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**THE EFFECTS OF NONRESIDENT FATHER INVOLVEMENT ON OFFSPRING
WELL-BEING DURING THE TRANSITION TO ADULTHOOD**

A Thesis in

Sociology and Demography

by

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ABSTRACT

The majority of research on nonresident father involvement focuses on the effects of involvement on offspring's well-being during childhood or adolescence. Findings from this body of research suggest that nonresident father involvement is positively related to a number of indicators of childhood and adolescent well-being. What is less clear is how nonresident father involvement continues to influence offspring well-being during the transition to adulthood, and throughout offspring's adult years. Research on the effects of nonresident father involvement and the nonresident father-child relationship during adolescence and young adulthood on offspring's experiences during young adulthood is virtually nonexistent.

Using a sample of offspring with nonresident fathers ($N = 2,785$) from the first and third waves of the National Longitudinal Study of Adolescent Health (Add Health), this study extends current research on nonresident father involvement and child well-being by examining the consequences of nonresident father involvement during adolescence and young adulthood on young adult offspring well-being. This study builds on previous research by examining the role of nonresident father involvement over-time, by analyzing the unique contributions to offspring's well-being of fathers and mothers, and by focusing on multiple dimensions of offspring's well-being during the transition to adulthood. The effects of nonresident father-child relationship quality, father's financial contributions, and father involvement on offspring's educational attainment, depressive symptoms, self-esteem, criminal activity, violent behavior, and substance use are examined. Measures of mother involvement and mother-offspring relationship quality are also included in the models.

I test the mediating and moderating effects of additional factors related to nonresident father involvement and offspring well-being, including characteristics of the offspring, fathers,

mothers, and several different family structure variables. As a final step in the analyses, I examine the effect of changes in father-offspring relationship quality over-time on changes in offspring's self-esteem and depressive symptoms.

Results from this study suggest that the current relationship between nonresident fathers and their young adult offspring has a direct and positive effect on offspring's well-being during young adulthood, net of the mother-offspring relationship. Offspring who are close to their fathers during young adulthood have higher levels of self-esteem than those with lower quality relationships. After accounting for the mother-offspring relationship, father-offspring closeness does not increase offspring's educational attainment or significantly reduce criminal behavior, violent activity, substance use, or depression, but fathers' payment of child support and financial contributions to their young adult offspring do improve offspring's chances of obtaining some level of post high school education, including going to and completing college.

Analyses also show that only about a quarter of the sample experienced an improvement in father-offspring closeness between the first and third waves of the study. About 40% of the sample experienced no change in initial levels of closeness to their nonresident fathers. However, increases in father-offspring closeness appear to benefit offspring by increasing self-esteem and decreasing their level of depressive symptoms during young adulthood. An analysis of the interactions between father-offspring closeness and characteristics of the child, father and their family background suggest that these findings are generally similar for all groups of offspring. The only consistent moderating effect was for mother-offspring closeness. Children that are close to both their mothers and nonresident biological fathers experience added benefits from these close relationships.

Findings from this study represent the first step toward understanding the long-term influence of nonresident fathers on offspring's well-being during the transition to adulthood. It shows that certain aspects of the nonresident father-child relationship are positively associated with multiple dimensions of offspring's well-being, even after accounting for the mother-child relationship. The results also suggest that offspring benefit from improved relationships with their nonresident fathers as they move through the transition to adulthood.

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Chapter 1

Introduction

Father involvement contributes to offspring well-being, which has resulted in growing pressure for fathers to be highly involved parents. However, high rates of divorce and increasing rates of nonmarital fertility limit many fathers' opportunities to be involved in the lives of their offspring (Amato and Sobolewski, 2004). Approximately 50% of all children will live in a household without their biological fathers at some point in their childhood (Bianchi, 1990). The strength of the father-child relationship is challenged when fathers live apart from their children. Compared to resident fathers, nonresident fathers have much lower levels of involvement with their children. Only about a third of nonresident fathers have weekly contact with their offspring, while the majority sees them once a month or less (Seltzer and Bianchi, 1988; Seltzer, 1991).

Lower levels of involvement among nonresident fathers occur for a number of reasons. Visitation may be too emotionally painful for fathers and children, mothers may not allow fathers to visit if there are high levels of conflict between parents, children may reject their fathers attempts at contact, or family transitions such as relocation, remarriage or the birth of new children may cause fathers to withdraw even more from the lives of their nonresident children (King and Heard, 1999; Cooksey and Craig, 1998; Manning and Smock, 1999). Furthermore, research by Stewart (1999) indicates that nonresident father involvement tends to be limited to recreational activities with their offspring (e.g., playing sports or going to the movies) that limit opportunities for open communication and support. Only about 40% of nonresident fathers who see their children weekly have relationships that involve open communication, setting reasonable limits, and providing

support (Amato and Gilbreth, 1999; Amato and Sobolewski, 2004). The absence of these qualities in many nonresident father-child relationships severely limits nonresident fathers' abilities to influence offspring's positive development and well-being.

Despite the barriers to nonresident father involvement, fathers' continued presence in the lives of their children after they leave the household is believed to be positively associated with child well-being. Previous research suggests that divorce and living in a single parent household negatively affects children's educational and occupational attainment, psychological well-being, physical health, engagement in risky behaviors such as delinquency and substance use, and interpersonal relationships throughout the life course (Amato and Booth, 1997; Cherlin, Chase-Lansdale, and McRae, 1998; Manning and Lamb, 2003; McLanahan and Sandefur, 1994).

