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FAMILY STRUCTURE, PARENTING PRACTICES, AND SELF-CONTROL

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Abstract

Gottfredson and Hirschi's general theory of crime posits that low self-control is the primary cause of crime and other negative outcomes, including relationship and employment instability, inability to meet financial obligations, and risk of accidents and illness. According to self-control theory, inadequate parenting in early childhood is the primary cause of low self-control. Meanwhile, children in non-traditional family structures continue to experience worse outcomes than children who live with married biological parents. This trend persists as Americans become more likely to spend all or part of their childhoods outside this "traditional" household structure.

The current study examines the extent to which the parenting model of self-control theory explains differences in children's self-control by household structure. In particular, this study assesses whether parenting practices and self-control differ by household structure, including comparisons of married and cohabiting biological and social fathers as well as single mothers. In addition, the study also evaluates the extent to which Gottfredson and Hirschi's parenting model accounts for differences in self-control by gender among a sample of 9-year-old children.

The results provide partial support for self-control theory's parenting model, with children from married biological parent households possessing higher levels of self-control and experiencing better parenting than their peers; however, the self-control gap by household type is not fully explained by parenting practices. This study also uncovers evidence that the gender gap in self-control may vary by household structure.

Chapter 1: Introduction

With the publication of *A General Theory of Crime* (1990), Gottfredson and Hirschi's self-control theory emerged as one of the predominant explanations of crime. While most early studies of the theory tested its central argument—that low self-control is the primary individual-level cause of crime—criminologists have devoted more attention to other aspects of the theory within the last decade. This includes Gottfredson and Hirschi's assertion that low self-control is the product of ineffective parenting, which includes a failure on the part of parents to monitor, recognize, and punish deviant acts. Low self-control has consequences aside from a greater likelihood to engage in criminal behavior, to such an extent that Gottfredson and Hirschi (1990:94) indicate that crime is "often among the least serious consequences of a lack of self-control" with respect to quality of life. Some of these consequences include involvement in "accidents, illness, and death at higher rates;" "difficulty persisting in a job;" "difficulty acquiring and retaining friends;" "difficulty meeting the demands of long-term financial commitments (such as mortgages or car payments) and the demands of parenting" (Gottfredson and Hirschi 1990:94). Thus, the concept of self-control has broad applicability beyond the study of crime.

Meanwhile, family scholars have dedicated much attention to family structure trends and their impact on children from various types of households. Despite the increasingly normative nature of single-parent and blended families in the United States, children from such households continue to be at significant disadvantage relative to their counterparts from intact families. Children from divorced families are more likely to have behavioral problems, to show signs of psychological maladjustment, and

to have lower academic achievement and self-esteem (Clarke-Stewart and Brentano 2006). Furthermore, remarriage does not improve the well-being of children whose parents have divorced, as children in reconstituted families fare no better than ones in single-parent families (Cherlin 2010).

Using data on 9-year-old children and their families from the Fragile Families and Child Wellbeing Study, this dissertation attempts to link the aforementioned fields of research in criminology and sociology of family by answering several questions regarding the role of family structure in the development of self-control. Do parenting practices vary by household structure? Does children's self-control vary by household structure? If self-control varies by household structure, do differences in parenting practices fully explain this disparity in self-control? Furthermore, do girls have higher self-control than boys due to differences in parenting practices? These questions are explored for several types of households—those with married and cohabiting biological fathers, married and cohabiting social fathers (mother's romantic partner who resides in the same household as the child), and no fathers (single-mother households)—to examine and explain how and why household structure plays such a crucial role in children's outcomes.

Chapters 2-4 provide an overview of the existing research literature. Chapter 2 summarizes self-control theory and its widespread applicability. Chapter 3 presents detailed explanations of every aspect of Gottfredson and Hirschi's parenting model. This chapter also contains a review of the research literature corresponding to each component of this parenting model, including gender-related differences in parenting and self-control. Chapter 4 summarizes family formation trends in the United States and

examines how parenting practices and children's outcomes differ by household structure, according to family scholars. The extensive review of the research literature in Chapters 2-4 sets the foundation for the hypotheses presented in Chapter 5.

Chapter 6 details the methodology of the current study, including the sample, operationalization of variables, and statistical procedures. Chapter 7 presents the results of the current study. Chapter 8 includes a discussion of these results, including policy implications and future research directions.

Chapter 2: Self-Control Theory

In *A General Theory of Crime*, Gottfredson and Hirschi (1990: 232) declared low self-control to be "for all intents and purposes, *the* individual-level cause of crime." They rejected alternative explanations of crime, arguing that links between delinquency and other factors—such as delinquent peers, poor school performance, and unemployment—were spuriously related via the confounding variable of self-control. Given its simplicity, purportedly widespread applicability, and authors' bold claims, self-control theory invited intense research scrutiny almost immediately upon the book's publication, making *A General Theory of Crime* the most frequently cited criminology and criminal justice book in the 1990s and 2000s (Cohn and Farrington 1999; Cohn and Farrington 2008; Cohn and Farrington 2012).

In establishing their explanation for crime, Gottfredson and Hirschi (1990: 89-90) first outlined the characteristics of crime. They argued that criminal acts provide immediate and simple gratification of desires while providing few long-term benefits. Crimes are also exciting and risky while requiring little skill or planning. Furthermore, crimes usually result in pain or discomfort for the victim. Based upon this understanding of crime, Gottfredson and Hirschi (1990) then described the type of individuals that are more likely to engage in such behavior.

Gottfredson and Hirschi initially defined self-control as the "differential tendency of people to avoid criminal acts whatever the circumstances in which they find themselves" (p. 87). Hirschi (2004:543) later redefined self-control as the "tendency to consider the full range of potential costs of a particular act." Gottfredson and Hirschi (1990) describe several components of low self-control: 1) impulsivity, 2) lack of

diligence, tenacity, or persistence, 3) desire to take risks, 4) short-sightedness, 5) not possessing or valuing cognitive skills, and 6) self-centeredness and indifference or insensitivity to the suffering and needs of others. These traits may be identified at an early age and differences between individuals tend to persist throughout the life-course. Individuals who possess these characteristics of low self-control are more likely to engage in crime and analogous behaviors—acts that may not be criminal, but are similar in that they provide immediate gratification at the expense of negative long-term consequences (i.e., smoking, alcohol use).

Consistent with Gottfredson and Hirschi's claims, self-control has proven to be a consistent predictor of various criminal acts (Evans et al. 1997; Grasmick et al. 1993; Longshore et al. 2004; Longshore et al. 2005; Nagin and Paternoster 1993; Piquero et al. 2005). Likewise, research has linked low self-control to numerous types of analogous behaviors, including alcohol and substance abuse (Allahverdipour et al. 2006; Baron 2003; Piquero et al. 2002), risky sexual behavior (Love 2006), early sexual activity among adolescents (Hope and Chapple 2005), gambling (Arneklev et al. 1993), and texting while driving (Quisenberry 2015), buttressing Gottfredson and Hirschi's argument that the consequences of low self-control stretch well beyond the realm of criminal behavior. Once the strength of self-control as a predictor of crime and analogous behaviors had been established thoroughly by such studies, researchers shifted much of their focus away from the outcomes of self-control and toward other aspects of the theory, including the origin of self-control.

Chapter 3: Parenting Practices and Self-Control

Following a multitude of studies that tested self-control theory's core proposition—that self-control is the primary individual-level cause of crime—in the decade after the publication of *A General Theory of Crime* (1990), researchers began to investigate other aspects of the theory. One such aspect is the parenting mechanism through which self-control is acquired.

Gottfredson and Hirschi (1990) identify "ineffective child-rearing" as "the major 'cause' of low self-control." They identify the "minimum conditions" necessary to teach the child self-control: "someone must (1) monitor the child's behavior; (2) recognize deviant behavior when it occurs; and (3) punish such behavior" (Gottfredson and Hirschi 1990: 97). In addition, "all that is required to activate the system is affection for *or* investment in the child," as Gottfredson and Hirschi (p. 97) argue that "the person who cares for the child will watch his behavior, see him doing things he should not do, and correct him." This results in a child capable of exercising self-control—that is, " a child more capable of delaying gratification, more sensitive to the interests and desires of others, more independent, more willing to accept restraints on his activity, and more unlikely to use force or violence to attain his ends" (p. 97).

Parallel to the necessary conditions for instilling self-control, Gottfredson and Hirschi state that the model can fail at one of four places: 1) parents may not care for the child; 2) parents may not have the time or energy to monitor the child; 3) parents may not see anything wrong with the child's behavior; 4) parents may not have "the inclination or means to punish the child" (p. 97). As Gottfredson and Hirschi succinctly argue, "Many things can go wrong" (p. 98).

A growing—yet still relatively limited—body of literature has examined the various components of this child-rearing model. These studies lend varying degrees of support for each aspect of Gottfredson and Hirschi's child-rearing model, along with modest support for the model as a whole.

Supervision and Self-Control

Gottfredson and Hirschi (1990) use the concept of parental supervision to illustrate the connection between social control and self-control: such supervision "prevents criminal or analogous acts" (social control) and simultaneously "trains the child to avoid them on his own" (self-control). It is the latter concept — "supervision as internal control"—on which Gottfredson and Hirschi place their primary focus. They cite "the stronger tendency of those poorly supervised when young to commit crimes as adults" as evidence of the connection between supervision and self-control (p. 99); in other words, self-control is the missing link between poor supervision in childhood and misbehavior in adulthood.

In addition, Hirschi and Gottfredson (2005) state that when parents devote more attention to their children, they "reduce if not obviate the need for explicit punishment." In other words, "the greater the supervision, the less the punishment required" (p. 221). Neglect is "the principal cause of punishment, especially excessive punishment" and "the primary source of violence by the parent and of misbehavior by the child" (p. 221).

Parental supervision has been the most heavily tested aspect of Gottfredson and Hirschi's model. Numerous studies—ranging from those employing large national data sets in the United States and abroad to ones with smaller samples—have consistently

established a significant positive relationship between parental monitoring and self-control (Beaver 2011; Brauer et al. 2012; Chapple et al. 2005; Gibson et al. 2010; Hay 2001; Hope and Chapple 2005; Hope et al. 2003; McKee 2012; Meldrum 2008; Moon et al. 2014; Nofziger 2008; Pratt et al. 2004; Simons et al. 2007; Unnever et al. 2003; Unnever et al. 2006; Vazsonyi and Belliston 2007).

Several studies have employed National Longitudinal Survey of Adolescent Health (Add Health) data to examine the relationship between parental supervision and self-control, given the availability of proximate indicators of supervision in Add Health data sets. These questions range from items that ask children about the decisions they are allowed to make on their own (e.g., how much television they watch, what they watch on television, with whom they spend free time, the time they must be home on weekend nights) to items that gauge the extent to which parents are aware of their children's friends (e.g., whether the parent has met the child's best friend and best friend's parents, whether the parent knows which school the child's best friend attends). Supervision scales consisting of several of these Add Health items have produced mixed results. Beaver (2011: 96) found that low self-control "maintained a negative and statistically significant association with parental supervision" among a sample of twin siblings; in other words, among twin siblings, the one who reported less parental supervision also had lower levels of self-control. Conversely, Wright et al. (2008) failed to find a significant relationship between supervision and self-control among twin siblings in two waves of Add Health data. Likewise, in Boisvert et al.'s (2012) study of opposite-sex sibling pairs, differences in parental monitoring did not explain differences in self-control.

Researchers employing National Longitudinal Survey of Youth (NLSY) data have consistently found support for the relationship between parental supervision and self-control, regardless of whether parental supervision is measured via parents' responses (e.g., how many of their children's friends they know by sight and name, how often they know who their children are with when their children are not at home), children's responses (e.g., how often they tell their parents where they are and who they are with when the children are not at home), or a combination of parents' and children's responses. For example, Pratt et al. (2004) found that maternal supervision—based on mothers' responses—was a significant predictor of self-control at both ages 10 and 12, with poor maternal supervision being associated with lower self-control. Nofziger (2008) also employed maternal responses to measure the extent to which parents monitor their children's television viewing and the frequency to which their children are expected to perform various chores (e.g., cleaning his/her own room, making his/her own bed). Both parental expectations and monitoring television were significant positive predictors of child's self-control, supporting the hypothesis that "children are more likely to develop self-control when parents supervise their activities" (pp. 212-213). Meanwhile, Chapple et al. (2005) and Hope and Chapple (2005) measured parental monitoring via children's responses but reached a similar conclusion: parental monitoring was a significant predictor of self-control, as respondents with higher levels of parental monitoring possessed higher levels of self-control.

Hope et al. (2003) found that junior high and high school students whose parents were more aware of their dating partners and their whereabouts away from home had significantly higher levels of self-control, to such an extent that it fully mediated the

effect of the variable "single-parent home," which had been a direct predictor of lower levels of self-control before supervision was incorporated into the model. Likewise, other studies (Unnever et al. 2003; Unnever et al. 2006; Simons et al. 2007) have revealed a significant positive relationship between parental awareness of children's whereabouts when the children are away from home and children's levels of self-control.

Parental supervision remains a significant predictor of self-control even after controlling for a host of other factors. For example, Gibson et al. (2010)—using a sample of 2,003 children (ages 7 to 16) from the Project on Human Development in Chicago Neighborhoods (PHDCN)—found that parental supervision retained a significant positive effect on children's self-control, even after accounting for various neighborhood-level (e.g., concentrated disadvantage, residential stability, collective efficacy) and individual-level variables (e.g., primary caregiver's marital and employment statuses, socioeconomic status, parental warmth, parental hostility). This substantiates Gottfredson and Hirschi's argument regarding the primary role of parental supervision in the cultivation of self-control, regardless of the child's larger social environment.

Recognition of Deviant Behavior and Self-Control

Parental recognition of deviant behavior is not a given: "Remarkably, not all parents are adept at recognizing lack of self-control" (Gottfredson and Hirschi 1990:99). Gottfredson and Hirschi state that some parents allow a child to "do pretty much as he pleases without interference." They cite "extensive television-viewing" as an example

of "poor conduct standards," along with "failure to require completion of homework, to prohibit smoking, to curtail the use of physical force, or to see to it that the child actually attends school" (p. 99). In spite of these examples, as well as Gottfredson and Hirschi's assertion that "the research is not as good as it should be" (p.99) in examining this concept, recognition of deviant behavior has rarely been included in tests of Gottfredson and Hirschi's parenting model.

Several studies have incorporated measures of recognition, but such items are almost exclusively subsumed into a parental monitoring scale (Cochran et al. 1998; Phythian et al. 2008) or a more general parenting measure (Brauer et al. 2012; McCartan and Gunnison 2007), rather than treating recognition of deviant behavior as a standalone variable. Hay (2001:715) acknowledged the absence of such a measure in his research, dismissing it as a "limiting but still acceptable omission" on the grounds that previous research had "consistently identified monitoring and discipline as the two key aspects of effective parenting." Unnever et al. (2003) also noted the absence of this dimension of parenting in their own research, while citing Hay's (2001) omission and explanation as justification.

Consequently, Latimore et al.'s (2006) inclusion of recognition of misbehavior as a separate variable represents a rarity in the research literature. They measured recognition of misbehavior with a single item: "Generally, when I was growing up my parents or guardians recognized when I had done something wrong" (p. 351). Respondents were asked to indicate their level of agreement/disagreement on a four-point scale (mean = 3.60), with higher values corresponding to higher levels of recognition. Consistent with Gottfredson and Hirschi's caregiving model, recognition of

misbehavior was a significant positive predictor of both cognitively and behaviorally measured self-control. Conversely, recognition of misbehavior did not predict self-control among Moon et al.'s (2014) sample of South Korean middle-school students.

