, which in turn would theoretically be related to desistance. Males and females were compared to uncover any potential gender differences in this point of the process, as Li and

MacKenzie (1993) hypothesized that female offenders may be subject to greater levels of stigmatization than male offenders. Finally, a theoretical causal model for desistance was tested separately for male and female offenders to determine if the process of desistance is dependent on the offender's sex.

TABLE 21: HYPOTHESES

H_1	It is hypothesized that females who engage in adolescent criminal behavior will experience more stigmatization than males with similar offending behavior.
H_2	It is hypothesized that females who engage in adolescent criminal behavior will have lower quality relationships than males with similar offending behavior.
H_3	It is hypothesized that females who engage in adolescent criminal behavior will have less satisfying jobs than males with similar offending behavior.
H_4	It is hypothesized that bond quality will be significantly related to stigmatization, with higher levels of stigmatization resulting in lower levels of bond quality.
H_5	It is hypothesized that the presence of social bonds will be significantly related to desistance from crime, with a positive relationship between bond presence and desistance.
H_6	It is hypothesized that the strength (quality) of social bonds will be significantly related to desistance from crime, with stronger bonds related to higher levels of desistance.
H_7:	It is hypothesized that the correlation between quality of social bonds and desistance will be greater than the correlation between the presence of social bonds and desistance.
H_8	It is hypothesized that stigmatization will be significantly related to desistance from crime, with lower levels of stigmatization related to higher levels of desistance.
H_9	It is hypothesized that deviant females will be less likely to desist from crime than males with similar offending behavior.
H_{10}	It is hypothesized that the effect of stigmatization on desistance will be greater for females than males with similar offending behavior.
H_{11}	It is hypothesized that the process of desistance, specifically the relationship between adolescent delinquency, stigmatization, relationship quality, and desistance, will differ between men and women.
H_{12}	It is hypothesized that analyses using different measures of the same construct (delinquency or desistance) will yield different results.

8.2. KEY FINDINGS

While the analyses for this study were extensive, answers to several key questions will be discussed. The first question address is "are women more likely to be stigmatized by delinquency than men?" Using the present sample, regardless of the way in which delinquency is measured, or which offender group was being analyzed, the analysis showed that men actually report higher parent and friend stigmatization in adolescence (hypothesis 1) than women, controlling for delinquent behavior. Though this finding

goes against Li and MacKenzie's (2003) claim that women face higher stigmatization than men, the issue of gender and the effects of stigmatization are more complex. Other analyses within the current research study showed that although men report higher stigmatization than women, there is a significant interaction effect between stigmatization and gender in relation to the overall desistance process using the full sample of offenders (see Figure 2). Results showed that stigmatization had a greater effect on the desistance process for women than it did for men (hypothesis 10). Though the relationship between stigmatization and desistance found in this interaction was actually the opposite of what was expected (stigmatization actually increased the likelihood of desistance in women), it still shows that even if men experience more stigmatization, women may be more sensitive to the stigmatization itself. This is not necessarily an unexpected finding considering prior research cited earlier that suggests that women place a higher value on social interactions (which includes stigmatization) than men do (Covington, 2002; Windle, 1992). So, even if delinquency results in higher stigmatization for men, the cost of the delinquency may actually be higher for women, considering the greater impact stigmatization has in the life of a woman versus a man. However, because the effect of stigmatization was not in the hypothesized direction, and because this interaction effect was not consistently seen across offender groups, hypothesis 10 was rejected in the current study.

The next question related to stigmatization is whether or not stigmatization affects the formation of quality social bonds (hypothesis 4). Results of the current study led support to the hypothesis that stigma affects social bonds. However, results varied slightly depending on which offender group was being analyzed. When examining

adolescent stigmatization and bond quality (relationship quality and job satisfaction) at waves 6 and 7, the relationships were not consistent. Some offender groups had a relationship between stigmatization and relationship quality at wave 6 but not wave 7, where other offender groups had a relationship between stigmatization and job satisfaction but not relationship quality. No offender group had a significant correlation between both measure of stigmatization (parent and friend) and all four measures of bond quality (relationship quality wave 6, relationship quality wave 7, job satisfaction wave 6, and job satisfaction wave 7). This finding will be discussed more fully.

The next question answered by the current study is whether or not women desist at lower rates than men when *matched by offending behavior*. Again, men were separated into offender groups that were determine based upon the distribution of female delinquency. Ideally, this matching allows for more of a direct comparison. It appears, though, that even when matching males and females by offending behavior, women consistently are more likely to desist from crime than men (Hypothesis 9). This was true for every offender group measured, regardless of the desistance measure used (true desistance versus change in offending behavior).