Wright and Beaver's (2005: 1180) examination of the factors contributing to self-control among young children from the Early Childhood Longitudinal Study, Kindergarten Class of 1998-1999 (ECLS-K) included a "family rules" measure composed of three items regarding television viewing: if there were rules for which television programs the child could watch, the amount of hours the child was permitted to watch television, and if rules were in place for how late or early the child was allowed to watch television. This family rules variable was a significant predictor of self-control at first grade in an Ordinary Least Squares (OLS) regression model but non-significant in a Hierarchical Linear Modeling (HLM) model. Although Wright and Beaver (2005) did not explicitly tie this family rules measure into Gottfredson and Hirschi's notion of recognition of misbehavior, it is consistent with the concept, given that Gottfredson and Hirschi cited unabated television-viewing as a specific example of failure to recognize deviant behavior. Hence, Wright and Beaver's (2005) research not only lends mixed support to the relationship between recognition of misbehavior and self-control, but also inadvertently highlights the dearth of research that both acknowledges and measures the concept of recognition of misbehavior.

Discipline and Self-Control

Gottfredson and Hirschi's (1990) failure to define explicitly what constitutes effective discipline has contributed to divergence in the operationalization of this

concept. They provide some general guidelines for the concept. First, they state that "disapproval by people one cares about is the most powerful of sanctions;" therefore, effective punishment usually involves "nothing more than explicit disapproval of unwanted behavior" (p. 99-100). In addition, they note that not all caretakers punish effectively, as "some are too harsh and some are too lenient" (p. 100-101); the former was partly clarified, as they described "yelling and screaming, slapping and hitting" as examples of insensitive and ineffective punishment. Furthermore, rewards for good behavior cannot compensate for failure to correct misbehavior.

More recently, Hirschi and Gottfredson (2005) have argued that the mutual affection between caregiver and child places "strict limits on the severity and nature of punishments available" since "excessive punishments would destroy the relationship." This makes corporal punishment "risky," as it "may sometimes exceed the tolerance level of the child and destroy attachment to its source" (p. 220). They also acknowledge the difficulty of disaggregating "care, monitoring and punishment," recognizing that these distinctions are "analytic" and "hard to separate from one another" (p. 221). In particular, care of children "implies supervision and discipline as much as it implies affection," and quality of supervision is usually measured "as much by the imposition of rules or discipline as by parental awareness of the child's whereabouts or behavior" (p. 221-222). Thus, when care and supervision are "subtracted from punishment," the actual techniques of discipline "may not be particularly important in and of themselves" (p. 222). Techniques such as yelling, nagging, scolding, shaking, slapping, or crying "virtually presuppose the failure of supervision" and "put at risk the affectional relation

between the parent and the child" (p. 222). Hence, severe punishment is likely to reflect a "breakdown or absence of intimate caretaker-child relationships" (p. 222).

Given the vague nature of Gottfredson and Hirschi's description of punishment, it has been left to the discretion of other researchers to distinguish appropriate techniques from ineffective disciplinary methods. If one juxtaposes Gottfredson and Hirschi's (1990:100) argument that effective punishment usually involves little more than "explicit disapproval" with their assertion that some parents are "too lenient" in punishing, it appears that simply expressing disapproval is not enough; however, it is unclear what types of punishment clear the leniency threshold. For example, it is ambiguous whether simply talking with the child would fall into the category of "too lenient." Thus, researchers have inherited the responsibility of determining what constitutes effective discipline in order to analyze the relationship between discipline and self-control. Despite varying interpretations and measures of discipline, these studies provide a clearer distinction of effective versus ineffective punishment.

Several studies have evaluated the relationship between physical punishment and self-control. For example, Nofziger (2008) found that children who were spanked at ages 6-7 had lower self-control at ages 10-11. Likewise, Chapple and Johnson's (2007) research revealed that the sons of mothers who used "non-positive discipline" (spanking or ignoring the child) were more impulsive. Furthermore, when adolescents were presented with the question of how their parents would react if the respondents did something their parents strongly disliked, Hay (2001) discovered that teens who anticipated physical discipline (slapping, hitting, kicking, pushing, grabbing, or shoving) possessed significantly lower levels of self-control.

Not all studies have found a significant negative relationship between physical punishment and self-control. Wright and Beaver (2005) measured physical punishment via responses to a hypothetical scenario item, asking parents what they would do if their children were to hit them. Contrary to expectations, there was no significant relationship between parents' willingness to hit or spank and their young children's self-control. On the other hand, Bennett et al.'s (2005) analysis of different items within the same ECLS-K (Early Childhood Longitudinal Study, Kindergarten) data set found that high frequency of spanking was a significant predictor of lower self-control. Likewise, another ECLS-K study found that physical punishment significantly increased the likelihood of a child belonging to a "severely impaired" subgroup—that is, children with the lowest levels of self-control and the highest levels of impulsivity (Vaughn et al. 2009).

Conversely, research indicates that simply talking with a misbehaving child has a significant positive effect on self-control (Perrone et al. 2004; Nofziger 2008). Research also suggests that a combination of positive discipline techniques—grounding, talking with the child, giving chores, sending the child to his room, taking away allowance and/or TV, sentencing the child to time-out—decreases children's impulsivity.

The consistency of punishment plays an important role in the formation of self-control. Several studies have revealed that children who reported receiving inconsistent punishment from their parents possessed significantly lower levels of self-control (Phythian et al. 2008; Unnever et al. 2003; Unnever et al. 2006). . Furthermore, fair

discipline—as perceived by adolescents—is also positively related to self-control (Hay 2001).

Overall, the research literature reveals several trends in the relationship between discipline and self-control. First, the frequency of punishment matters, as children who are punished consistently for misbehavior develop higher levels of self-control. In addition, the nature of discipline is also important: techniques that are too lenient (i.e., ignoring the child) or too harsh (i.e., spanking) are ineffective, whereas a method as mild as talking with the child has a significant positive effect on self-control. In other words, research should focus on specific types of punishments or corrective actions.

Attachment and Self-Control

Gottfredson and Hirschi's (1990:98) model states that "parental concern for the welfare or behavior of the child is a necessary condition for successful child-rearing." In discussing the significance of this attachment of the parent to the child, Gottfredson and Hirschi acknowledged that the evidence for this was "not as good or extensive as it could be" because it is "too often assumed that all parents are alike in their love for their children" (p. 98). They note Glueck and Glueck's (1950) finding that fathers of non-delinquents were "twice as likely to be warmly disposed toward their sons" and "one-fifth as likely to be hostile toward them," compared to fathers of delinquents; likewise, within the same sample, 28 percent of mothers of delinquents were characterized as "indifferent or hostile" toward their sons, compared to only 4 percent of mothers of non-delinquents. Furthermore, Gottfredson and Hirschi (1990:98) cite Burgess (1980) in arguing that there is evidence suggesting that "stepparents are especially unlikely to

have feelings of affection toward their children," thereby "adding in contemporary society to the likelihood that children will be 'reared' by people who do not especially care for them."

In a more recent discussion of the basic model of child rearing in control theory, Hirschi and Gottfredson (2005) described two types of affection: interest in the outcome and attachment to the caregiver. Interest in the outcome refers to the premise that "the parent, caretaker, or guardian must care enough about the child or the child's behavior to devote the immense amounts of time and energy that monitoring and discipline require" (p. 220). Parents who lack strong interest in the child are "much more likely than others to neglect the child and to resort to inappropriate disciplinary techniques" (p. 222). This concept of parental interest is identical to the aforementioned concept of attachment of the parent to the child; however, the significance of the child's attachment to the caregiver was not addressed by Gottfredson and Hirschi in *A General Theory of Crime* (1990). Their more recent work identifies attachment of the child to the caregiver as requisite to successful socialization. Just as the caregiver must have interest in the child, the child must have "affection or at least respect for the caregiver" (Hirschi and Gottfredson 2005:220). As mentioned in the previous section on discipline, these mutual affections set boundaries on the severity and nature of punishments, so as not to destroy the relationship between caregiver and child.

To address the shortage of evidence regarding the relationship between parental attachment and self-control, criminological researchers have given more attention to the former concept within the last decade. Consistent with Gottfredson and Hirschi's theory, these studies generally support the notion that attachment of the parent to the

child—whether from the child's or the parent's perspective—is a significant predictor of self-control.

Numerous Add Health studies have tapped into the concept of maternal attachment from the child's perspective, via items that ask "How close do you feel to your mother?" and "How much do you think your mother cares about you?" (Beaver 2008; Beaver 2011; Boisvert et al. 2012; Haynie 2001; Schreck et al. 2004; Wright et al. 2008). Similarly, NLSY studies have examined the relationship between maternal attachment and self-control (Chapple et al. 2005; Chapple and Johnson 2007; Hope and Chapple 2005), with measures of maternal attachment that include asking children how close they feel to their mothers, as well as items gauging the extent to which mothers communicate with children. Maternal attachment has been found to be a significant positive predictor of self-control (Beaver 2011; Boisvert et al. 2012; Chapple et al. 2005; Chapple and Johnson 2007; Hope and Chapple 2005), indirectly contributing to a lower likelihood of adolescent sexual activity (Hope and Chapple 2005) and substance abuse (Chapple et al. 2005).

Less attention has been given to the role of paternal attachment, though in one rare instance, Beaver (2011) found a significant relationship between paternal attachment and self-control. Studies that have combined parental attachment measures—ones incorporating both maternal and paternal attachment—have also yielded results supporting the relationship between parental attachment and self-control. For example, Cochran et al. (1998) found parental attachment had a significant positive effect on self-control, to such an extent that "warm, attentive parental attachments" were more important than "vigilant parental supervision" in the development of self-

control (p. 247). In their examination of the role of the family in self-control theory, Hope et al. (2003) included both a scale measuring the child's attachment to his/her parents as well as a scale tapping parental attachment to the child, with both scales incorporating paternal factors. Both types of attachment were strong predictors of self-control.

The concept of parental attachment has been given less attention than other aspects of Gottfredson and Hirschi's parenting model. In particular, a limited amount of research on self-control theory has accounted for the role of paternal attachment. Nonetheless, these studies provide compelling evidence that parental attachment is indeed a significant predictor of self-control.

Composite Parenting Measures and Self-Control

Many studies on parenting and self-control have not treated monitoring, recognition of misbehavior, discipline, and attachment as separate concepts. Instead, two or more of these concepts are often aggregated into a single parenting measure. Although such an approach does not shed light on the independent effects of each of these parenting aspects on self-control, these studies do allow for a holistic evaluation of Gottfredson and Hirschi's parenting model.

One such example is Gibbs et al.'s (1998) early test of the parenting aspect of Gottfredson and Hirschi's general theory. Using 20 items representing monitoring and 20 items representing discipline to create a 40-item parental management scale, Gibbs et al. (1998) confirmed that parental management during a respondent's freshman year

of a high school was a significant predictor of self-control, with higher levels of parental management corresponding to higher self-control.

Other research that has aggregated these various parenting measures has produced mixed results. Using a three-item parenting scale—one each for the dimensions of monitoring, recognition of misbehavior, and punishment—Morris et al. (2007) found that Gottfredson and Hirschi's parenting model was a significant positive predictor of self-control among White but not American Indian high school students; however, the researchers acknowledged that the lack of parental influence on self-control may have been related to their limited three-item parenting measure.

Brauer et al. (2012) created a "Gottfredson/Hirschi childrearing model" scale encompassing all four of the socialization elements—monitoring, recognition of misbehavior, discipline, and attachment—by combining responses to questions about experiences with childhood caregivers before age eight. Although this parenting measure was a significant positive predictor of self-control for the full sample, Brauer et al. (2012) only found limited overall support for Gottfredson and Hirschi's child-rearing model as the principle source of self-control, as the parenting scale was non-significant for two of the three research site samples (Lviv and rural Ukraine). Brauer et al. (2012: 385) cited the problematic nature of Gottfredson and Hirschi's lack of precision in defining "punishment," especially given previous evidence that physical punishment may have serious negative consequences on children's development. In a supplementary analysis, Brauer et al. (2012) found that higher perceived levels of punishment were associated with lower self-control, while higher levels of parental affection and monitoring were related to elevated levels of self-control. Thus, they

argued that punishment may partially negate the positive effects of affection, monitoring, and recognition of misbehavior in the development of self-control, thereby leading to the relatively weak performance of the composite Gottfredson and Hirschi parenting measure.

The mixed research findings involving aggregated parenting measures highlight the need to evaluate each aspect of the parenting model independently. In particular, Brauer et al.'s (2012) research not only underscores how evaluating each part of Gottfredson and Hirschi's parenting model separately reveals some of the complex dynamics of parenting, but also identifies potential issues in the operationalization of each concept.

Gender, Parenting, and Self-Control

According to Gottfredson and Hirschi (1990), the gender gap in criminal offending—males commit significantly more crime than females—is a result of "crime differences and differences in self-control that are not produced by direct external control" (p. 149). As an illustration of "obvious crime differences" between men and women, Gottfredson and Hirschi (p. 147) cite rape and prostitution as well as "equally obvious" differences in the sanctioning of deviant behavior, due in part to fear of greater negative consequences for the deviance of female children (i.e., unplanned teenage pregnancy). They also argue that gender differences in the use of force and fraud are "established early in life and…persist throughout life," which "implies a substantial self-control difference" between males and females (p. 147).

In accordance with Gottfredson and Hirschi's claims, studies have consistently found that males have lower levels of self-control (Boisvert et al. 2012; Boisvert et al. 2013; Burton et al. 1998; Chapple and Johnson 2007; Chapple et al. 2010; Gibbs et al. 1998; Gibson et al. 2010; Higgins and Tewksbury 2006; Hope and Chapple 2005; LaGrange and Silverman 1999; McKee 2012; Thijs et al. 2015; Tittle et al. 2003; Unnever et al. 2003; Unnever et al. 2006; Winfree et al. 2006; Wright and Beaver 2005). In addition, self-control has been found to partially or even fully mediate the relationship between gender and crime (Boisvert et al. 2012; Burton et al. 1998; Chapple et al. 2010; Higgins and Tewksbury 2006; LaGrange and Silverman 1999; Meldrum 2008; Perrone et al. 2004; Thijs et al. 2015; Tittle et al. 2003). Thus, the research literature supports the contention that males possess less self-control, and that this self-control differential at least partly explains why males commit substantially more crime than females.

In accordance with their theory, Gottfredson and Hirschi attribute the gender gap in self-control to differential parenting. Gottfredson and Hirschi (1990) contend that parents tend to monitor their daughters more closely than their sons, yet they recognize that gender differences remain when controlling for supervision. Thus, they suggest that the gender gap in self-control also results from differentials in elements such as the recognition of misbehavior and willingness to put forth the effort necessary to correct such behavior, though they fail to elaborate on this explanation.

Self-control research on gender and parenting has produced mixed results. Gibbs et al.'s (1998) research revealed no gender differences in parental monitoring or discipline; however, several other studies have found that females are subjected to

higher levels of parental supervision (Chapple and Johnson 2007; Chapple et al. 2010; McKee 2012), while males are more likely to receive physical punishment (Chapple et al. 2010) or non-positive discipline, such as being spanked or ignored (Chapple and Johnson 2007). Little research, let alone a consensus, exists regarding gender differences in attachment. Boisvert et al. (2012) found that males report higher levels of maternal attachment, whereas Chapple and Johnson's (2007) research indicates that females are more attached to their mothers. Chapple et al. (2010) found no gender differences in maternal attachment; however, maternal attachment had a differential impact on self-control, as it was a predictor of self-control among boys but not girls. In addition, Chapple et al.'s (2010) measure of physical punishment was a predictor of boys' self-control only. While monitoring and discipline partially mediated the gender gap, 66 percent of the gender gap in self-control was not explained by parenting practices. Given that only their research on males produced results consistent with the traditional self-control literature, Chapple et al. suggest a gendered etiology, as the pathways to self-control do not appear to be identical for males and females. While the results from their admittedly small sample should be treated with caution, Chapple et al.'s study signals the need for more careful treatment of gender in self-control formation studies.

Family Structure, Parenting, and Self-Control

In outlining the significance of family structure, Gottfredson and Hirschi (1990:103) state that the "percentage of the population divorced, the percentage of households headed by women, and the percentage of unattached individuals" in a

community are “among the most powerful predictors of crime rates.” Furthermore, they note children living with both biological parents have lower rates of offending than children living in “’broken’ or reconstituted homes” (p. 103). Though Gottfredson and Hirschi indicate that “all else being equal, one parent is sufficient,” noting that “proper training” may occur outside of intact households, they also state that “all else is rarely equal” (p. 103-104). In particular, single parents not only bear responsibilities that are shared in two-parent families, but they must often do so in “the absence of psychological or social support (p. 104). This not only results in the single parent having less time to devote to monitoring and punishment, but increases the likelihood of “negative, abusive contacts with her children” (p. 104). Reconstituted families are also disadvantaged compare to intact families, due to the lower likelihood of mutual affection between children and stepparents.

Despite Gottfredson and Hirschi’s (1990) claims regarding the role of family structure, the subject has been ignored in the otherwise growing body of research on parenting and self-control. Family structure is often omitted altogether in these studies. Even when included, family structure is usually treated as a dichotomous control variable, in which all respondents not from intact, two-biological parent households (Boutwell and Beaver 2010; Brannigan et al. 2002; Moon et al. 2014; Perrone et al. 2004; Unnever et al. 2006; Winfree et al. 2006) or all non-single parent households (Meldrum 2008) are grouped into a single category. Despite not being the focus of these studies, research indicates that children from two-biological parent household possess higher levels of self-control (Boutwell and Beaver 2010; Brannigan et al 2002; Perrone et al. 2004; Unnever et al. 2006). Likewise, there is evidence that children from single-

parent families have lower self-control than those from households with more than one adult present (Meldrum 2008). In a more nuanced treatment of family structure, Hope et al.'s (2003) research included dummy variables for both single-parent families and stepfamilies. Hope et al. (2003) found that adolescents from single-parent homes had lower levels of self-control; however, this relationship was fully mediated by parental monitoring and attachment. Phythian et al. (2008:78) similarly categorized family structure into three categories—intact, reconstituted, and single-parent—noting that "the 'broken versus intact' dichotomy" typical of criminology research is "not a sufficient operational definition of family structure." In this study, parental monitoring did not have a significant effect on self-control among the sample as a whole; however, the authors found a statistically significant interaction between parental monitoring and family type. This revealed that parental monitoring was a significant positive predictor of self-control control among children from reconstituted and single-parent families but not for children from intact families.

This limited body of research suggests that self-control is indeed related to family structure, as posited by Gottfredson and Hirschi; however, the process by which family structure produces self-control has been almost entirely overlooked. The dire need for such research—specifically, the extent to which family structure contributes to differences in the parenting practices that, in turn, produce disparities in self-control—is the impetus for this current study.

Chapter 4: Family Structure

In the quarter-century since the publication of *A General Theory of Crime*, the American family has changed significantly. Shifting patterns of marriage, remarriage, cohabitation, and non-marital childbearing have resulted in children being increasingly likely to live outside a household with married biological parents. Consequently, children are now more likely to experience living in alternative family structures beyond single-parent and stepparent households.

Marriage

Women's median age at first marriage was 27.1 years old in 2015, compared to 21.1 in 1975 and 24.5 in 1995 (U.S. Census Bureau 2015). The share of ever married women aged 18-49 has decreased from 73 percent in 1989 to 60 percent in 2014; however, the drop in the share of ever married women is largest among younger women—only 46 percent of women aged 25-29 in 2014 were ever married, compared to 71 percent of women in this age group in 1989—indicating that the decline in ever married women results from "postponement rather than a retreat from marriage" (Lamidi 2015a). Although women of all races and ethnicities have experienced a decline in marriage, African Americans have experienced the most drastic drop in the share of ever married women, from 56 percent in 1989 to 40 percent in 2014 (Lamidi 2015a). Likewise, the share of ever married women 18-49 has decreased among all educational attainment levels over the last quarter-century; however, women with less than a high school education have experienced the greatest decline—from 69 percent in 1989 to 52 percent in 2014—while women with at least a bachelor's degree have

undergone the smallest decline—from 74 percent in 1989 to 70 percent in 2014 (Lamidi 2015a).

Despite the retreat from—or the postponement of—marriage, attitudes toward marriage and divorce have remained relatively stable over several decades; instead, Americans have developed more favorable attitudes toward non-marital childbearing and cohabitation (Axinn and Thornton 2000). This indicates that Americans continue to place a high value on getting married and staying married, yet they have also become less likely to see marriage as the only acceptable relationship in which cohabitation and child-rearing may occur. Cherlin (2004; 2009) has argued that the practical importance of marriage has declined while its symbolic significance remains high. This is consistent with research on working and lower-middle class cohabitors, which indicates such groups no longer see marriage as a path to financial stability; instead, financial stability has become a prerequisite for marriage, and marriage, in turn, is now often seen as a status symbol signifying such an accomplishment (Smock et al. 2005). The increasingly prominent role of socioeconomic standing in marriage formation is supported by the fact that women with at least a bachelor's degree are now far more likely to be ever married, whereas just a quarter-century ago women with a high school degree surpassed college-educated women in marriage experience (Lamidi 2015a). Given that African Americans experience more socioeconomic disadvantage, the growing importance of economic factors also helps explain the increasing racial gap in marriage (Raley et al. 2015).

Remarriage

Although the remarriage rate has decreased over the last 25 years, remarriage remains common (Payne 2015). According to the American Community Survey, 42 percent of recent marriages are second marriages for at least one spouse (Lewis and Kreider 2015). As a result of high levels of remarriage and non-marital childbearing, 26 percent of marriages include stepchildren (Stykes and Guzzo 2015). Among remarried stepfamilies, the stepparent is usually male: 46 percent of such families includes only a stepfather, 31 percent includes both a stepfather and stepmother, and 23 percent includes only a stepmother. Furthermore, stepchildren are more likely to live with a stepfather than a stepmother.

White women are more likely than African-American or Latina women to remarry (McNamee and Raley 2011). McNamee and Raley's (2011) research also suggests that education is positively associated with remarriage, which is consistent with older research regarding the importance of women's economic prospects in facilitating marriage (Sweeney 2002).

Cohabitation

The percentage of women (ages 19-44) who have ever cohabited nearly doubled, from 33 percent in 1987 to 65 percent in 2011-2013 (Manning and Stykes 2015). Cohabitation has become the most common pathway to marriage, with 69 percent of women cohabiting prior to first marriage in 2010-2013, compared to 46 percent in 1985-1989. An increase in post-marital cohabitation has partially offset the decline in the remarriage rate (McNamee and Raley 2011); however, cohabitation is often a precursor to remarriage as well, as nearly two-thirds of recently remarried women

cohabited with their husbands (Teachman 2008). The share of all current unions that are cohabiting unions also increased, from 10 percent in 1987 to 28 percent in 2011-2013 (Manning and Stykes 2015).

The share of women who have ever cohabited has increased substantially across racial and ethnic groups over the same period, but at different rates. Whereas African-American women were once more likely to have ever cohabited (36 percent in 1987, compared to 32 percent and 30 percent of White and Hispanic women, respectively), the share of African-American women who ever cohabited plateaued in the last decade. Conversely, the share of White and Hispanic women who ever cohabited has continued to increase steadily, such that 67 percent of White and 64 percent of Hispanic women ever cohabited by 2011-2013, compared to 59 percent of African-American women.

Cohabitation experience has also increased across all levels of educational attainment. Although women with some college education experienced the greatest increases, cohabitation nonetheless remains more common for less educated women. In 2011-2013, 76% of women without high school degrees had ever cohabited, compared to 58% of women with at least four years of college. Likewise, cohabiting families are more economically disadvantaged than married parent families: cohabiting social parent families and cohabiting biological parent families are nearly two and three times more likely, respectively, to live at or below the poverty line, compared to married biological parent families (Brown et al. 2016; Manning 2015). Prior research on fragile families indicates that the median income of cohabiting parent households is less than that of married parent households (Kalil and Ryan 2010).

In the last two decades, never married and previously married cohabiting couples have become more similar in terms of presence of children in the household (Lamidi 2015b). In 1995, 50 percent of previously married cohabiting couples lived with children, compared to 36 percent of never married cohabitors. By 2014, the share of previously married cohabiting couples with children in the household had dropped to 41 percent, while the proportion of never married couples living with children increased to 39 percent. Despite the seemingly converging paths of cohabitation and marriage, cohabiting families are less stable (Manning et al 2004; Hognas and Thomas 2016; Osborne et al. 2007; Osborne and McLanahan 2007). Osborne et al. (2007) found that compared to children born to married parents, children born to cohabiting parents have more than five times the risk of experiencing their parents' separation during their first three years. Even after controlling for demographics, economics, relationship quality, and family complexity, cohabiting parents were still over two and a half times as likely to separate within three years of the child's birth. For White children born to cohabiting parents, a subsequent marriage may significantly increase family stability to a level that matches the stability enjoyed by children born in marriage; however, marriage after birth does not provide any such increase in stability for Hispanic and African-American families (Manning et al. 2004).

Non-Marital Childbearing, Non-Traditional Family Structures, and Family Transitions

Cohabitation allows couples to enter into parenthood without first overcoming barriers to marriage, including economic stability (Edin and Reed 2005; Smock et al. 2005). Thus, concurrent with the proliferation of cohabitation, non-marital childbearing

has become increasingly common in the last thirty years. The proportion of births to unmarried mothers under age 40 doubled between 1980 and 2013, from 21 percent to 43 percent; however, this trend was driven almost entirely by increases in the share of births to cohabiting mothers (from 6 percent to 25 percent), as the share of births to single mothers changed very little (from 15 percent to 18 percent) (Manning et al. 2015). Shares of non-marital childbearing—and births to cohabiting mothers, in particular—increased among African-American, Hispanic, and White mothers, with the latter two groups experiencing more drastic increases. Likewise, shares of births to unmarried mothers increased significantly across all levels of educational attainment, primarily due to increases in cohabiting births across every level of educational attainment; however, non-marital childbearing remained far more common among less educated women. For example, non-marital childbearing only accounted for 11 percent (eight percent cohabiting, three percent single) of all births for college-educated women under age 40, compared to 68 percent (41 percent cohabiting, 27 percent single) of births for women who did not finish high school (Manning et al. 2015).

Cohabitation has become a normal context in which to bear and raise children, although children born to cohabiting parents face a greater likelihood of experiencing the dissolution of their parents' unions (Bianchi 2014). Depending on the outcome of the relationship, the cohabitational path to parenthood can result in a child being raised in a number of household types, including married or unmarried biological parents, a married or unmarried social parent, or a single parent. Despite the increase in the share of births to cohabiting parents, only three percent of minor children in the United States live with two biological cohabiting parents (Payne 2013). This suggests that for

unmarried couples that have a child together, cohabitation is rarely a long-term arrangement; instead, most of these relationships either dissolve or transition into marriage.

The increasing popularity of cohabitation is reflected in the nomenclatural complications it has created for family scholars. Twenty years ago Bumpass et al. (1995) proposed that the definition of stepfamilies be expanded to include cohabitation with a child of only one partner. A decade later, Cherlin (2004:849) noted that cohabitation has "created an additional layer of complexity in stepfamilies." In recent years, the term "social father" has been used in reference to a mother's romantic partner who is not her child's biological father (Berger et al. 2008; Berger and Langton 2011; Bzostek 2008; Cancian and Meyer 2014). Whereas the term "stepfather" may imply a marital union, "social father" may refer to a married or unmarried romantic partner of the child's mother. Given that it is becoming more common for these couples to live together outside the context of marriage, it is important to draw a clear distinction between married and cohabiting non-biological fathers. To avoid the ambiguous marital implications of the term "stepfather," the current study uses the terms "married social father" and "cohabiting social father" in reference to mothers' resident romantic partners.

The majority of American children (59 percent) live with two married biological parents (Payne 2013). The second-most common family type is the single-parent family: 24 percent of children live in such households, with 21 percent in single-mother families and three percent in single-father families. Five percent of children live in a married stepparent family, while four percent live with a cohabiting social parent. Only

three percent of children live with two cohabiting biological parents. Children's family structures vary widely by race: 71 percent of White children live with both biological parents (69 percent married, 2 percent cohabiting), compared to 60 percent of Hispanic children (54 percent married, 6 percent cohabiting) and 33 percent of African-American children (30 percent married, 3 percent cohabiting). Conversely, 49 percent of African-American children live with a single mother, compared to 25 percent of Hispanic children and 13 percent of White children (Payne 2013).

Although the majority of children live with married biological parents, a substantial portion of children are raised outside of such households. Furthermore, as noted by Susan Brown (2010: 1066), family structure simply "provides a snapshot of children's living arrangements" rather than capturing the entirety of family experiences over the course of childhood. Hence, while fewer than 10 percent of children may live in a cohabiting household at a given point in time (Payne 2013), 40 percent of American children will have spent at least part of their lives in a cohabiting household by age 12 (Manning 2015). Thus, it is imperative to consider the impact of family instability on children as their families transition through multiple types of living arrangements. As previously mentioned, children born to unmarried parents are especially at risk of experiencing multiple family transitions (Osborne and McLanahan 2007). The growing popularity of non-traditional family types warrants an examination of outcomes experienced by children in these families and raises questions of whether differences in parenting practices can account for discrepancies in children's outcomes.

Children's Outcomes and Parenting Practices by Family Structure

Children living with both biological parents have better outcomes, with respect to physical health, cognitive skills, behavior, and emotional well-being (Amato 2005; Bass and Warehime 2011; Harknett 2008; Hofferth 2006; Langton and Berger 2011; Schmeer 2012). Children living in other two-parent family types—including blended and cohabiting families with social fathers—have more emotional and behavioral problems, lesser cognitive skills, and lower levels of school engagement (Berger and McLanahan 2015; Carlson 2006; Manning and Lamb 2003; Nelson et al. 2001; Ram and Hou 2003). Cohabiting biological parents do not appear to confer the same type of advantage as married biological parents, as children living with cohabiting biological parents are more similar to their counterparts from cohabiting stepfamilies than those from married biological parent households (Thomson and McLanahan 2012). Furthermore, research suggests that children born outside of marriage to parents who subsequently marry have more behavioral problems than children born to married parents (Carlson 2006). However, Brown (2004) found that controlling for economic resources rendered the gap between children from married and cohabiting biological parent families nonsignificant, although differences persisted between two-biological-parent married families and other family types.

Some research indicates that children living with a cohabiting social parent have worse educational and cognitive outcomes than children in married stepfamilies (Brown 2006; Manning and Lamb 2003; Sweeney 2010). Children living with a biological mother and her cohabiting partner have outcomes that are more similar to children from single-mother families than to children living with a married stepparent (Sweeney 2010); however, Brown (2006) found that formalizing a cohabiting stepfamily into a

married stepfamily did not improve children's well-being relative to stable cohabiting stepfamilies. Other studies suggest that child outcomes are similar, regardless of whether a parent remarries or enters into a cohabiting stepfamily, with neither arrangement improving children's well-being, relative to residing in a single-mother household (Brown 2004). Manning and Lamb (2003) found that teenagers living with a stepfather fared better than children of single mothers in terms of delinquency and grades; however, this difference was mediated by mother's marriage history, as single mothers experienced fewer stable, marriage-like relationships. Nelson et al.'s (2001) research suggests that the impact of a blended family structure may vary by race. In their study, White and Hispanic teenagers living in blended families fared neither better nor worse than those living in single-mother families in terms of behavioral outcomes; however, African-American teenagers in blended families were less likely to have emotional and behavioral problems than their single-mother family counterparts (Nelson et al. 2001).

In general, family structure transitions are associated with negative outcomes, including increases in antisocial behavior and decreases in academic achievement (Brown 2004; Brown 2006; Cavanagh and Fomby 2012; Fomby 2013; Fomby and Bosick 2013; Lee and McLanahan 2015; Magnuson and Berger 2009; Mitchell et al. 2015). The nature of the transition matters, as research suggests that the transition out of a two-parent family has a greater negative impact than the transition into a two-parent family (Lee and McLanahan 2015). Transitioning from a cohabiting stepfamily into a single-mother family may not be harmful, whereas moving from a single-mother family into a cohabiting stepfamily may decrease adolescent well-being (Brown 2006).

However, Mitchell et al. (2015) found that the entrance of a biological father into a household was associated with a decrease in children's antisocial behavior. These findings suggest that the entrances and exits of biological and social fathers may need to be examined as unique transitional categories.