In examining the theoretical desistance process posited by Sampson and Laub (1990), specifically that turning points such as relationships or employment lead to desistance, the current study looked at the relationship between social bonds and desistance. In general, results showed that while the mere presence of a social bond was not related to desistance (hypothesis 5), bond quality was significantly related to desistance (hypothesis 6), with bonds of higher quality related to higher levels of desistance. This finding may help explain some inconsistencies in prior research

regarding the relationship between social bonds and desistance. Specifically, researchers who measure social bonds by the mere presence or absence of a bond may be less likely to find a significant relationship between social bonds and desistance than researchers who use measures of bond quality.

Testing for gender differences in the strength of social bonds (hypothesis 3 and 4) providing some keys finding as well. Results showed that, overall, men and women did not differ significantly on relationship quality, even when matched on offending behavior. But, job satisfaction was lower for women than for men in all but two offender groups. Although results of the path analyses used to test hypothesis 11 showed some support for the idea that adolescent delinquency affects later relationship quality, it does not appear as though adolescent delinquency is significantly related to job satisfaction for men or women. Instead, the finding that women overall have less satisfying jobs than men may be a reflection of the struggle women face in the workforce to be accepted into prestigious jobs at the same rate as men.

One of the main goals of the current study was to examine a causal relationship posed by Li and MacKenzie (2003) that stigmatization plays a key role in the desistance process, particularly for women. Combining stigmatization into one of the main theories that explains the desistance process (Sampson and Laub's age graded theory of informal social control), a causal model was created. The model tested in hypothesis 11 traced paths between adolescent delinquency and parent stigmatization, then parent stigmatization to relationship quality, and finally relationship quality to desistance. Overall, this model was tested on the full sample of offenders, as well as low rate, mid rate, and high rate offenders using frequency and severity measures for offending. The

model was also run for two outcome (desistance) measures: desistance as measured by change in offending, as well as true desistance (cessation of offending, or static desistance). In total, the model was run 16 times using a multigroup approach which provided separate estimates for males and females. Of the 32 total model estimates, only 1 model provided support for the hypothesized casual pathway from adolescent delinquency to desistance: the female model using the full sample of offenders, with delinquency measured by frequency of offending, and desistance measured by change in offending. For that model, the causal relationship was exactly as predicted: higher levels of adolescent delinquency significantly increased parental stigmatization; higher parental stigmatization significantly decreased relationship quality; and lower relationship quality decreased the likelihood of desistance. If the current study had only measured delinquency using frequency of offending, had not separated offenders into offender groups, and had measured desistance only by change in offending, then this research would support the claim by Li and MacKenzie (2003) that stigmatization plays a role in the desistance process, and that the process is different for men than women.

This point leads to arguably the most important question of the entire study: how does the measurement of delinquency affect research within developmental and life course criminology? It was hypothesized that many of the inconsistencies in the literature on DLS could be contributed to measurement differences, and for the current study, hypothesis 12, which stated that analyses using different measures for the same construct will yield different results, was supported. A full listing of the results of the hypotheses tests separated by offender group can be found in Table 22 listed below. There are no discernable patterns to the findings of the various hypotheses in this study.

Results using severity of offending and frequency of offending vary, just as results using low rate, mid rate, and high rate offenders vary. Additionally, results varied using the static measure of desistance (true desistance) versus the dynamic change measure of desistance. It appears as if the relationships between gender, social bonds, stigmatization, and desistance are sensitive to the measure of delinquency, the measure of desistance, and do not operate similarly in different offender groups.

Going back to the finding described in the paragraph above, the theorized causal pathway between delinquency and desistance was supported by one group analysis: the female model using the full sample of offenders, delinquency measure by frequency of offending, and desistance measured by change in offending. Breaking down females into their appropriate offender groups, however, revealed that this causal process was not shared by female offenders in their offending subgroups. Instead, results showed that the significant relationship between delinquency and stigma was true for low rate offenders, but not mid or high rate female offenders. The next part of the chain, the relationship between stigma and relationship quality, was also true for low rate female offenders, but not for mid or high rate female offenders. The final part of the chain, the relationship between relationship quality and desistance, was true for mid and high rate offenders, but NOT for low rate female offenders. When you put them all together, even when controlling for adolescent delinquency, there appears to be an identified desistance process, but it really is not true for any of the female offenders.

TABLE 22: RESULTS LISTED BY OFFENDER GROUP

Group	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11
F1	Reject	Reject	Partial support	Partial support	Reject	Partial support	Support	Reject	Reject	Reject	Partial Support
F2	Reject	Reject	Partial support	Reject	Reject	Partial Support	Support	Partial support	Reject	Reject	Partial Support
F3	Reject	Partial Support	Partial Support	Partial support	Reject	Partial Support	Support	Partial support	Reject	Reject	Partial Support
S1	Reject	Reject	Support	Partial Support	Partial support	Partial support	Reject	Reject	Reject	Reject	Partial Support
S2	Reject	Partial Support	Partial Support	Partial support	Partial support	Partial support	Reject	Partial support	Reject	Support	Partial Support
S3	Reject	Reject	Reject	Reject	Reject	Partial Support	Support	Partial support	Reject	Reject	Partial Support
ALL	Reject	Reject	Support	Partial Support	Partial Support	Partial Support	Support	Partial Support	Reject	Reject	Partial Support

Ultimately, results of the current study support the proposition that the desistance process differs for men and women. When examining the relationship between stigmatization, social bonds and desistance, results consistently reveal different significant relationships for men and women. Of course, as mentioned in the results section when discussing the path analyses, the variance terms in the model were all highly significant, indicating that the desistance process could not be explained solely by the variables observed in the model. Instead, unobserved latent variables played a large role in explaining the variation in desistance (as well as parent stigma, relationship quality and job satisfaction). However, it appears as though the final conclusion from the current study is that the desistance process may vary on the individual level. Perhaps, there is no one desistance process for all offenders, or even for large subgroups of offenders (such as male offenders and female offenders). These findings certainly support the general tendency in DLC towards greater specificity, manifested in efforts to subdivide offender populations and characteristics of the criminal career (Sampson and Laub, 2005; 165).

8.3. LIMITATIONS

Though every effort was taken to provide the best possible circumstances for testing the aforementioned hypotheses, as with any research, there were limitations to the current study. The first limitation of the current study is the issue of panel bias and attrition within the National Youth Survey. As mentioned earlier, Laurtisen (1998) found that regardless of the subject's age at the beginning of the data collection process for the NYS, overall self reported delinquency consistently decreased over time. This finding goes against the age-crime curve in criminology (that offending should peak between ages 16 and 17, generally speaking), suggesting that self reporting decreased relational to an individual's time in the sample, with less reporting occurring the longer the individual is in the study. These panel effects can be problematic because it indicates that delinquency measures based on self reported delinquency may not be accurate, especially in later waves of the NYS. With the age-crime curve in mind, previous research studies involving the NYS have taken measures at later waves, or when participants were of a specific age (such as age 17 (King, Massoglia and Macmillan, 2007)). Taking into account the findings from Laurtisen (1998), the current study did not calculate adolescent delinquency with a specific age in mind, but instead used the highest level of delinquency measured between waves 1-5. That way, even if offending decreased over time due to panel effects, the difference in offending due to the age of the participant at the beginning of the data collection process should be at a minimum. Additionally, other measures such as parent stigma, friend stigma, and deviant peer exposure in adolescence were averaged throughout waves 1 through 5. Despite these efforts, though, this time in sample bias could still have had an effect on the results. This issue, though, is one faced commonly faced by any longitudinal design involving voluntary self reporting.

Another area of concern with the NYS, as with any longitudinal study, was that of attrition. Of the 1,725 youths originally participating in wave 1 of the survey, only 1,517 participated in the final wave of the study (wave 7), representing an attrition rate of 12%. However, according to Elliott and colleagues (1989), this attrition rate was rather small and the researchers concluded, therefore, that the representativeness of the sample was not affected. Despite this conclusion, it is still possible that results would be different if all original participants had remained in the study through its completion. Though there does not seem to be an pattern to the participants who did not complete the NYS, it cannot be proved that there was no effect of attrition on the results because there is no follow up information on those participants who dropped out. Again, though, mean comparisons on key variables for the whole sample at wave 1 and wave 7 of the NYS do not indicate any alarming differences. Therefore, it is concluded that one should not be overly concerned about the effect of the attrition within the NYS.

Also of concern when using the NYS for this research study is the period in which the data was collected. The NYS was collected from 1977 to 1987, and although the NYS is a popular longitudinal data set used within the field of criminology, it is possible that factors related to desistance today may have changed since the collection of this data. Especially when examining gender differences, it is important to understand how women's role in society has been changing over the last few decades. As women are decreasing their differences with men on societal issues such as involvement in the work force, annual salary, and even representation in offender populations, it is possible that this equalizing among the sexes may have an equalizing effect on the desistance process as well.