Family structure and stability are related, yet distinct concepts with independent effects, as illustrated by the research of Waldfogel et al. (2010). They found that children raised by stable single or cohabiting parents were at less risk of negative cognitive, behavioral, and health outcomes than children raised by unstable single or cohabiting parents; however, stability and structure impacted children in different ways. In particular, family instability mattered more than family structure for children's cognitive and health outcomes, while growing up with a single mother mattered more than instability for behavior problems. This illustrates the importance of considering both family structure and family stability when assessing the impact of family dynamics on children's outcomes.

Although it has been established that children's outcomes vary based on family structure and stability, it is less clear why this relationship exists. One potential explanation is that children who live in non-traditional household structures—or who experience one or more family transitions—do not receive the same parenting quality as children born to, and raised by, married biological parents. Most research indicates that parenting quality is higher in families with married biological parents, compared to those with social fathers (Berger 2007). In particular, children living with married biological parents experience higher levels of parental engagement (Carlson and Berger 2013; Hofferth 2006). Stepparents experience higher levels of parenting stress than

biological parents (Shapiro 2014). In addition, family transitions are associated with higher levels of maternal stress and lower quality mothering, including harsh parenting techniques (Beck et al. 2010; Osborne and McLanahan 2007). Parenting stress, in turn, is associated with less open parent-child communication (Ponnet et al. 2013), lax and overreactive parenting practices (harsh verbal commands and physical punishment), and problematic child behavior (Guajardo et al. 2009). Although substandard parenting is more common in mother-partner families, income has a strong protective effect, such that parenting improves as income rises (Berger 2007). Increased income may influence the amount of time and money that can be devoted to caregiving (Berger 2007).

Some studies employing the Fragile Families data set have produced results that are inconsistent with prior research. For example, Berger and McLanahan (2015) found that married biological fathers were less engaged with their children than cohabiting biological fathers and married and cohabiting stepfathers, while Berger et al. (2008) found that married social fathers engaged in higher quality parenting practices than married biological fathers. One potential explanation offered by researchers is that these findings are the product of newer partnerships, which raises questions of whether "high-quality parental relationships and parenting behaviors persist over time" in such families (Berger and McLanahan 2015:1010).

An important factor in the quality of parenting a child receives is the level of the biological father's involvement, even when the father does not live with the child. Both the level of biological father involvement and its impact vary, based on a number of factors. A child's gender may affect level of involvement, with boys more likely to have highly involved fathers (Carlson 2006; King et al. 2004); however, higher father

involvement appears to be equally beneficial for boys and girls (Amato and Gilbreth 1999; Carlson 2006). Father involvement matters more when the father lives with the adolescent (Carlson 2006). Likewise, marital status at birth influences involvement, as non-marital childbearing has been linked to lower levels of father involvement (King et al. 2004). Non-resident father involvement varies by education and race: less educated White fathers have the lowest levels of involvement, and more educated White fathers have the highest levels of involvement, whereas minority father involvement varies less by education level (King et al. 2004). Similarly, previous research has found that family disruption has more negative consequences for Whites than for African Americans or Hispanics (McLanahan and Sandefur 1994).

A review of the research literature within sociology of the family highlights the extent to which the research from criminology lacks nuanced treatments of family structures and processes. This is especially problematic for criminological theories in which family is a central factor, such as self-control theory. It is necessary to recognize that even children who live with their biological mothers often grow up in multiple household types, and that variations in parenting practices within each family structure may contribute to differences in self-control, which may be crucial to explaining disparities in children's outcomes by family type.

Chapter 5: Hypotheses

In accordance with Gottfredson and Hirschi's theory, it is expected that children who live with married biological parents possess higher levels of self-control due to higher-quality parenting practices—such as monitoring, recognition of misbehavior, discipline, and attachment—compared to children who live with cohabiting biological parents, a biological mother and social father (a stepfather or an unmarried romantic partner who resides in the same household as the mother and child), or a single mother.

It is expected that girls possess higher levels of self-control and receive higher higher-quality parenting—especially higher levels of monitoring—compared to boys, as Gottfredson and Hirschi claim; however, based on the existing research literature, it is anticipated that gender differences in self-control persist, independent of parenting practices.

In addition, this dissertation will include within-group comparisons of biological father households and social father households by marital status. It is expected that children who live with married biological parents enjoy higher-quality parenting and higher levels of self-control, while children from married and cohabiting social father households do not differ significantly on these factors; in other words, children who live with a social father (married or cohabiting) or cohabiting biological father are similarly disadvantaged, relative to children who reside with married biological parents. Furthermore, it is anticipated that children from single-mother households experience better parenting and possess higher levels of self-control when the child's biological father is involved in the child's life.

Chapter 6: Methodology

Sample

The data for this study are from the Fragile Families and Child Wellbeing Study, a longitudinal study of nearly 5,000 children born in the United States between 1998 and 2000. Fragile Families data were employed for the current study for several reasons. In parsing a sample of children and their families by five household structure groups, as the current study does, a researcher runs the risk of creating one or more groups too small for meaningful comparisons. In tracking such a large number children and their families from birth—including a disproportionately high number at risk of experiencing family disruptions—Fragile Families is one of the few data sets sizable enough to provide a substantial number of cases for each household structure. The longitudinal design of Fragile Families also allows researchers to capture potential family transitions in close proximity to when they occur at several points in early childhood. Furthermore, Fragile Families includes detailed data pertaining to parenting practices and children's behavioral issues—critical components to any examination of parenting and self-control.

Due to the study's focus on fragile families—those at greater risk of breaking up and living in poverty—the sample includes a disproportionately high percentage of children from such families, with nearly three-fourths of the children in the sample born to unmarried parents. Fragile Families includes interviews with mothers and fathers at birth (Wave I), followed by parent interviews when children are ages one (Wave II), three (Wave III), five (Wave IV), and nine (Wave V). In addition to mother and father surveys, Wave V also includes in-home interviews of focal children. Although data

from Waves I-IV are employed in the construction of variables measuring family instability, the current study focuses primarily on children and their families at Wave V. In particular, the current study compares children that live with their biological mothers all or most of the time, by the presence of a married or cohabiting biological father, a married or cohabiting social father, or no resident father (single-mother households). Although 3,400 children participated in Wave V interviews, cases with missing responses on pertinent variables (i.e., no response on all 25 self-control items), deceased or unknown biological fathers, and family household structures outside the scope of the current study (i.e., those in which the child does not live primarily with his/her biological mother; same-sex social parents) are not included in the current analysis, resulting in a working sample of 2,678 children and their families.

Control variables

The analyses include variables controlling for age, gender, race/ethnicity, mothers' education, and family poverty.

[Table 1 about here]

Age

Child's age for the current study is based on age at the time of the mother's Wave V interview. The mean age of children in the working sample is 9.27 years (S.D.=0.356). Children range from 8.66-10.88 years of age, with 73.3% of the sample between the ages of 9.00-9.99 years.

Gender

Child's gender is treated as a dummy variable with male=1 and female=0. The mean of the sample for the dummy variable Male is 0.528 (S.D.=0.499) indicating that 52.8% of the children are male and 47.2% are female.

Race/ethnicity

Two dummy variables are included as measures of race and ethnicity: African-American and Hispanic (non-African-American). For the dummy variable African-American, children with at least one biological parent that identified as African-American at Wave I are coded as 1, while all others are coded as 0. The mean of the variable African-American is 0.494 (S.D.=0.500), indicating that 49.4% of the sample is African-American. For the dummy variable Hispanic, children with at least one biological parent that identified as Hispanic (and neither parent identifying as African-American) are coded as 1, while all others are coded as 0. The mean of the variable Hispanic is 0.311 (S.D.=0.463), indicating that 31.1% of the sample is Hispanic. Questionnaires also allowed mothers and fathers to identify as "other" on items measuring race; however, since only 42 (1.6%) non-African-American, non-Hispanic children in the study had at least one parent identify as such, they are included with Whites in the reference category. Therefore, the sample is 49.4% African-American, 31.1% Hispanic, and 19.5% White and all other races.

Mother's education

Mother's education is determined by the mother's level of educational attainment at the time of the Wave V interview. Mother's education is treated as a dummy variable: mothers who graduated from college or completed some college or technical school are coded as 1, and all other respondents are coded as 0. The mean for the mother's education dummy variable is 0.578 (S.D.=0.494), indicating that 57.8% of mothers in the sample completed at least some college or technical schooling.

Family poverty

Family poverty is based on a categorical variable measuring mother's poverty at Wave V. This constructed variable in the Fragile Families data set is based on mother reports of household size and income. For the current study, this item has been recoded into a family poverty dummy variable: mothers whose household incomes place them below the official poverty threshold (as established by the U.S. Census Bureau) are coded as 1, and all other respondents are coded as 0. The mean for the family poverty dummy variable is 0.359 (S.D.=0.478), indicating that 35.9% of children in the sample live in households below the poverty line.

Family structure variables

[Table 2 about here]

Household structure

The child interview in Wave V includes an item indicating whether the child has seen his/her biological father in the last year, with three response categories: 1) yes, because the biological father lives with the mother and child; 2) yes, but the biological

father does not live in the same household; 3) no. In addition, for cases in which the biological father does not live in the same household as the mother and child, there is an item indicating whether the mother has a husband or partner in the household. For the current study, these two items have been employed in the construction of two dummy variables: the resident social father dummy variable is coded as 1 for all cases in which the child and mother live with a male partner who is not the child's biological father, while the single mother dummy variable is coded as 1 for all cases in which the mother does not have a partner residing in the same household as the mother and child. The reference category for each variable consists of cases in which the biological father lives with the mother and child (coded as 0 for both dummy variables). The means for the resident social father and single mother dummy variables are 0.172 (S.D.=0.378) and 0.396 (S.D.=0.489), indicating that 17.2% of children in the sample reside with a social father and biological mother, while 39.6% have neither a biological father nor a social father residing with their biological mothers. The remaining 43.2% of the sample consists of children who live with both biological parents.

The mother interview in Wave V includes a question regarding the mother's relationship status with the biological father; in cases in which the biological father and mother are not married and do not live together, mothers are also asked about current relationships with other partners, including whether they are married and/or living together. These items, in conjunction with the resident social father and single mother dummy variables, are used in the creation of several additional dummy variables that distinguish resident biological and social fathers by marital status. These variables reveal that 33.1% of children in the sample live with married biological parents, while

10.1% reside with a cohabiting biological father. Meanwhile, 7.4% of children in the sample live with a married social father (stepfather), while 9.8% reside with a cohabiting (unmarried) social father. Thus, the vast majority of resident biological fathers among the sample population are married (76.6%) rather than cohabiting (23.4%), whereas resident social fathers are more likely to be cohabiting (57%) than married (43%) (figures not shown in Table 2).

Father contact

The household structure variables do not capture an important family dynamic: involvement of biological fathers, which may occur even when fathers do not live in the same households as their children. As previously mentioned, the child interview in Wave V includes an item indicating whether the child has seen his/her biological father in the last year. This item is used to create a biological father contact dummy variable, whereby cases are coded as 1 if the child has seen his/her biological father in the last year, regardless of the father's residence (all children residing in the same household as their biological fathers are coded as 1). The mean for the biological father contact dummy variable is 0.797 (S.D.=0.402), indicating that 79.7% of children in the sample have seen their biological fathers in the previous year. In particular, 58.1% of children with a resident social father and 66.8% of children in single-mother households have seen their biological fathers in the past year (figures not shown in Table 2).

It should be noted that this father contact variable does not measure the extent of biological father involvement, as it makes no distinction between children who see their fathers everyday and those who have seen their fathers once in the previous year, nor

does it gauge the quality of those interactions. Rather, it is simply a family structure measure indicating whether a child's biological father has had any recent presence in the child's life.

Family transitions

Biological mother's living situation—specifically, whether she 1) lived with the child's biological father (married or cohabiting), 2) lived with a romantic partner (married or cohabiting) unrelated to the child (social father), or 3) lived alone—can be determined at each wave based on mother interviews. This allows for the computation of biological father and social father exits and entrances between waves. More than one transition may occur between waves. For example, if a mother lives with the child's biological father in one wave and reports living with a different partner in the next wave, then it is coded as two transitions: a biological father exit and a social father entrance. In addition, transitions may occur independently of changes in marital status. For example, if a mother reports being married to the biological father but not living together after being married and living together in the previous wave, then this is coded as a biological father exit. Furthermore, if the same mother reported being married to the biological father and living together in a subsequent wave, then this is coded as a biological father exit. However, in order to simplify comparisons of Wave V family structures, the working sample for the current study excludes a small number of families in which the mother reported being married to the biological father at Wave V yet the child reported not residing in the same household as the father. Thus, all currently married fathers—biological and social—in the study lived in the same households as the

children at the time of Wave V interviews. It should be noted that the transition coding method for this study may undercount the number of transitions that occur between waves, especially among families who did not participate in every wave.

Unique variables were created for biological father exits, biological father entrances, social father exits, and social father entrances. Only 2.2% of the sample experienced two biological father exits; likewise, fewer than 2% experienced multiple biological father entrances, social father exits, or social father entrances. Therefore, dummy variables were created for each category. As shown in Table 2, the mean for the biological father exit dummy variable is 0.386 (S.D.=0.487), indicating that 38.6% of children in the sample experienced at least one biological father exit. Other transitions were less common: 21.2% of children experienced at least one biological father entrance after birth, 10.8% experienced at least one social father exit, and 26.6% experienced at least one social father entrance.

In addition, to capture the cumulative effect of multiple transitions, a total family transitions variable (mean=0.995; S.D.=1.045) has been created by summing exits and entrances across every wave, with the total number of changes capped at three (only 2.8% of the sample reported more than three total transitions).

Family process variables

[Table 3 about here]

Maternal monitoring

The child interview in Wave V includes a set of items indicating how closely the respondent is supervised by his/her primary caregiver (in all cases in the working

sample, this is the child's biological mother). The current study employs a maternal monitoring scale composed of responses to four questions on the child interview:

(1) How often does your mom know what you do during your free time? (mean=2.170; S.D.=0.912)

(2) How often does your mom know which friends you hang out with during your free time? (mean=2.212; S.D.=1.021)

(3) How often does your mom ask you about things that happened when you are not with her? (mean=1.9461; S.D.=1.036)

(4) How often does your mom make you tell her where you are going and with whom before you go out? (mean=2.452; S.D.=0.968)

Valid responses to these items include "never," "sometimes/not very often," "often," and "always." Responses were initially scored from "never" = 0 to "always" = 3; however, for the current study responses have been reverse coded, so that higher scores reflect higher levels of monitoring, and transformed into standardized scores (to ensure that each item contributes evenly to the scale). The maternal monitoring scale is the sum of the standardized scores of the four items. As shown in Table 3, the mean for the maternal monitoring scale is 0 (S.D=2.411), with higher scores indicating higher levels of maternal monitoring.

Failure to recognize misbehavior

In accordance with Gottfredson and Hirschi's claim that allowing a child to watch an excessive amount of television constitutes parental failure to recognize problematic behavior, the current study measures parental failure to recognize

misbehavior via a child interview item asking respondents how much time they spend on a weekday watching TV and movies. Responses range from "none" (=0) to "more than 2 hours" (=4). This item has been recoded into a dummy variable, with respondents who watch more than two hours of TV coded as 1, while all others are coded as 0. The mean for the failure to recognize misbehavior dummy variable is 0.309 (S.D.=0.459), indicating that 30.9% of children watch TV excessively.

Parental discipline

The child interview in Wave V includes a series of questions pertaining to parental discipline received in the past year:

(1) How often your mom explained why something you did was wrong? (mean=2.234; S.D.=1.265)

(2) How often your mom sent you to your room, took away privileges, or grounded you? (mean=1.585; S.D.=1.120)

(3) How often your mom shouted, yelled, screamed, swore, or cursed at you? (mean=1.143; S.D.=1.383)

(4) How often your mom spanked or hit you? (mean=0.984; S.D.=1.171)

Valid responses to these items include "never" (=1), "less than once/month," "once or a few times/month," "few times/week," and "every/almost every day" (=4). These survey items are used to create four measures of discipline: explanation (based on item 1), grounding (item 2), negative verbal (item 3), and physical (item 4). These measures are represented by four dummy variables: for each type of discipline, cases are coded as 1 if the mother ever engaged in such practices in the past year and 0 if the mother never

employed such techniques. As shown in Table 3, the mean for the mother explanation dummy variable is 0.859 (S.D.=0.348), indicating that 85.9% of the children in the sample reported that their mothers had explained why something they did was wrong at least once in the past year. Likewise, 74.2% of children had been grounded, sent to their rooms, or revoked of privileges by their mothers; 59.7% of children received negative verbal discipline from their mothers; 50.7% of children were subjected to physical discipline from their mothers.