Finally, one last limitation of the current study dealing with the National Youth Survey is the individuals' ages during their participation in the data collection process. Participants were aged 11-17 at the beginning of data collection and 22-29 at the end of data collection. It is possible that some participants were too young to be involved in meaningful relationships or have jobs that would be considered "turning points" in the desistance process. Age was entered as an independent variable into the multivariate analyses to control for this issue, but was found to be insignificant. Still, it is possible that the lack of a relationship between social bonds and desistance found in the current study was due, in part, to the youthfulness of the sample.

When designing any research study, some researcher decisions may have an effect on the results. In the current study, group membership was determined based upon an inspection of the distribution of offending frequency for female participants. Natural breaks were used to divide the offenders into three groups: low, mid, and high rate offenders. The percentages associated with the group divisions were then used to separate the individuals in the study into three groups based on offending severity. The low rate offender group contained the lowest 75% of offenders (excluding non offenders). The mid rate offender group contained offenders in the 76^{th} to 90^{th} percentile. Finally, the high rate offender group contained the top 10% of female offenders. Males with matching offending scores were placed in the appropriate categories, and male offenders who had offending scores that exceed the score of the highest female offender were eliminated from the analysis (though this eliminated a maximum of 10 male offenders from the analysis). Despite the rationale for how these groups were separated, it is possible that splitting the offenders into groups based upon different criteria (for example,

having equal numbers of offenders in each group) or having more or less offender groups, may have influenced the results.

Despite the few limitations listed above, however, the results of this study should not be discounted, especially considering the paucity of research in the area of gender and developmental and life-course criminology. Once again, this study added to the inconsistencies of this area of research, and provided additional evidence that more research is necessary in this field.

8.4. FUTURE RESEARCH

Although the current study was broad in scope and answered a variety of questions relevant to developmental and life course criminology, there are remaining questions that should be answered through future research. The results of this study support ideas presented earlier by other researchers regarding the analysis of desistance among offender subgroups. Clearly there is a need to study desistance at more of a micro level, as the current study showed that no two offender groups had the same relationship between delinquency, stigmatization, social bonds and desistance. As such, future research should continue to divide offenders into subgroups to understand how the desistance process may vary individually. As illustrated by the results of hypothesis 11, just because a desistance process appears significant for a large group of offenders does not mean the same process will work on a more individual level. There appears to be heterogeneity among offenders, as discussed by Bushway, Thornberry, and Krohn (2003) as well as Kazemian (2007), in terms of the desistance process, and prior offending behavior should help guide the division of offenders into subgroups for further study.

It has been suggested that there may be different paths or trajectories to desistance (Bushway, Thornberry, and Krohn, 2003). This idea of "equifinality"- that multiple causal processes can lead to the same outcome- seems to be supported by the current research and is an idea that should be explored in future research on desistance. It may help for researchers to start at a more individual level, perhaps through qualitative analyses, to understand the desistance process and then work towards a more macro theory of how the process may work for larger groups of offenders.

Given the strong findings regarding the influence of delinquency measures on research findings, it would be helpful to have a meta-analysis that examines prior research studies on the desistance process, accounting for the way in which the studies measure delinquency and desistance to see if there are any clear patterns in studies that show a relationship between social bonds and desistance versus those that do not. This will help give further support to the idea that inconsistencies in the research are, in fact, due to measurement differences as opposed to theoretical shortcomings.

Following up on such an analysis, it would also be helpful for clear standards to be identified regarding how future researchers should measure these concepts in practice. The current study looked at measuring delinquency by frequency and severity, but there are other measures of delinquency, such as variety, that may also be valid. Additionally, one can measure frequency of delinquency or severity of delinquency in different ways as well, but adjusting the number of criminal or delinquent acts that should be considered. For example, should only felonious behavior be considered when measuring delinquency, or should it include all types of delinquency, even non criminal acts such as cheating on a test? Piquero, Macintosh and Hickman (2002) found that there were biases in differential

item functioning across subgroups of respondents based on age, race, gender, and place of residence when asking about self reported delinquency. Though self reported delinquency has been validated as an accurate way of measuring deviant behavior (Thornberry and Krohn, 2000), more research is needed on how items vary across subgroups, especially when using delinquency measurements as a starting point for studying other issues (such as gender differences or the desistance process).

Future research should also examine further the role stigmatization plays in the desistance process using other samples and data which has a longer follow up period. It is possible that the same analysis using a data set which allowed participants more time to develop meaningful relationships in their lives and continue further into the desistance process would yield stronger, more consistent results than those found in the current study. That being said, it is clear from the current research that there is the potential for stigmatization to play a major role in the desistance process, even if only for specific offender groups.