The child interview includes identical sets of parental discipline items pertaining to involved biological fathers (regardless of residence) and resident social fathers. These items were also used to create dummy variables measuring biological father and social father discipline among children with involved biological fathers and social fathers, respectively. As shown in Table 3, the mean for the biological father explanation dummy variable is 0.706 (S.D.=0.456), indicating that 70.6% of children with involved biological fathers reported that these fathers had explained why something they did was wrong at least once in the past year. Likewise, 50.8% of children with involved biological fathers had been grounded, sent to their rooms, or revoked of privileges by these fathers; 44.1% of children received negative verbal discipline from their biological fathers; 35.7% of children were subjected to physical discipline from their biological fathers. The mean for the social father explanation dummy variable is 0.702 (S.D.=0.458), indicating that 70.2% of children with resident social fathers reported that these fathers had explained why something they did was wrong at least once in the past year. Likewise, 55.3% of children with resident social fathers had been grounded, sent to their rooms, or revoked of privileges by these fathers; 52.8% of children received

negative verbal discipline from their social fathers; 26.3% of children were subjected to physical discipline from their social fathers.

To allow for comparisons of parenting practices across all household structures, composite variables have been created for each type of discipline (explanation, grounding, negative verbal, physical) by computing the averages of applicable measures of parental discipline. For example, for a child who lives with his/her mother and a social father while also having an involved biological father, parental explanation is the average of mother explanation, biological father explanation, and social father explanation; conversely, for a child who resides with a single mother and has not seen his/her biological father in the last year, parental explanation is equal to mother explanation.

Parental attachment

The child interview in Wave V includes an item asking how close the respondent feels to his/her mother, with responses ranging from "extremely close" to "not very close." An identical question is asked of children regarding their biological fathers (if seen in the previous year) and social fathers (if applicable). Responses to these items were initially scored from 1 = "extremely close" to 4 = "not very close;" however, for the current study responses have been reverse coded, so that higher scores reflect higher levels of attachment. As shown in Table 3, children reported the highest levels of attachment to mothers (mean=3.664; S.D.=0.692), followed by attachment to biological fathers (mean=3.357 S.D.=0.955) and attachment to social fathers (mean=3.071; S.D.=0.999).

In addition, a composite parental attachment variable (mean=3.510; S.D.=0.670) has been created by computing the average of applicable measures of parental attachment for each case. For a child who lives with his/her mother and a social father while also having an involved biological father, parental attachment is the average of all three types of attachment; conversely, for a child who resides with a single mother and has not seen his/her biological father in the last year, parental attachment is equal to maternal attachment.

Self-control

The primary caregiver self-administered questionnaire from Wave V of Fragile Families contains 111 questions taken from the behavioral, emotional, and social problems scales of Archenbach and Rescorla's Child Behavior Checklists. For the current study, 25 of these items are used to create a self-control scale. Many of these items are similar to those used to measure children's self-control in studies employing earlier waves of Fragile Families data (Boutwell and Beaver 2010a; Boutwell and Beaver 2010b). The 25 items are shown in Table 4.

[Table 4 about here]

For each item, the primary caregiver (for all cases in the current study, this is the child's biological mother) was asked to report whether the statement was "not true," "somewhat or sometimes true," or "very true or often true" for her child. Responses to these items were initially scored from 1 = "not true" to 3 = "very true or often true;" however, for the current study responses have been reverse coded, so that higher scores

reflect higher levels of self-control. Mean values for each self-control scale item (after recoding) are displayed in Table 4.

The self-control scale is composed of the sum of the standardized scores of the 25 items. The mean for the self-control scale for the sample is 0 (S.D=13.889). Cronbach's alpha for the linear composite of the 25 items is 0.91, indicating a high degree of reliability. Reliability could not be improved by eliminating any of the items.

A principal component analysis was conducted to determine the dimensionality of the four items measuring self-control. The principal components analysis indicates a single factor, with the first four eigenvalues of 7.84, 1.67, 1.40, 1.15, and all remaining eigenvalues under one. A scree test further indicates a single factor, with a substantial break between the first and second eigenvalues, compared to the breaks between subsequent eigenvalues.

Plan of Analysis

The relationships between family structure, parenting practices, and self-control can be examined through analysis of variance (ANOVA), Tukey's honest significant difference (HSD) test, and weighted least squares (WLS) regressions.

A series of one-way ANOVA will be conducted to determine whether family processes—monitoring, failure to recognize misbehavior, explanation, grounding, negative verbal discipline, physical discipline, and attachment—and self-control differ by household structure. ANOVA can be used to identify whether there are differences between groups—in this instance, household structures—but it does not indicate which specific groups differ for each variable. Therefore, Tukey's (HSD) test will be

employed in conjunction with ANOVA to determine specific between-group differences. Tukey's HSD test is a pairwise comparison technique that is used to determine which specific pair(s) of groups contributed to a significant F-ratio in ANOVA (Weinstein 2010:267). For example, if one-way ANOVA indicates that maternal monitoring significantly differs by household structure, a Tukey post-hoc test will reveal which pairs of household structures account for this difference. In other words, Tukey's test will determine whether there is a significant difference between married biological father households and married social father households in maternal monitoring.

A series of t-tests will be conducted to determine whether family processes, biological father contact, and self-control differ by gender. These comparisons of means will reveal whether boys and girls are parented differently.

In addition, the effect of family structures and processes on self-control will be evaluated in a series of Weighted Least Squares (WLS) regressions: a full sample analysis, followed by comparisons of biological father households, social father households, and single-mother households. Due to the design of the Fragile Families sample (i.e. oversampling of non-marital births) and attrition over waves, every wave of the Fragile Families data set includes weights that were constructed in order to produce unbiased statistical estimates. When employed, these weights make Fragile Families data nationally representative. The current study uses national level mother weights at Wave V in WLS regression analyses. Family structures and processes will be regressed on self-control, with the expectation that family structure has no direct effect on self-control, independent of family process variables; in other words, the relationships

between family structures (household structure, biological father contact, and family transitions) and self-control should be fully mediated by parenting practices (monitoring, recognition, discipline, and attachment). Conversely, it is expected that the relationship between gender and self-control persists, independent of other factors.

Chapter 7: Results

ANOVA

[Table 5 about here]

Table 5 displays mean values for self-control and each of the family process variables—monitoring, recognition of misbehavior, explanation, grounding, negative verbal discipline, physical discipline, and attachment—by household structure. To assess whether family processes and self-control differed by household structure, a series of one-way analyses of variance (ANOVA) were conducted. F-statistics and p-values for these analyses are displayed in Table 5. The F-statistic is a ratio of the variability between groups compared to the variability within groups. If between-group variability is large relative to within-group variability, then it is less likely that the means of each group are equal, as indicated by corresponding p-values.

As shown in Table 5, the F-statistic was significant for every one-way ANOVA. In other words, there was a statistically significant difference ($p<.05$) between households in mean levels of maternal monitoring ($F=2.507$, $p=.040$), failure to recognize misbehavior ($F=8.166$, $p=.000$), explanation ($F=12.040$, $p=.000$), grounding ($F=8.543$, $p=.000$), negative verbal discipline ($F=4.115$, $p=.003$), physical discipline ($F=5.026$, $p=.000$), attachment ($F=20.891$, $p=.000$), and children's self-control ($F=14.609$, $p=.000$). These ANOVA results are consistent with the hypothesis that family processes and self-control differ by household type.

Full sample Tukey's HSD test

[Table 6 about here]

Table 6 includes mean differences in self-control and family process variables between every combination of household pairs. For example, Table 5 shows that married social father households had a mean of 0.313 for maternal monitoring, compared to a mean of -0.345 for cohabiting social father households; the difference between these two values—0.658—is reflected in Table 6. Furthermore, the p-value obtained from Tukey's HSD test indicates that this mean difference in maternal monitoring between married social father and cohabiting social father households was statistically significant (p=.031) at the p<.05 level. Hence, children from married social father households experienced significantly higher levels of monitoring than children from cohabiting social father households. With respect to maternal monitoring, no other pairwise comparisons of household structures revealed significant mean differences.

Tukey's HSD test indicates that two household pairings significantly differed in failure to recognize misbehavior: married biological father households had significantly lower mean scores than cohabiting social father (mean difference = -0.151; p=.000) and single-mother households (mean difference = -.0.96; p=.000). Since failure to recognize misbehavior is a dummy variable for which a value of "1" denotes excessive TV viewing, higher scores reflect lower levels of recognition of misbehavior. Thus, the aforementioned mean differences indicate that parents of children in married biological father households were significantly more likely to recognize misbehavior than their counterparts in cohabiting social father and single-mother households.

Children from married biological father households were significantly more likely to report that their parents explained why something they did was wrong, compared to married social father (mean difference = 0.090; p=.006), cohabiting social

father (mean difference = 0.129; p=.000), and single-mother (mean difference=0.085; p=.000) households. In addition, cohabiting biological father households had significantly higher levels of parental explanation than cohabiting social father households (mean difference = 0.089; p=.018).

Children from married biological father households were significantly more likely to have been grounded, compared to children from cohabiting social father (mean difference = 0.129; p=.000) and single-mother households (mean difference = 0.087; p=.000). These household pairs also differed in negative verbal discipline, but in an unexpected direction: children from married biological father households were more likely to experience such treatment than their counterparts from cohabiting social father (mean difference = 0.083; p=.046) and single-mother households (mean difference = 0.071; p=.002). Children from married biological father households were also more likely to experience physical discipline than children from cohabiting social father households (mean difference = 0.124; p=.000). Children from cohabiting social father households were also significantly less likely to experience physical discipline than children from single-mother households (mean difference = -0.125; p=.000).

As expected, Tukey's HSD test indicates that children from married biological father households reported significantly higher levels of parental attachment than those from cohabiting biological father (mean difference = 0.157; p=.006), married social father (mean difference = 0.247; p=.000), cohabiting social father (mean difference = 0.387; p=.000), and single-mother (mean difference = 0.164; p=.000) households. In addition, children from cohabiting biological father households reported higher levels of parental attachment than their counterparts from cohabiting social father households

(mean difference = 0.231; p=.001). Children from cohabiting social father households also reported significantly lower levels of parental attachment than children from single-mother households (mean difference = -0.223; p=.000). Thus, children from cohabiting social father households had significantly lower levels of attachment than children from all other household types, with the exception of married social father households (although mean parental attachment was greater in married social father households, the mean difference was not significant). Given the considerably lower mean for social father attachment relative to maternal attachment and biological father attachment as previously shown in Table 3, it appears that lower levels of average parental attachment among children from social father households were largely attributable to weak attachment to social fathers.

Tukey's HSD test indicates that children from married biological father households possessed significantly higher levels of self-control than children from all other household structures. There were no significant mean differences in self-control between any other household structure pairings. This is consistent with the general overall trend illustrated by these ANOVAs and Tukey's HSD test comparisons: between-group differences in family processes and self-control by household structure (as indicated by ANOVAs) primarily reflected a distinction between families with married biological parents and all other household structures (as shown by pairwise comparisons in Tukey's HSD test).

Although children who live with married biological parents experienced different family processes and possess higher self-control, this series of one-way ANOVAs and Tukey's HSD tests cannot be used to determine whether differences in

self-control were due to differences in family processes. The relationships between household structure, family processes, and self-control may be mediated by other factors. For example, differences in family processes and self-control among children from married biological parent households may be due to socioeconomic advantages enjoyed by these families. Therefore, the results of multivariate analyses that reveal the simultaneous effects of household structure, family processes, and demographics on self-control are included later in this section.

T-tests by Gender

[Table 7 about here]

Table 7 includes mean values for self-control and family process variables by gender with corresponding t-test results. These t-test results indicate that males and females differed significantly in self-control and across all parenting measures. The significant mean differences for maternal monitoring and failure to recognize misbehavior reveal that parents supervised girls more closely and were more likely to recognize girls' misbehavior, as indicated by boys' higher levels of excessive television viewing. In addition, girls reported higher levels of parental attachment. Meanwhile, boys were more likely to be subjected to all forms of discipline—explanation, grounding, negative verbal punishment, and physical punishment.

Girls possessed significantly higher levels of self-control, based on maternal reports. As with ANOVA and Tukey's HSD test, this series of t-tests cannot be used to determine whether differences in self-control are due to differences in family processes, in spite of the significant mean differences by gender across all of these measures.

Therefore, what follows are multivariate analyses that will reveal whether the relationships between gender, family processes, and self-control are mediated by other factors.

WLS regressions, full sample

[Table 8 about here]

Table 8 displays the results of a series of weighted least squares regression analyses for the full sample. To assess whether self-control varied by household structure and biological father contact, independently of demographic factors, in Model 1 self-control was regressed on four household structure dummy variables—cohabiting biological father, married social father, cohabiting social father, and single mother—and the biological father contact dummy variable, controlling for age, gender, race/ethnicity, mother's education, and family poverty. To determine whether any of the effects in Model 1 were mediated by family transitions, Model 2 was formed by adding measures of four family transition types—biological father exit, biological father entrance, social father exit, and social father entrance—to the variables included in Model 1. Similarly, to assess whether the cumulative number of family transitions (rather than specific types of transitions) mediated any of the effects in Model 1, Model 3 was formed by adding a measure of total family transitions to the variables included in Model 1. Models 4-6 are identical to Models 1-3, aside from the inclusion of several parenting variables: maternal monitoring, failure to recognize of misbehavior, explanation, grounding, negative verbal punishment, physical punishment, and attachment. This allows for the assessment of whether effects observed in Models 1-3 were mediated by parenting

practices in Models 4-6. In particular, Models 4-6 may help determine whether relationships between household structure and self-control or gender and self-control in Models 1-3 were explained by differences in parenting practices.

As shown in Table 8, the significant negative gender coefficients indicate that boys possess lower levels of self-control than girls. This relationship persisted across all models, indicating that parenting practices did not explain gender differences in self-control. Several other demographic factors were significant predictors of children's self-control across all models for the full sample. Hispanic ethnicity was a positive predictor of self-control, relative to Whites. Socioeconomic status played a role in the formation of self-control, independent of other factors: mother's college attendance was positively related to her child's self-control, while poverty was negatively related to self-control.

Of particular interest in this study is variation in self-control by household structure. In Models 1 and 4, all alternatives to married biological father households—cohabiting biological father, married social father, cohabiting social father, and single mother—were significant negative predictors of self-control. This also held true in Models 3 and 6, when total family transitions were taken into account; however, when specific types of family transitions (Models 2 and 5) were considered, all household structures ceased to be significant, with the exception of cohabiting biological father households. Instead, in Models 2 and 5, two specific family transitions were significantly related to self-control: a biological father exit was negatively related to self-control, while a social father exit was positively related to self-control. This suggests that the relationships between social father and single-mother households and self-control were mediated by particular family transitions. Specifically, significantly

lower levels of self-control for social father and single-mother households in Models 1, 3, 4, and 6 may have largely been a product of biological father exits experienced by children in such households.

Biological father contact was positively related to children's self-control across all models for the full sample. Although cohabiting biological father household status was negatively related to self-control across all models, it should be noted that all children in such households had contact with a biological father. Thus, the inclusion of biological father contact as a separate dummy variable may have exaggerated the magnitude of the negative relationship between cohabiting biological father households and self-control. Although this would not offset the self-control gap between married and cohabiting biological father households, it may explain why cohabiting biological father household status remained significant in Models 2 and 5, whereas single-mother and both social father household types were no longer significant in those models.

As shown in Models 4-6, three measures of parenting practices were consistently significant predictors of self-control. As expected, maternal monitoring and parental attachment were positively related to self-control, while negative verbal discipline (shouting, yelling, screaming, swearing, or cursing) was negatively related to self-control. Nonetheless, these and other parenting practices did not fully mediate the relationship between family structure and self-control. Thus, the WLS regression models presented in Table 8 indicate that the significantly higher levels of self-control enjoyed by children from married biological parent households could not be fully explained by parenting practices or socioeconomic advantages.

WLS regressions, resident biological father households

[Table 9 about here]

Table 9 displays the results of a series of weighted least squares regression analyses for children in the sample with resident biological fathers. The six regression models for biological father households were structured in the same pattern as the full sample regression models, only with slight differences. Since all children in the sample who had a resident biological father also had a resident biological mother and no social father or non-resident biological father, it was feasible to examine maternal and paternal parenting practice measures as separate variables in this subgroup. This was less practical among other subgroups, in which respondents did not have an identical number of involved parents. For example, children in social father households varied in biological father contact, so examining practices by individual parent would have led either to the exclusion of children without involved non-resident biological fathers or a failure to include the parenting practices of non-resident fathers. Another difference from the full sample analyses was the exclusion of variables pertaining to social father household structures and the biological father contact dummy variable (all children living with a biological father had biological father contact, thus making the variable unnecessary for analyses of this subgroup). Furthermore, every child in this subgroup who experienced a social father entrance also experienced a social father exit (since the child and his/her mother now live with the biological father), thus making separate social father entrance and exit dummy variables redundant. Instead, such social father entrances and exits were represented by a single dummy variable for the biological father household subgroup.

As shown in Table 9, gender was not significant in any of the six models, indicating that there was no difference in self-control by gender among children residing with biological fathers. Only two demographic variables were significant predictors of children's self-control across all models for biological father households: family poverty and African-American. As with the full sample, family poverty was a consistent negative predictor of self-control; however, mother's education was not significant in any of the six weighted regression models for biological father households. African-American children in this subgroup possessed significantly lower levels of self-control than White children, independent of other demographic factors and parenting practices, across all models. Age was a significant positive predictor of self-control in Models 1-3, indicating that older children have higher levels of self-control; however, the relationship between age and self-control appeared to be mediated by parenting practices in Models 4-6.

The cohabiting biological father dummy variable split the biological father household subgroup into two categories: those living with cohabiting biological fathers, and those residing with married biological fathers. The significant negative coefficient of the cohabiting biological father dummy variable across all models indicates that children who live with married biological parents had a self-control advantage that was not fully mediated by differences in parenting practices, family transitions, or demographics.

Model 2 in Table 9 indicates that both types of biological father transitions were significant predictors of self-control: a biological father exit was positively related to self-control, whereas a biological father entrance was negatively related to self-control.

Only the biological father entrance dummy variable remained significant after the addition of parenting practices in Model 5. It should be noted that a biological father entrance, as coded in the current study, only occurred when the biological father resided with the child and biological mother after not doing so in a previous wave. If the biological father lived with the mother and child at birth, this was not coded as an entrance. Meanwhile, any biological father exit experienced by a child in this subgroup was accompanied by one of two possibilities: 1) the child experienced two biological father entrances after birth (one entrance prior to the exit, and one entrance following the exit), or 2) the child resided with the father at birth (this is not counted as an entrance), then the father exited and later returned. In either case, every biological father exit was accompanied by an entrance in this subgroup (also, since each specific transition was measured by a dummy variable, there was no difference between one and two biological father entrances); however, the converse is not true. If a biological father did not live with the child and mother at birth but later moved into the same household without subsequently exiting, this was simply an entrance without an exit. Perhaps most importantly, if a child lived with his/her biological father at Wave 5 (the current point of analysis for this study) and had never experienced a biological father entrance, this indicates that the child had lived continuously with his/her biological father at since birth. Thus, the negative relationship between biological father entrances and self-control may be indicative of an advantage experienced by children who always resided with their biological fathers.

Maternal monitoring (the only version of parental monitoring available in the study) was a significant positive predictor of self-control across Models 4-6. Likewise,

both maternal and paternal attachment were consistent positive predictors of self-control in biological father households; however, no additional maternal parenting variables were significant, while two other paternal parenting variables—explanation and negative verbal discipline—were significant in Models 4-6. As expected, negative verbal discipline from a biological father was associated with lower self-control; however, the WLS regression results indicated that children whose biological fathers explained why they did something wrong also had lower self-control. Nonetheless, differences in parenting practices did not fully explain why children who lived with married biological parents possessed higher self-control than those who resided with cohabiting biological parents.

WLS regressions, social father households

[Table 10 about here]

Table 10 displays the results of a series of weighted least squares regression analyses for children in the sample with resident social fathers. The six regression models for social father households were structured in the same pattern as the full sample and biological father households, with slight differences. Since all children in the sample who had a resident social father experienced at least one social father entrance, the social father entrance dummy variable was excluded. Another difference from the resident biological father analyses is that the social father household models included the biological father contact dummy variable, which indicated whether the child had seen his/her non-resident biological father in the previous year. Children in social father households with involved non-resident biological fathers had three sets of

parenting measures for each form of discipline (explanation, grounding, negative verbal, and physical) and attachment—for the social father and both biological parents—while those without an involved biological father only had two sets of parenting measures. Therefore, composite parental variables were employed for each form of discipline and attachment in order to allow for comparisons between children with different numbers of involved parents, as previously explained in the methods section.

As shown in Table 10, gender was a significant predictor of self-control among children with resident social fathers, with boys possessing lower levels of self-control. This gender difference was not mediated by parenting practices. Three other demographic variables were significant predictors of children's self-control across all models for social father households: African-American, mother's education, and poverty. African-American children have higher levels of self-control than Whites. Mother's education was positively related to self-control, while family poverty was negatively related to self-control. The Hispanic dummy variable was a significant positive predictor of self-control only in Models 4-6, when parenting practices were taken into account. This suggests that White children may benefit more than Hispanics from parenting practices with respect to the development of self-control, as the gap between the two groups was non-significant when parenting practices were not included in the model.

The cohabiting social father dummy variable split the social father household subgroup into two categories: children living with cohabiting social fathers, and those

residing with married social fathers. All six regression models indicate there was no significant difference in children's self-control between these two groups.

Models 2 and 5 in Table 10 indicate that a social father exit was a significant positive predictor of self-control. It should be noted that among this social father household subgroup, every child with a social father exit had experienced at least two social father entrances (the entrance of the social father who exited, plus the entrance of the social father present at Wave 5). This added degree of instability makes the strong positive relationship between social father exits and self-control surprising.

Two parenting measures—failure to recognize misbehavior and parental attachment—were consistent predictors of self-control across Models 4-6 in Table 10. Parental attachment was a significant positive predictor of self-control, while the significant negative coefficients for failure to recognize misbehavior indicate that children in social father households who engaged in excessive television viewing had significantly lower levels of self-control. Two other parenting measures were significant in Model 4: negative verbal discipline was a negative predictor of self-control, while physical discipline was unexpectedly a positive predictor of self-control. However, the inclusion of family transition measured in Models 5 and 6 rendered these practices statistically insignificant. Although there were no differences between cohabiting and married social father households, it was noteworthy that parenting practices—which included measures for non-resident biological fathers—did not mediate the relationship between non-resident biological father contact and self-control.

<u>WLS regressions, single-mother households</u>

[Table 11 about here]

Table 11 displays the results of a series of weighted least squares regression analyses for children in the sample who live with single mothers. Since all children in this subgroup who experienced a social father entrance must have also experienced a social father exit (thus resulting in a single-mother household by Wave 5), there was a single dummy variable indicating whether the child had experienced both a social father entrance and exit. The single-mother household models included the biological father contact dummy variable, which indicated whether the child had a contact with a non-resident biological father in the previous year. Children in single-mother households with non-resident biological father contact had two sets of parenting measures for each form of discipline (explanation, grounding, negative verbal, and physical) and attachment—for both biological parents—while those without an involved biological father only had one set of parenting measures. Therefore, composite parental variables were employed for each form of discipline and attachment in order to allow for comparisons between children with different numbers of involved parents.

As shown in Table 11, gender was not significant in any of the six models, indicating that there was no difference in self-control by gender among children residing in single-mother households. Three demographic variables were significant predictors of children's self-control across all models for single-mother households: African-American, Hispanic, and mother's education. African-American and Hispanic children in single-mother households had significantly higher levels of self-control than Whites. Mother's education was again positively related to self-control; however,

poverty was not significant in any of the six regression models for single-mother households.

A biological father exit was a significant negative predictor of self-control in Model 2; however, this relationship was mediated by parenting practices in Model 5. This suggests that the lower level of self-control associated with biological father exits was due to lower quality parenting practices in these particular single-mother households. Meanwhile, Models 2 and 5 in Table 11 indicate that the combination of a social father exit and entrance was a significant positive predictor of self-control. Once again, biological father contact had a strong positive relationship with children's self-control across all models.

Four parenting measures—maternal monitoring, failure to recognize misbehavior, negative verbal discipline, and physical discipline—were consistent predictors of self-control across Models 4-6 in Table 11. As expected, maternal monitoring was a positive predictor of self-control, while both negative verbal and physical discipline were associated with lower self-control; however, the positive coefficients for failure to recognize misbehavior indicate that children in single-mother households who engaged in excessive television viewing actually had higher levels of self-control. Parental explanation was a positive predictor of self-control in Models 5 and 6.

Chapter 8: Discussion and Conclusion

The current study produced a number of findings regarding the role of the family in developing self-control. In this chapter, the most notable results are synthesized. This is followed by a discussion of the study's limitations, policy implications, and directions for future research.

Household Structure and Self-Control

One-way ANOVA revealed that all family processes and self-control varied significantly by household structure. Tukey's HSD test shed light on the ANOVA results by indicating which household pairs contributed to significant between-group differences for self-control and each of the family process variables. Pairwise comparisons of each of the five household structure types—married biological father, cohabiting biological father, married social father, cohabiting social father, single mother—across seven family process measures and self-control resulted in 80 pairwise combinations, of which 23 yielded significant differences. Most notably, 18 of the 23 (78%) significant mean differences involved married biological father households, despite such households only being involved in 40% of all pairwise comparisons. Thus, Tukey's HSD test indicates that there is a clear delineation between married biological father households and all other family arrangements. Married biological father households were significantly more likely than one or more other household types to recognize misbehavior (lower scores correspond to higher recognition of misbehavior), explain to their children why something the child did was wrong, and ground their children for deviant behavior. In addition, children from married biological father

households reported significantly higher levels of attachment to their parents compared to their peers from all other households. Unexpectedly, children from married biological father households were more likely to have experienced negative verbal and physical discipline than those from one or more other household types. In spite of those two disciplinary practices that one would expect to produce lower self-control, children from married biological father households possessed significantly higher levels of self-control. The results of Tukey's HSD test provide strong support for the hypotheses that children who live with married biological parents receive higher-quality parenting and enjoy higher levels of self-control than children from other households.

WLS regression analyses for the full sample provided additional evidence of the advantaged status of children from married biological father households. In four of the six regression models (Table 8), dummy variables for all other household types were significant negative predictors of self-control. Only in Models 2 and 5—which controlled for specific types of family transitions—did social father and single-mother household structures cease to be significantly related to self-control, although the significant negative relationship between cohabiting biological father households and self-control persisted in all models. The relationship between household structure and self-control for households without biological fathers (married and cohabiting social fathers, single mothers) was mediated by specific types of family transitions. A social father exit was a significant positive predictor of self-control while a biological father exit was negatively related to self-control. The relationship between social father exits and self-control was unexpected, as it was anticipated that such a transition would be neither particularly beneficial nor harmful. Conversely, the negative relationship

between a biological father exit and self-control is consistent with the body of research highlighting the negative impact of biological father exits on children's outcomes. Models 2 and 5 in the full sample regression analyses (Table 8) suggest that the relative disadvantage experienced by households without resident biological fathers is partly due to biological father exits, rather than an inherent disadvantage in these alternative household structures.

In the full sample WLS regression analyses, the relationships between household structure and self-control persisted, even after accounting for parenting practices. The gap in self-control by household structure is consistent with Gottfredson and Hirschi's theory; however, differences in parenting practices do not sufficiently explain this gap, contrary to Gottfredson and Hirschi's assertions. The self-control advantage enjoyed by children from married biological parent household exists independently of parenting practices, family transitions, and demographic factors

A comparison of biological father households was conducted to determine whether differences in self-control exist between married and cohabiting biological parent households. Tukey's HSD test indicated that children residing with married biological parents had significantly higher self-control than those living with cohabiting biological parents, and this was supported by WLS regression analyses of biological father households (Table 9). Children living with cohabiting biological parents possessed significantly lower levels of self-control across all models. Family transitions partially mediated the relationship between household structure and self-control in biological father households, with a biological father exit as a significant positive predictor of self-control (only in Model 2, as this was mediated by parenting practices

in Model 5) and a biological father entrance as a negative predictor of self-control. As previously addressed in the reporting of results, these seemingly backward results were related to coding nuances for this comparison group. Among the biological father household subgroup, children who did not experience a biological father entrance were ones who had lived with their biological fathers since birth. Thus, in this particular subgroup comparison, a biological father entrance was negatively related to self-control because it indicated a disadvantage for children who had not continuously lived with their fathers since birth. Meanwhile, the positive coefficient of the biological father exit dummy variable in Model 2 of the biological father household comparison (Table 9) is misleading because every biological father exit was followed by a biological father entrance in this subgroup. For this particular comparison group, experiencing both a biological father entry and exit may have had a more positive effect on self-control than just an entrance because the former indicated that the child resided with the father at birth or an early age and potentially resided with his/her father for a longer period of time, compared to a child whose father only entered the household at some point after the child's birth. As with the full sample comparison, the biological father household comparison confirmed that children residing with married biological parents possessed significantly higher levels of self-control, independent of parenting practices, family transitions, and demographic factors.

As hypothesized, Tukey's HSD test indicated that there was no significant difference in children's self-control between cohabiting and married social father households. This was substantiated in WLS regression analyses of social father households, which revealed no significant differences in self-control between

cohabiting and married social father households. The social father exit dummy variable was a significant positive predictor of self-control in both Models 2 and 5 of the social father household comparison (Table 10). In this subgroup, all children who experienced a social father exit also experienced multiple social father entrances. Thus, these results suggest that children in social father households who experienced multiple social father entrances (and at least one exit) possessed higher levels of self-control than those who only experienced a single social father entrance with no exit; however, this should be interpreted cautiously, as multiple social father entrances occurred in only 50 cases in the entire sample. While there was no appreciable difference between married and cohabiting social father households, non-resident biological father contact was a significant positive predictor of self-control for children in these households.

Consistent with the full sample and social father household regression analyses, biological father contact was significantly related to self-control among children residing in single-mother households, independent of parenting practices, family transitions, and demographic factors. Specific family transitions were also significantly related to self-control in the single-mother household subgroup. A biological father exit was a significant negative predictor of self-control in Model 2 (Table 11), although this relationship was mediated by parenting practices in Model 5, suggesting that biological father exits may be associated with decreases in parenting quality. A social father entrance and exit was a significant positive predictor of self-control for children in single-mother households. This is consistent with the full sample and social father household regression analyses, in which social father exits were significantly related to self-control.

These results indicate that children who live with married biological parents possess significantly higher levels of self-control. Meanwhile, children in other household types—cohabiting biological father, married or cohabiting social father, single mother—are disadvantaged with respect to self-control. For children with non-resident biological fathers, contact with a biological father is crucial to the development of self-control. Living with an unmarried biological father does not confer any additional advantage, as children residing with cohabiting biological fathers fare similarly to those with non-resident fathers.

Cherlin (2004) has argued that the major benefit of marriage is that it provides an "enforceable trust," as marriage requires a long-term public commitment, whereas cohabitation involves a private commitment that is easier to break. Marriage allows parents to make "relationship-specific investments in the couple's children—investments of time and effort that…would not be easily portable to another intimate relationship" (p. 855). This enforceable trust—the dynamics of which were not fully captured within this study's measures—may help explain why the children of married biological parents enjoy higher levels of self-control than children from other household structures.