Though the current research took a significant step for research on gender differences within developmental and life-course criminology, there is still a paucity of research in this area. Hopefully, through continued efforts to study how crime affects individuals over the life-course, researchers may in the future be able to understand the true relationship between gender, delinquency, transitions, and desistance. Moving forward, it is essential for there to be consensus in the field regarding the appropriate measurement for concepts related to research in developmental and life-course criminology. Until then, it is difficult to combine the current available research to make

any generalizations about the relationship between delinquency, social bonds, gender, and the desistance process.

APPENDIX A: ESTIMATES FOR PATH ANALYSES

Low Rate Offenders: Frequency

Desistance Measure (DV): Change in offending (frequency) Model Chi-Square: 41.891, df= 14, p < .001 RMSEA: .052			
Male Model			
Path	Estimate	S.E.	Critical Ratio
Adolescent delinquency ←→ Delinquent peers	.994	.152	6.556**
Adolescent delinquency → parent stigmatization	.931	.262	3.558**
Adolescent delinquency → Job satisfaction	-.076	.060	-1.261
Adolescent delinquency → Relationship quality	.054	.112	.485
Parent stigmatization → Relationship quality	-.029	.023	-1.289
Relationship quality → Desistance	1.449	1.561	.929
Job satisfaction → Desistance	-.977	2.849	-.343
Delinquent peers → Desistance	.369	.725	.509
Female Model			
Path	Estimate	S.E.	Critical Ratio
Adolescent delinquency ←→ Delinquent peers	.836	.146	5.711**
Adolescent delinquency → parent stigmatization	1.345	.281	4.783**
Adolescent delinquency → Job satisfaction	.067	.073	.917
Adolescent delinquency → Relationship quality	-.274	.252	-1.087
Parent stigmatization → Relationship quality	-.126	.045	-2.823**
Relationship quality → Desistance	-.011	.698	-.016
Job satisfaction → Desistance	-4.638	2.375	-1.953
Delinquent peers → Desistance	-.090	.715	-.126
***** significant at the p < .05 level ** significant at the p < .01 level			
Desistance Measure (DV): True Desistance (frequency) Model Chi-Square: 53.522, df= 14, p < .001 RMSEA: .062			
Male Model			
Path	Estimate	S.E.	Critical Ratio
Adolescent delinquency ←→ Delinquent peers	.994	.152	6.556**
Adolescent delinquency → parent stigmatization	.931	.262	3.558**
Adolescent delinquency → Job satisfaction	-.076	.060	-1.261
Adolescent delinquency → Relationship quality	.054	.112	.485
Parent stigmatization → Relationship quality	-.029	.023	-1.289
Relationship quality → Desistance	-.030	.017	-1.747
Job satisfaction → Desistance	-.004	.032	-.115
Delinquent peers → Desistance	-.006	.008	-.738
Female Model			
Path	Estimate	S.E.	Critical Ratio
Adolescent delinquency ←→ Delinquent peers	.836	.146	5.711**
Adolescent delinquency → parent stigmatization	1.345	.281	4.783**
Adolescent delinquency → Job satisfaction	.067	.073	.917
Adolescent delinquency → Relationship quality	-.274	.252	-1.087
Parent stigmatization → Relationship quality	-.126	.045	-2.823**
Relationship quality → Desistance	-.002	.006	-.311
Job satisfaction → Desistance	.011	.021	.520
Delinquent peers → Desistance	-.020	.006	-3.021**
***** significant at the p < .05 level ** significant at the p < .01 level			