Parenting and Self-Control

The results of the WLS regression analyses provide mixed support for Gottfredson and Hirschi's parenting model. No parenting measure was a significant predictor of self-control across all models of every comparison. Maternal monitoring was a significant positive predictor of self-control across all models for every household

comparison, with the exception of social father households. Parental attachment was a consistent positive predictor of self-control, with the exception of single-mother households. Negative verbal discipline was a significant negative predictor of self-control across all models for every household comparison, except social father households (negative verbal discipline was significant in Model 4 only); in biological father households, paternal negative discipline was significant, but maternal negative discipline was not. These results provide strong support for Gottfredson and Hirschi's arguments that monitoring and attachment are critical to the development of self-control, while harsh verbal discipline is antithetical to that goal.

Results were far less consistent with respect to other parenting practices. Failure to recognize misbehavior was significant only in social father and single-mother households, but in opposite directions: excessive television viewing was associated with lower self-control in social father households and higher self-control in single-mother households. Perhaps Gottfredson and Hirschi's example of failure to recognize misbehavior is an outdated and dubious measure; alternatively, watching many hours of television may be less of a problematic behavior for children from single-mother households, where more opportunities for unsupervised misbehavior may arise. As previously mentioned, researchers have had more difficulty measuring recognition of misbehavior than other aspects of Gottfredson and Hirschi's parenting model.

Explanation of misbehavior was significantly related to self-control in biological father and single-mother households, but in opposite directions: paternal explanation was negatively related to self-control in biological households, while parental explanation was positively related to self-control in Models 5 and 6 among the single-

mother household subgroup. One possibility for the unexpected negative relationship between parental explanation and self-control—and for the statistically insignificant relationship in most other instances—is that the explanation variable may have tapped into actual levels of misbehavior. In other words, paternal explanation was not causing lower self-control; rather, it was measuring misbehavior that resulted from lower self-control.

Physical punishment was a positive predictor of self-control in Model 4 of the social father household subgroup comparison; however, it was not significant in Models 5 and 6. Furthermore, given the small size of the social father household group (n=461), this finding should be interpreted cautiously. On the other hand, physical punishment was a consistent negative predictor of self-control in single-mother households. The latter is consistent with Gottfredson and Hirschi's theory. Grounding had no effect on self-control.

The findings of this study with respect to parenting practices and self-control were comparable to previous research. Monitoring and attachment were predictors of self-control more consistently than other aspects of parenting. Recognition of misbehavior is rarely measured, thus presenting little basis for comparison. The various types of discipline produced mixed results, with only harsh verbal discipline producing the expected effect on a fairly consistent basis.

Gender and Self-Control

Previous research has consistently shown that males possess substantially lower levels of self-control than females. This was supported by a t-test and WLS regression

analyses for the full sample and social father households; however, gender was not a significant predictor of self-control for children residing with social fathers or single mothers.

Consistent with previous research, t-test results indicated that girls possessed significantly higher levels of self-control. T-tests also showed that boys and girls were subjected to different parenting practices. As expected, girls experienced higher-quality parenting, with respect to higher levels of maternal monitoring, recognition of misbehavior, and parental attachment; however, boys were more likely to experience all forms of discipline, including those expected to be helpful (explanation, grounding) and harmful (negative verbal and physical punishment).

Self-control differed by gender in WLS regression analyses for the full sample and social father households; however, as predicted, parenting practices did not mediate the relationship between gender and self-control in these comparisons. Unexpectedly, gender was not a significant predictor of self-control for children residing with biological fathers or single mothers. These results present a complex portrait of the relationship between gender and self-control. The social father household results indicate that when a gender gap in self-control exists, it extends beyond differences in parenting practices, yet the gap is non-existent in biological father and single-mother households, even when controlling for few other factors. This suggests that there are factors beyond the scope of this study that mediate gender differences in self-control. Perhaps boys and girls in social father households are subjected to different socialization practices that were not captured by the family process variables in the current study.

Demographics and Self-Control

Both socioeconomic indicators—mother's education and family poverty—were significantly related to self-control across most models. Mother's completion of some college was a positive predictor of self-control in all six models of every series of regression analyses, with the exception of the comparison of biological father households. This suggests that mother's education plays a less pivotal role in households in which both biological parents are present. Although no measure of father's education was included in the current study due to a large number of non-participants in the Wave V father's survey, it is possible that father's education may mitigate the impact of mother's education for a child residing with both biological parents. Family poverty was a significant negative predictor of self-control in all six models of every series of regression analyses, with the exception of the comparison of single-mother households. In most models, living in a household below 100 percent of the poverty threshold was associated with significantly lower levels of self-control; however, family poverty was not significantly related to self-control in any regression analyses for single-mother households. Given the financial disadvantage often associated with such households, one possible explanation is that a large share of single-mothers above the poverty line only marginally cleared this threshold, thus making the poverty threshold a less meaningful line of demarcation for this subgroup.

Analyses produced inconsistent results with respect to race and ethnicity by household structure. Hispanic children possessed significantly higher levels of self-control than Whites in all models in the full sample and single-mother household

comparison as well as Models 4-6 of the social father household comparison; however, there was no significant difference between Hispanics and Whites in biological father households. Meanwhile, household comparisons produced contradictory results for African Americans, who had significantly lower self-control than Whites in biological father households and higher self-control than Whites in social father and single-mother households. Though it is unclear why different household structures would produce opposite trends, there is a notable trend: Whites fare better than Blacks and as well as Hispanics in biological father households but worse in other households, which is consistent with research indicating that family disruption has more negative consequences for Whites than for African Americans and Hispanics (McLanahan and Sandefur 1994).

Limitations

Fragile Families, as a large, national study with an explicit focus on young children and their families, is well-designed for an examination of family structures, parenting processes, and children's well-being; however, as with any large-scale, multi-wave study, respondent attrition is inevitable. Fragile Families included a sample of 4,898 children at the baseline wave of data collection; however, nearly 1,500 of these children did not participate in Wave V—the primary focus of the current study. More than 200 mothers who did not live with their children all or most of the time at Wave V were not included in the current study. Coupled with the dropping of cases with missing responses on key variables and those with unknown or deceased biological fathers, the current study's working sample of 2,678 includes only 55 percent of the Fragile

Families baseline sample. Although this is still a large sample by most standards, the design of the current study required the division of the sample into several smaller groups by household type. Most notably, the working sample only included 198 married social father households and 263 cohabiting social father households. Thus, as previously noted, the analyses of social father households should be interpreted with caution.

An issue with this longitudinal data set is that even in the working sample, there were cases in which families skipped one or more collection waves. This may have resulted in an undercounting of family transitions.

Due to the construction of the parenting discipline measures as dummy variables in the current study, they did not capture the frequency with which these practices were employed. In terms of the impact on a child's development, a mother yelling at a child less than once a month is probably not equivalent to yelling at a child every day; however, the Likert-type scales for such items are problematic in a study examining links between parenting practices and self-control (the latter measured by problem behavior). For example, explaining to a child why he/she did something wrong is a positive parenting practice, in theory; however, if this occurs every day, it may be indicative of frequent behavioral problems. This may lead to the faulty conclusion that frequently explaining to a child why he/she did something wrong leads to low self-control. An alternate method would be to measure parenting practices at an earlier wave (i.e. Wave IV) to assess their impact on self-control at Wave V, but this is problematic in several ways. For one, non-respondents in Wave IV would have to be dropped from the current analysis. Also, all waves prior to Wave V only include self-reported

measures of parenting practices from one parent per child (usually the mother), providing fewer and less objective measures than the child-reported measures in Wave V. While the dummy variables measuring parental discipline methods are not ideal, they are arguably less problematic than other alternatives.

As previously noted in the methodology section, the father contact variable was not a precise measure of father involvement, as it captured neither the frequency nor the quality of father-son interactions. Nonetheless, the impact of this crude measure on children's self-control suggests that dynamic measures of father involvement may produce even more robust findings.

Although mediating effects were inferred in the stepwise regression analyses, no formal tests for mediation were conducted (i.e., Baron and Kenny's procedure). Such mediation analyses may reveal direct and indirect effects between family structure, parenting practices, and self-control that were not captured in the current study.

In spite of these limitations, this research provides a more detailed examination of household structure, parenting, and self-control than previous studies, thanks to the scope and detail of the Fragile Families data set.

Policy Implications

Family researchers have consistently found that household structure matters, with children from "traditional," married biological parent families faring better than their peers across a wide range of outcomes. The current study adds to that body of research by illustrating how self-control—a concept linked to numerous outcomes, both criminal and non-criminal, in criminological research—varies by household structure.

The disadvantage experienced by children in non-traditional households is particularly alarming in light of trends in marriage and family formation, as previously addressed in this dissertation. The findings of this study shed light on potential ways to address this gap in outcomes by household structure.

The majority of children nowadays will not spend the entirety of their childhoods living with married biological parents who stay together continuously. Rather than attempting to reverse a trend that is driven by powerful and dynamic economic and social forces, practical policies should be aimed at mitigating its consequences. The results of this study suggest that biological father contact is critical to minimizing the disadvantage experienced by children who do not live with their biological fathers. Thus, efforts to promote non-resident father involvement would be beneficial to children who do not live with married biological parents. Gottfredson and Hirschi suggest parenting programs to instill effective child-rearing techniques in the parents of young children, and the findings of this study indicate that refining parenting methods may contribute to the development of self-control; however, this study shows that emphasis should also be placed on something as simple as the importance of father involvement. Though seemingly obvious, it may be necessary to reiterate this to parents who do not live together. A non-resident father can continue to play a pivotal role in a child's well-being beyond providing financial support.

Gottfredson and Hirschi argue that anti-poverty programs do not reduce crime because they do not address self-control, which is instead the product of effective parenting; however, in the current study, mother's education and household poverty were significantly related to children's self-control, independently of parenting

practices. Thus, contrary to Gottfredson and Hirschi's argument, the findings of this study suggests that reducing poverty would improve children's self-control. This is consistent with recent economic research linking increases in unearned household income with reductions in children's behavioral and emotional problems and boosts in conscientiousness and agreeableness (Akee et al. 2015)—personality traits that closely align with Gottfredson and Hirschi's concept of self-control. Furthermore, given the positive impact of mother's education on children's self-control, policies that directly or indirectly promote women's educational attainment—such as additional financial aid, child care subsidies, or flexible work schedules—are likely to benefit children as well.

Future Research

Even with this contribution, the self-control research literature is severely lacking in detailed examinations of household structure. In the rare instances that household structure is taken into consideration in tests of self-control theory, the household categories that are employed fail to reflect changes in the American family. The issue extends beyond self-control theory, as the family plays a central role in most criminological theories. The applicability of these theories cannot be assessed fully if growing categories of families—specifically, cohabiting households—are ignored in analyses.

The mixed gender-related results—with a gender gap in self-control existing in social father households but not biological father or single-mothers households—signal a need for additional examination of gender within self-control theory. They also highlight the importance of a more nuanced treatment of household structure.

The inconsistency of relationships between race/ethnicity and self-control by household structure highlights the need for further examination of racial/ethnic differences in the development of self-control. Future research should consider not only whether parenting practices differ by race/ethnicity, but also whether the effects of specific practices on self-control are uniform across all races and ethnicities, or if cultural differences produce interaction effects between race and parenting practices.

Previous research has indicated that Gottfredson and Hirschi's explanation for self-control development is incomplete, as differences in self-control often persist across various demographic factors. In the current study, socioeconomic status—as measured by family poverty and mother's education—had a direct effect on self-control, independently of differences in parenting practices. Aside from simply confirming whether the relationship between socioeconomic status and self-control exists, future studies would provide us with a better understanding of the complexities of self-control formation if they shed light on why such a relationship exists. Understanding the processes by which disparities in self-control are produced will provide a better overall understanding of the concept, thereby leading to solutions that benefit all children.

Conclusion

This study answered several questions regarding the role of the family in the development of self-control. Parenting practices and self-control varied by household structure, yet differences in parenting practices did not fully explain disparities in self-control—contrary to the tenets of Gottfredson and Hirschi's self-control theory. In the

otherwise heavily explored terrain of self-control theory, the household comparisons included in the current study—particularly with respect to consideration of cohabitation—represent fairly uncharted territory. In confirming the advantaged status of children who live with married biological parents, this study highlights a flaw in criminological studies that lump married and cohabiting biological parent households into a single category. Though the results of the current study suggest that married and cohabiting social father households are similarly disadvantaged, ignoring these distinctions would ensure failure to uncover underlying dynamics that may differentiate these groups in future research.

This dissertation also explored the relationship between gender and self-control. Although previous studies have examined whether parenting practices mediate gender differences in self-control, none have done so within the context of such specific household categories. The unexpected gender-related findings of this study suggest that the relationship between gender and self-control may be even more complex than previously realized, signaling a need for more in-depth exploration of the topic.

This project attempted to reconcile the dissonance between treatments of family structure in the fields of sociology and criminology. Sociology of family scholars have identified and explained dramatic changes in the American family over the last several decades, yet criminologists—even when examining theories that trace causes of crime directly to the family—have largely overlooked this research. Likewise, criminologists may be well served to look to the ideas of gender scholars in generating potential explanations for the gender cap in criminal offending. A more interdisciplinary

approach by criminologists may unlock fresh perspectives and lead to a better understanding of the complex nature of crime.

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Appendix: Tables

Table 1. Summary of Control Variables, N=2,678

	Mean	Standard Deviation
Age	9.272	0.356
Gender (male = 1)	0.528	0.499
African American	0.494	0.500
Hispanic, non-African American	0.311	0.463
White and all others	0.195	0.396
Mother's education (some college or more = 1)	0.578	0.494
Family poverty (below poverty threshold = 1)	0.359	0.478

Table 2. Family Structure Variables, N=2,678

	Mean	Standard Deviation
Household structure		
Resident social father	0.172	0.378
Single mother	0.396	0.489
Married biological father	0.331	0.471
Cohabiting biological father	0.101	0.302
Married social father	0.074	0.262
Cohabiting social father	0.098	0.298
Father involvement		
Biological father contact	0.797	0.402
Family transitions		
Biological father exit	0.386	0.487
Biological father entrance	0.212	0.409
Social father exit	0.108	0.310
Social father entrance	0.266	0.442
Total family transitions	0.998	1.047

Table 3. Family Process Variables, N=2,678

	Mean	Standard Deviation
Maternal monitoring	0.000	2.411
Failure to recognize misbehavior	0.309	0.459
Parental discipline		
Mother explanation	0.859	0.348
Mother grounding	0.742	0.437
Mother negative verbal	0.597	0.491
Mother physical	0.507	0.492
Biological father explanation*	0.706	0.456
Biological father grounding*	0.508	0.500
Biological father negative verbal*	0.441	0.497
Biological father physical*	0.357	0.472
Social father explanation**	0.702	0.458
Social father grounding**	0.553	0.498
Social father negative verbal**	0.432	0.496
Social father physical**	0.263	0.434
Parental explanation	0.794	0.336
Parental grounding	0.643	0.394
Parental negative verbal	0.528	0.428
Parental physical	0.438	0.427
Parental attachment		
Mother attachment	3.664	0.692
Biological father attachment*	3.357	0.955
Social father attachment**	3.071	0.999
Parental attachment	3.510	0.670

*n=2,135

**n=461

Table 4. Self-Control Scale Items, N=2,678

	Mean	Standard Deviation
Acts too young for his or her age	2.683	0.507
Fails to finish things he or she starts	2.444	0.591
Can't concentrate, can't pay attention for long	2.443	0.657
Can't sit still, is restless, or hyperactive	2.498	0.664
Cries a lot	2.810	0.447
Is cruel to animals	2.963	0.237
Is cruel, bullies, or shows meanness to others	2.665	0.377
Demands a lot of attention	2.549	0.627
Destroys things belonging to family or others	2.841	0.399
Destroys his or her own things	2.836	0.426
Is disobedient at home	2.507	0.549
Is disobedient at school	2.713	0.488
Doesn't get along with other kids	2.831	0.407
Doesn't seem to feel guilty after misbehaving	2.770	0.476
Gets hurt a lot or is accident-prone	2.853	0.389
Gets in many fights	2.913	0.315
Is impulsive or acts without thinking	2.696	0.511
Physically attacks people	2.948	0.250
Screams a lot	2.799	0.456
Is stubborn, sullen, or irritable	2.658	0.529
Has sudden changes in mood or feelings	2.721	0.488
Has temper tantrums or a hot temper	2.681	0.547
Threatens people	2.954	0.231
Is unusually loud	2.766	0.491
Whines	2.556	0.572