Mid Rate Offenders: Frequency

Desistance Measure (DV): Change in offending (frequency) Model Chi-Square: 58.001, df= 14, p < .001 RMSEA: .111			
Male Model			
Path	Estimate	S.E.	Critical Ratio
Adolescent delinquency ←→ Delinquent peers	.319	.116	2.749**
Adolescent delinquency → parent stigmatization	.685	.798	.858
Adolescent delinquency → Job satisfaction	.034	.212	.162
Adolescent delinquency → Relationship quality	.624	.437	1.426
Parent stigmatization → Relationship quality	-.032	.041	-.791
Relationship quality → Desistance	.836	2.768	.302
Job satisfaction → Desistance	-3.145	5.738	-.548
Delinquent peers → Desistance	.122	1.380	.088
Female Model			
Path	Estimate	S.E.	Critical Ratio
Adolescent delinquency ←→ Delinquent peers	.283	.189	1.503
Adolescent delinquency → parent stigmatization	.365	1.291	.283
Adolescent delinquency → Job satisfaction	.270	.298	.906
Adolescent delinquency → Relationship quality	-.062	1.392	-.044
Parent stigmatization → Relationship quality	-.137	.122	-1.123
Relationship quality → Desistance	-7.477	3.225	-2.318*
Job satisfaction → Desistance	2.091	15.105	.138
Delinquent peers → Desistance	-3.576	3.756	-.952
***** significant at the p < .05 level ** significant at the p < .01 level			
Desistance Measure (DV): True Desistance (frequency) Model Chi-Square: 62.608, df= 14, p < .001 RMSEA: .116			
Male Model			
Path	Estimate	S.E.	Critical Ratio
Adolescent delinquency ←→ Delinquent peers	.319	.116	2.749**
Adolescent delinquency → parent stigmatization	.685	.798	.858
Adolescent delinquency → Job satisfaction	.034	.212	.162
Adolescent delinquency → Relationship quality	.624	.437	1.426
Parent stigmatization → Relationship quality	-.032	.041	-.791
Relationship quality → Desistance	.017	.019	.904
Job satisfaction → Desistance	.019	.039	.484
Delinquent peers → Desistance	.010	.009	1.067
Female Model			
Path	Estimate	S.E.	Critical Ratio
Adolescent delinquency ←→ Delinquent peers	.283	.189	1.503
Adolescent delinquency → parent stigmatization	.365	1.291	.283
Adolescent delinquency → Job satisfaction	.270	.298	.906
Adolescent delinquency → Relationship quality	-.062	1.392	-.044
Parent stigmatization → Relationship quality	-.137	.122	-1.123
Relationship quality → Desistance	.013	.012	1.069
Job satisfaction → Desistance	.009	.055	.160
Delinquent peers → Desistance	.002	.014	.168
***** significant at the p < .05 level ** significant at the p < .01 level			

High Rate Offenders: Frequency

Desistance Measure (DV): Change in offending (frequency) Model Chi-Square: 162.835, df= 14, p < .001 RMSEA: .228			
Male Model			
Path	Estimate	S.E.	Critical Ratio
Adolescent delinquency ←→ Delinquent peers	.720	.326	2.208*
Adolescent delinquency → parent stigmatization	1.124	.470	2.392*
Adolescent delinquency → Job satisfaction	-.093	.091	-1.013
Adolescent delinquency → Relationship quality	.002	.286	.008
Parent stigmatization → Relationship quality	-.069	.048	-1.426
Relationship quality → Desistance	.141	7.747	.018
Job satisfaction → Desistance	24.059	23.912	1.006
Delinquent peers → Desistance	-9.195	4.249	-2.164*
Female Model			
Path	Estimate	S.E.	Critical Ratio
Adolescent delinquency ←→ Delinquent peers	.856	.637	1.345
Adolescent delinquency → parent stigmatization	-.161	.856	-.188
Adolescent delinquency → Job satisfaction	-.024	.182	-.135
Adolescent delinquency → Relationship quality	.281	.865	.325
Parent stigmatization → Relationship quality	-.191	.141	-1.356
Relationship quality → Desistance	-9.663	3.683	-2.624**
Job satisfaction → Desistance	.820	17.848	.046
Delinquent peers → Desistance	-7.619	3.840	-1.984*
***** significant at the p < .05 level ** significant at the p < .01 level			
Desistance Measure (DV): True desistance (frequency) Model Chi-Square: 66.462, df= 14, p < .001 RMSEA: .135			
Male Model			
Path	Estimate	S.E.	Critical Ratio
Adolescent delinquency ←→ Delinquent peers	.720	.326	2.208*
Adolescent delinquency → parent stigmatization	1.124	.470	2.392*
Adolescent delinquency → Job satisfaction	-.093	.091	-1.013
Adolescent delinquency → Relationship quality	.002	.286	.008
Parent stigmatization → Relationship quality	-.069	.048	-1.426
Relationship quality → Desistance	.007	.015	.479
Job satisfaction → Desistance	-.049	.046	-1.055
Delinquent peers → Desistance	-.015	.008	-1.773
Female Model			
Path	Estimate	S.E.	Critical Ratio
Adolescent delinquency ←→ Delinquent peers	.856	.637	1.345
Adolescent delinquency → parent stigmatization	-.161	.856	-.188
Adolescent delinquency → Job satisfaction	-.024	.182	-.135
Adolescent delinquency → Relationship quality	.281	.865	.325
Parent stigmatization → Relationship quality	-.191	.141	-1.356
Relationship quality → Desistance	.027	.012	2.314*
Job satisfaction → Desistance	.055	.057	.952
Delinquent peers → Desistance	-.013	.012	-1.019
***** significant at the p < .05 level ** significant at the p < .01 level			

Low Rate Offenders: Severity

Desistance Measure (DV): Change in offending (severity) Model Chi-Square: 52.103, df= 14, p < .001 RMSEA: .059			
Male Model			
Path	Estimate	S.E.	Critical Ratio
Adolescent delinquency ←→ Delinquent peers	1.606	.207	7.751**
Adolescent delinquency → parent stigmatization	.316	.211	1.497
Adolescent delinquency → Job satisfaction	-.062	.046	-1.348
Adolescent delinquency → Relationship quality	.015	.102	.146
Parent stigmatization → Relationship quality	-.026	.025	-1.044
Relationship quality → Desistance	-.048	.057	-.854
Job satisfaction → Desistance	-.046	.125	-.365
Delinquent peers → Desistance	.000	.030	.004
Female Model			
Path	Estimate	S.E.	Critical Ratio
Adolescent delinquency ←→ Delinquent peers	1.419	.175	8.089**
Adolescent delinquency → parent stigmatization	.608	.225	2.704**
Adolescent delinquency → Job satisfaction	-.035	.056	-.631
Adolescent delinquency → Relationship quality	-.224	.187	-1.196
Parent stigmatization → Relationship quality	-.085	.041	-2.076*
Relationship quality → Desistance	-.015	.017	-.908
Job satisfaction → Desistance	.164	.055	2.962**
Delinquent peers → Desistance	-.002	.017	-.126
***** significant at the p < .05 level ** significant at the p < .01 level			
Desistance Measure (DV): True desistance (severity Model Chi-Square: 75.529, df= 14, p < .001 RMSEA: .076			
Male Model			
Path	Estimate	S.E.	Critical Ratio
Adolescent delinquency ←→ Delinquent peers	1.606	.207	7.751**
Adolescent delinquency → parent stigmatization	.316	.211	1.497
Adolescent delinquency → Job satisfaction	-.062	.046	-1.348
Adolescent delinquency → Relationship quality	.015	.102	.146
Parent stigmatization → Relationship quality	-.026	.025	-1.044
Relationship quality → Desistance	.008	.014	.571
Job satisfaction → Desistance	.033	.032	1.044
Delinquent peers → Desistance	-.009	.008	-1.174
Female Model			
Path	Estimate	S.E.	Critical Ratio
Adolescent delinquency ←→ Delinquent peers	1.419	.175	8.089**
Adolescent delinquency → parent stigmatization	.608	.225	2.704**
Adolescent delinquency → Job satisfaction	-.035	.056	-.631
Adolescent delinquency → Relationship quality	-.224	.187	-1.196
Parent stigmatization → Relationship quality	-.085	.041	-2.076*
Relationship quality → Desistance	.001	.007	.082
Job satisfaction → Desistance	.042	.023	1.786
Delinquent peers → Desistance	-.028	.007	-3.773**
***** significant at the p < .05 level ** significant at the p < .01 level			

Mid Rate Offenders: Severity

Desistance Measure (DV): Change in offending (severity) Model Chi-Square: 46.575, df= 14, p < .001 RMSEA: .096			
Male Model			
Path	Estimate	S.E.	Critical Ratio
Adolescent delinquency ←→ Delinquent peers	.300	.108	2.766**
Adolescent delinquency → parent stigmatization	1.136	.716	1.586
Adolescent delinquency → Job satisfaction	.024	.194	.121
Adolescent delinquency → Relationship quality	-.106	.453	-.233
Parent stigmatization → Relationship quality	-.067	.048	-1.387
Relationship quality → Desistance	-.122	.265	-.461
Job satisfaction → Desistance	1.173	.619	1.894
Delinquent peers → Desistance	-.085	.164	-.518
Female Model			
Path	Estimate	S.E.	Critical Ratio
Adolescent delinquency ←→ Delinquent peers	.463	.178	2.598**
Adolescent delinquency → parent stigmatization	2.482	1.324	1.874
Adolescent delinquency → Job satisfaction	-.490	.297	-1.653
Adolescent delinquency → Relationship quality	.092	1.514	.060
Parent stigmatization → Relationship quality	-.297	.123	-2.411*
Relationship quality → Desistance	.063	.035	1.766
Job satisfaction → Desistance	-.069	.181	-.385
Delinquent peers → Desistance	.023	.050	.453
***** significant at the p < .05 level ** significant at the p < .01 level			
Desistance Measure (DV): True desistance (severity) Model Chi-Square: 37.788, df= 14, p < .001 RMSEA: .082			
Male Model			
Path	Estimate	S.E.	Critical Ratio
Adolescent delinquency ←→ Delinquent peers	.300	.108	2.766**
Adolescent delinquency → parent stigmatization	1.136	.716	1.586
Adolescent delinquency → Job satisfaction	.024	.194	.121
Adolescent delinquency → Relationship quality	-.106	.453	-.233
Parent stigmatization → Relationship quality	-.067	.048	-1.387
Relationship quality → Desistance	.008	.015	.568
Job satisfaction → Desistance	.003	.034	.091
Delinquent peers → Desistance	-.007	.009	-.817
Female Model			
Path	Estimate	S.E.	Critical Ratio
Adolescent delinquency ←→ Delinquent peers	.463	.178	2.598**
Adolescent delinquency → parent stigmatization	2.482	1.324	1.874
Adolescent delinquency → Job satisfaction	-.490	.297	-1.653
Adolescent delinquency → Relationship quality	.092	1.514	.060
Parent stigmatization → Relationship quality	-.297	.123	-2.411*
Relationship quality → Desistance	.003	.009	.317
Job satisfaction → Desistance	.027	.045	.585
Delinquent peers → Desistance	-.035	.013	-2.773**
***** significant at the p < .05 level ** significant at the p < .01 level			