Table 5. One-Way ANOVA: Family Processes and Self-Control by Household Structure, N=2,678

	Married Biological Father (n=886)	Cohabiting Biological Father (n=271)	Married Social Father (n=198)	Cohabiting Social Father (n=263)	Single Mother (n=1,060)	
	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	F
Maternal monitoring	-0.011 (2.274)	0.164 (2.398)	0.313 (2.250)	-0.345 (2.628)	-0.005 (2.489)	2.507 *
Failure to recognize misbehavior	0.244 (0.426)	0.305 (0.457)	0.330 (0.467)	0.394 (0.488)	0.340 (0.471)	8.166 ***
Parental explanation	0.851 (0.302)	0.810 (0.344)	0.761 (0.324)	0.721 (0.324)	0.766 (0.356)	12.040 ***
Parental grounding	0.698 (0.391)	0.655 (0.415)	0.652 (0.333)	0.569 (0.357)	0.611 (0.404)	8.543 ***
Parental negative verbal	0.575 (0.435)	0.520 (0.439)	0.509 (0.402)	0.492 (0.375)	0.504 (0.434)	4.115 **
Parental physical	0.454 (0.445)	0.427 (0.445)	0.432 (0.394)	0.330 (0.321)	0.455 (0.432)	5.026 ***
Parental attachment	3.648 (0.564)	3.491 (0.716)	3.400 (0.587)	3.260 (0.689)	3.484 (0.722)	20.891 ***
Self-control	2.830 (11.304)	-0.775 (15.137)	-0.694 (13.395)	-1.445 (15.155)	-1.680 (14.671)	14.609 ***

S.D. = standard deviation

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

Table 6. Tukey's HSD: Pairwise Comparisons of Family Processes and Self-Control by Household Structure, N=2,678

	Maternal monitoring	Failure to recognize misbehavior	Parental explanation	Parental grounding
	Mean Diff.	Mean Diff.	Mean Diff.	Mean Diff.
Married biological father vs. cohabiting biological father	-0.176	-0.061	0.040	0.043
Married biological father vs. married social father	-0.324	-0.086	0.090**	0.047
Married biological father vs. cohabiting social father	0.334	-0.151***	0.129***	0.129***
Married biological father vs. single mother	-0.006	-0.096***	0.085***	0.087***
Cohabiting biological father vs. married social father	-0.148	-0.025	0.049	0.003
Cohabiting biological father vs. cohabiting social father	0.510	-0.089	0.089*	0.086
Cohabiting biological father vs. single mother	0.170	-0.035	0.044	0.044
Married social father vs. cohabiting social father	0.658*	-0.065	0.398	0.082
Married social father vs. single mother	0.318	-0.010	-0.005	0.040
Cohabiting social father vs. single mother	-0.340	0.054	-0.044	-0.042

Table 6. Tukey's HSD: Pairwise Comparisons of Family Processes and Self-Control by Household Structure, N=2,678
(continued)

	Parental negative verbal	Parental physical	Parental attachment	Self-control
	Mean Diff.	Mean Diff.	Mean Diff.	Mean Diff.
Married biological father vs. cohabiting biological father	0.055	0.027	0.157**	3.605**
Married biological father vs. married social father	0.066	0.023	0.247***	3.525**
Married biological father vs. cohabiting social father	0.083*	0.124***	0.387***	4.275***
Married biological father vs. single mother	0.071**	-0.001	0.164***	4.510***
Cohabiting biological father vs. married social father	0.011	-0.005	0.091	-0.081
Cohabiting biological father vs. cohabiting social father	0.028	0.097	0.231**	0.670
Cohabiting biological father vs. single mother	0.017	-0.028	0.007	0.905
Married social father vs. cohabiting social father	0.017	0.102	0.140	0.751
Married social father vs. single mother	0.005	-0.023	-0.083	0.986
Cohabiting social father vs. single mother	-0.011	-0.125***	-0.223***	0.235

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

Table 7. T-Tests: Family Processes and Self-Control by Gender, N=2,678

	Female (n=1,265)	Male (n=1,413)	
	Mean (S.D.)	Mean (S.D.)	t
Maternal monitoring	0.228 (2.375)	-0.204 (2.425)	4.655***
Failure to recognize misbehavior	0.282 (0.448)	0.333 (0.468)	-2.864**
Parental explanation	0.769 (0.350)	0.816 (0.322)	-3.582***
Parental grounding	0.604 (0.402)	0.679 (0.383)	-4.895***
Parental negative verbal	0.506 (0.424)	0.549 (0.431)	-2.596**
Parental physical	0.398 (0.420)	0.473 (0.430)	-4.580***
Parental attachment	3.550 (0.626)	3.475 (0.705)	2.936**
Self-control	1.720 (12.883)	-1.541 (14.390)	6.150***

S.D. = standard deviation

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

Table 8. Self-Control Regressed on Household Structure and Family Processes, N=2,678

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	b	Beta	b	Beta	b	Beta	b	Beta	b	Beta	b	Beta
Age	2.525*	.046	2.374	0.34	2.547*	.034	1.283	.012	1.213	.022	1.296	.024
Gender (male =1)	-1.686**	-.058	-1.942**	-.059	-1.686**	-.059	-1.387*	-.047	-1.629**	-.056	-1.386*	-.048
African American^{+}	0.146	.004	-0.218	-.030	0.120	-.030	0.770	-.009	0.505	.015	0.756	.023
Hispanic^{+}	3.434***	.116	3.175***	.066	3.415***	.066	3.998***	.086	3.796***	.129	3.984***	.135
Mother's education	2.533	.087	2.750***	-.030	2.505**	-.030	2.604***	.090	2.573***	.095	2.581***	.089
Family poverty	-2.048**	-.067	-2.141**	.066	-2.101**	.066	-2.091**	-.069	-2.153**	-.071	-2.127**	-.070
Cohabiting biological father^{++}	-5.025***	-.089	-4.747***	-.106	-5.154***	-.106	-5.661***	-.117	-5.316***	-.094	-5.758***	-.102
Married social father^{++}	-4.991***	-.083	1.568	.026	-5.727***	-.078	-3.921**	-.059	3.805	.063	-4.474**	-.075
Cohabiting social father^{++}	-5.411***	-.103	1.730	.033	-6.101***	.118	-3.625**	-.080	4.594	.088	-4.143**	-.079
Single mother^{++}	-3.162***	-.098	-1.621	-.050	-3.653***	-.119	-3.201***	-.118	-1.942	-.060	-3.566***	-.111
Biological father contact	8.139***	.195	8.886***	.213	8.032***	.208	8.725***	.225	9.392***	.225	8.644***	.207
Biological father exit			-3.250**	-.107					-2.704**	-.089		
Biological father entrance			0.934	.021					0.444	.010		
Social father exit			0.944**	.173					10.519**	.194		
Social father entrance			-5.097	-.145					-6.643	-.189		
Total family transitions					0.383	.027					0.285	.020

Table 8. Self-Control Regressed on Household Structure and Family Processes, N=2,678 *(continued)*

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	b	Beta	b	Beta	b	Beta	b	Beta	b	Beta	b	Beta
Maternal monitoring						.	0.527***	.092	0.437**	.071	0.526***	.086
Failure to recog. misbehavior							0.428	.006	0.235	.007	0.416	.012
Parental explanation							-0.711	-.016	-0.395	-.008	-0.701	-.015
Parental grounding							0.135	.016	0.161	.005	0.130	.004
Parental negative verbal							-5.175***	-.146	-5.230***	-.159	-5.151***	-.156
Parental physical							0.188	-.007	-0.088	-.003	0.132	.004
Parental attachment							2.927***	.131	2.964***	.128	2.924***	.127
Intercept	-28.822		-27.921		-28.924		-26.027		-26.029		-26.048	
Adjusted R^2	0.114		0.127		0.114		0.160		0.171		0.160	

b=unstandardized coeff.

Beta=standardized coeff.

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

+ref=white

++ref=married bio father

Table 9. Self-Control Regressed on Household Structure and Family Processes, Biological Father Households, n=1,157

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	b	Beta	b	Beta	b	Beta	b	Beta	b	Beta	b	Beta
Age	4.257**	.094	4.324**	.096	4.230**	.093	2.597	.057	2.673	.059	2.585	.057
Gender (male =1)	-1.271	-.055	-1.357	-.059	-1.375	-.060	-0.489	-.021	-0.605	-.026	-0.596	-.026
African American+	-3.883**	-.117	-3.669**	-.110	-3.703**	-.111	-3.937**	-.118	-3.722**	-.112	-3.768**	-.113
Hispanic+	-0.327	-.014	-0.177	-.008	-0.317	-.014	-0.350	-.015	-0.148	-007	-0.322	-.014
Mother's education	-1.837	-.079	-1.873	-.081	-1.762	-.076	-1.825	-.079	-1.831	-.079	-1.744	-.075
Family poverty	-2.617*	-.096	-2.514*	-.092	-2.588*	-.095	-2.264*	-.083	-2.189*	-.080	-2.239*	-.082
Cohabiting biological father	-5.317***	-.152	-4.748***	-.136	-4.996***	-.143	-5.114***	-.147	-4.724***	-.135	-4.885***	-.140
Biological father exit			4.904*	.101					4.437	.091		
Biological father entrance			-5.234**	-.139					-4.627*	-.122		
Social father entrance/exit			-5.078	-.020					-1.353	-.005		
Total family transitions					-0.898	-.043					-0.758	-.036

Table 9. Self-Control Regressed on Household Structure and Family Processes, Biological Father Households, n=1,157 *(continued)*

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	b	Beta	b	Beta	b	Beta	b	Beta	b	Beta	b	Beta
Maternal monitoring						.	0.380*	.074	0.380*	.074	0.384*	.075
Failure to recog. misbehavior							1.150	.042	1.093	.040	1.142	.042
Maternal explanation							1.702	.041	1.704	.041	1.717	.041
Maternal grounding							-0.038	-.002	-0.072	-.003	-0.070	-.003
Maternal negative verbal							-1.171	-.052	-1.257	-.056	-1.196	-.052
Maternal physical							-1.201	-.054	-1.142	-.051	-1.141	-.051
Maternal attachment							2.247**	.116	2.218**	.115	2.166**	.112
Paternal explanation							-3.232**	-.107	-3.108**	-.103	-3.166**	-.150
Paternal grounding							0.895	.037	0.978	.041	0.938	.039
Paternal negative verbal							-2.577**	-.115	-2.687**	-.120	-2.676**	-.120
Paternal physical							1.493	.066	1.412	.062	1.502	.066
Paternal attachment							2.032**	.121	1.867**	.111	2.009**	.119
Intercept	-31.805		-32.278		-31.471		-30.600		-30.488		-30.070	
Adjusted R^2	0.058		0.056		0.051		0.117		0.120		0.117	

b=unstandardized coeff.

Beta=standardized coeff.

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

+ref=white

Table 10. Self-Control Regressed on Household Structure and Family Processes, Social Father Households, n=461

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	b	Beta	b	Beta	b	Beta	b	Beta	b	Beta	b	Beta
Age	2.304	.037	1.803	.029	2.430	.039	2.651	.043	2.300	.037	2.569	.042
Gender (male =1)	-10.771***	-.313	-10.101***	-.294	-10.938***	-.318	-10.873***	-.316	-10.211***	-.297	-10.863***	-.316
African American+	6.769**	.182	6.197*	.167	7.517**	.202	8.460**	.228	7.699**	.207	8.999***	.242
Hispanic+	3.991	.110	4.315	.119	4.381	.121	5.319*	.146	5.602*	.011	5.628*	.155
Mother's education	6.406**	.182	6.574**	.186	6.187**	.175	4.951**	.140	4.973**	.414	4.861**	.138
Family poverty	-7.187**	-.207	-7.040**	-.203	-7.493***	-.216	-5.830**	-.168	-5.659**	-.163	-6.099**	-.176
Cohabiting social father	0.353	.010	0.880	.025	0.235	.007	-0.056	-.002	0.394	.011	-0.063	-.002
Biological father contact	6.720***	.192	7.523***	.215	6.229**	.178	8.232***	.235	9.357***	.267	7.845***	.224
Biological father exit			-1.967	-.053					-2.462	-.066		
Biological father entrance			0.458	.009					0.923	.018		
Social father exit			8.737*	.127					9.038*	.131		
Total family transitions					1.983	.077					1.447	.056

Table 10. Self-Control Regressed on Household Structure and Family Processes, Social Father Households, n=461 *(continued)*

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	b	Beta	b	Beta	b	Beta	b	Beta	b	Beta	b	Beta
Maternal monitoring							-0.229	-.039	-.0.456	-.077	-0.181	-.031
Failure to recog. misbehavior							-9.320***	-.242	-9.278***	-.241	-9.167***	-.238
Parental explanation							-2.677	-.058	-2.093	-.045	-2.963	-.064
Parental grounding							0.190	.004	-0.211	-.005	-0.139	-.003
Parental negative verbal							-5.015*	-.117	-4.885	-.114	-4.863	-.114
Parental physical							5.645*	.109	3.973	.076	5.031	.097
Parental attachment							7.189***	.309	7.644***	.328	7.209***	.310
Intercept	-29.132		-25.045		-33.704		-51.170		-49.366		-52.591	
Adjusted R^2	0.171		0.184		0.174		0.304		0.318		0.304	

b=unstandardized coeff.

Beta=standardized coeff.

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

+ref=white

Table 11. Self-Control Regressed on Household Structure and Family Processes, Single-Mother Households, n=1,060

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	b	Beta	b	Beta	b	Beta	b	Beta	b	Beta	b	Beta
Age	-3.432	-.056	-3.404	-.055	-3.269	-.053	-2.113	-.034	-1.752	-.028	-1.740	-.028
Gender (male =1)	0.409	.012	-0.508	-.015	0.307	.009	-0.784	-.023	-1.416	-.042	-0.903	-.027
African American+	5.118**	.150	3.731*	.110	4.961**	.146	6.670***	.196	5.900***	.173	6.525***	.192
Hispanic+	11.921***	.326	10.699***	.293	11.637***	.318	12.008***	.329	11.212***	.307	11.670***	.319
Mother's education	6.186***	.182	6.864***	.202	6.204***	.183	6.237***	.184	6.603***	.195	6.266***	.185
Family poverty	-1.414	-.041	-1.408	-.041	-1.643	-.048	-1.983	-.058	-2.020	-.059	-2.286	-.067
Biological father contact	8.136***	.219	8671***	.233	7.859***	.211	8.204***	.221	8.473***	.228	7.779***	.209
Biological father exit			-3.680*	-.095					-1.696	-.044		
Biological father entrance			3.443	.069					1.664	.034		
Social father exit			3.322*	.084					3.551*	.090		
Total family transitions					0.745	.043					1.133	.065

Table 11. Self-Control Regressed on Household Structure and Family Processes, Single-Mother Households, n=1,060 *(continued)*

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	b	Beta	b	Beta	b	Beta	b	Beta	b	Beta	b	Beta
Maternal monitoring						.	1.066***	.143	0.980***	.131	1.074***	.144
Failure to recog. misbehavior							4.768**	.125	4.347**	.114	4.653**	.122
Parental explanation							3.901	.070	4.134*	.074	4.272*	.077
Parental grounding							0.039	.001	0.256	.006	0.019	.000
Parental negative verbal							-5.027**	-.127	-4.843**	-.123	-5.060**	-.128
Parental physical							-3.715*	-.095	-4.089**	-.104	-4.013**	-.102
Parental attachment							0.237	.009	0.193	.007	0.046	.002
Intercept	14.398		16.379		12.402		1.221		-1.303		-2.501	
Adjusted R^2	0.132		0.144		0.133		0.190		0.196		0.193	

b=unstandardized coeff.

Beta=standardized coeff.

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

+ref=white