High Rate Offenders: Severity

Desistance Measure (DV): Change in offending (severity) Model Chi-Square: 135.870, df= 14, p < .001 RMSEA: .221			
Male Model			
Path	Estimate	S.E.	Critical Ratio
Adolescent delinquency ←→ Delinquent peers	.685	.341	2.007*
Adolescent delinquency → parent stigmatization	1.260	.488	2.583*
Adolescent delinquency → Job satisfaction	.009	.112	.079
Adolescent delinquency → Relationship quality	.032	.301	.107
Parent stigmatization → Relationship quality	-.080	.054	-1.494
Relationship quality → Desistance	.069	.238	.290
Job satisfaction → Desistance	-.105	.628	-.168
Delinquent peers → Desistance	.187	.132	1.418
Female Model			
Path	Estimate	S.E.	Critical Ratio
Adolescent delinquency ←→ Delinquent peers	1.576	.659	2.394*
Adolescent delinquency → parent stigmatization	.916	.748	1.225
Adolescent delinquency → Job satisfaction	-.134	.178	-.753
Adolescent delinquency → Relationship quality	-.235	.746	-.315
Parent stigmatization → Relationship quality	-.105	.135	-.779
Relationship quality → Desistance	.169	.132	1.288
Job satisfaction → Desistance	-.086	.546	-.157
Delinquent peers → Desistance	.227	.114	1.995
***** significant at the p < .05 level ** significant at the p < .01 level			
Desistance Measure (DV): True desistance (severity) Model Chi-Square: 59.773, df= 14, p < .001 RMSEA: .135			
Male Model			
Path	Estimate	S.E.	Critical Ratio
Adolescent delinquency ←→ Delinquent peers	.685	.341	2.007*
Adolescent delinquency → parent stigmatization	1.260	.488	2.583**
Adolescent delinquency → Job satisfaction	.009	.112	.079
Adolescent delinquency → Relationship quality	.032	.301	.107
Parent stigmatization → Relationship quality	-.080	.054	-1.494
Relationship quality → Desistance	.027	.013	2.114*
Job satisfaction → Desistance	.026	.034	.773
Delinquent peers → Desistance	-.016	.007	-2.235*
Female Model			
Path	Estimate	S.E.	Critical Ratio
Adolescent delinquency ←→ Delinquent peers	1.576	.659	2.394*
Adolescent delinquency → parent stigmatization	.916	.748	1.225
Adolescent delinquency → Job satisfaction	-.134	.178	-.753
Adolescent delinquency → Relationship quality	-.235	.746	-.315
Parent stigmatization → Relationship quality	-.105	.135	-.779
Relationship quality → Desistance	.030	.014	2.239*
Job satisfaction → Desistance	.053	.056	.948
Delinquent peers → Desistance	-.003	.012	-.245
***** significant at the p < .05 level ** significant at the p < .01 level			

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Aside from criminology, Tasha enjoys spending time on her music. At the annual ASC conference, Tasha plays the guitar and sings with Ron Akers and his Bluegrass Band. She is currently learning to play the fiddle. Tasha is also a self proclaimed Disney fanatic, a diehard Gators fan, and the proud owner of the cutest puggle on earth: Odin Disney Youstin.