One explanation for why children in single-parent households are at risk in terms of lower well-being is that father absence results in a loss of economic and social resources that are necessary for positive offspring development (Amato, 1998). Not only are children with nonresident fathers at a financial disadvantage, but they also suffer from lower social capital in the form of close parent-child relationships, parental monitoring and support, cooperative mother-father relationships, and parents' social ties to the community that are associated with offspring well-being. The main goal of this study is to determine whether or not the social capital that nonresident fathers provide to their offspring during adolescence and the transition to adulthood improves offspring's educational attainment and psychological well-being, and reduces criminal behavior and substance use during the transition to adulthood.

Father Involvement as a Form of Social Capital

Sociologists like Bourdieu (1985) and Coleman (1988) first developed the concept of social capital to refer to social resources that are gained through networks of relationships. Coleman believed that social capital facilitates interaction among individuals within networks as well as the exchange of informal resources such as social support, knowledge, and perceived obligations among social actors. Within the context of the family, social capital is typically measured by the strength of ties between family members. The amount of time parents spend with their children, the quality of relationships between parents and offspring, and the level of parental involvement in offspring's activities all contribute to family social capital (Parcel and Dufer, 2001; Parish and Menaghan, 1993).

Father absence reduces family social capital by weakening relationships between fathers and children, and sometimes between mothers and children. Single mothers are often unable to provide emotional support and monitor their children effectively if they are overburdened by emotional strain or are unable to successfully balance work and family responsibilities (Cherlin, 1981; McLanahan and Sandefur, 1994). The extent to which nonresident fathers can continue to provide the types of resources associated with family social capital may protect offspring against the risks associated with father absence. Previous research has shown that nonresident father-child contact alone is not sufficient to transmit social capital and improve child well-being (King, 1994a; Amato and Gilbreth, 1999). The quality of the time nonresident fathers spend with their children, the types of activities in which they participate, and the quality of the father-child

relationship matter for how much offspring benefit from nonresident father involvement (Amato, 2000; Palkovitz, 2002).

The social capital that offspring gain from parents is especially important in providing resources used in socializing children (Schoen et al., 1997; Starrels and Holm, 2000). Offspring learn positive social skills and develop preferences for prosocial behavior that aids in their social adjustment outside the family (Parish and Menaghan, 1993). Social capital has been positively linked to a number of indicators of well-being including academic achievement, less antisocial behavior, and a general increase in social competence among offspring (MacDonald, 1987). However, these findings are limited to childhood and adolescent well-being, with little focus on offspring's experiences during young adulthood. Parental support, prosocial attitudes and other forms of social capital may be especially important for offspring well-being during young adulthood as offspring explore a variety of school, work, relationship and identity options that will affect them well into adulthood. Social capital aids in the development of two additional forms of capital, financial (economic resources) and human (education and work skills) capital that are known to play an important role in shaping offspring's opportunities and constraints during young adulthood (MacMillan and Copher, 2005; Teachman, Paash, and Carver, 1997).

This study focuses mainly on the positive influence of nonresident father involvement, and the social capital they transmit to their children. However, it is important to note that social capital may have negative consequences for children in specific contexts (Portes, 1998; Portes and Landolt, 1996). Nonresident father involvement may create conflict between mothers and father, which can lower offspring's well-being. It is also important to consider that not all forms

of father involvement may be beneficial for children (Palkovitz, 2002). Involvement by fathers, who engage in risky behaviors such as illegal activities, drug use, or abusive parenting, can also have negative effects on offspring's well-being.

Nonresident fathers may contribute different types of resources to offspring of different ages, and may be more effective in protecting offspring against specific types of outcomes. The majority of research on nonresident fathers' social capital contributions focuses on the effects of fathers' involvement on various dimensions of offspring's well-being during childhood or adolescence. Findings from this body of research suggest that nonresident father involvement is positively related to a number of indicators of childhood and adolescent well-being including academic achievement, fewer internalizing (e.g., depression) and externalizing behaviors (e.g., delinquency), self-esteem and an overall feeling of positive well-being (Amato and Gilbreth, 1999; Marsiglio et al., 2000). However, these effects are typically modest and vary by the measure of father involvement used, and the outcome of interest.

What is less clear is how nonresident father involvement continues to influence offspring well-being during the transition to adulthood, and throughout offspring's adult years. Research suggests that young adulthood has become an increasingly distinct and extended stage of the life course, in which people spend an extended period of time exploring many potential life directions (Arnett, 2000). The benefits of close parental ties may weaken during offspring's transition to adulthood as they develop extra-familial relationships, and acquire new adult roles that also have the potential for increasing or decreasing offspring well-being (Roberts and Bengston, 1993). The strength of the father-offspring relationship when offspring are young adults appears to be contingent on the quality of the relationship when offspring are younger. Aquilino (2006) found that nonresident fathers who were close to their children during childhood

and adolescence were closer to their children during young adulthood. However, research on how nonresident father closeness to their young adult offspring influences offspring's well-being during young adulthood is virtually non-existent. To my knowledge, there have been no published studies on this topic.

Using data from the first and third waves of the National Longitudinal Study of Adolescent Health (Add Health), the proposed study extends current research on nonresident father involvement and child well-being by examining the consequences of nonresident father involvement at two time points, during adolescence and young adulthood, on young adult offspring well-being. Multiple dimensions of young adult well-being will be examined including educational attainment, psychological well-being (depression and self-esteem), criminal behavior, and substance use. Multiple dimensions of the father-child relationship and father involvement, including father-child closeness, fathers' involvement in shared activities with their offspring, and fathers' financial contributions will be examined to assess what types of involvement are most beneficial for offspring during the transition to adulthood. Measures of mother's involvement and relationship quality will also be included in the analyses, in order to estimate the unique contributions of fathers on offspring well-being. Father involvement is positively correlated with mother's involvement, making it important to control for mother's involvement in studies of father involvement. Given the longitudinal nature of the Add Health, the current study also examines how father-child and mother-child relationships change over time, how offspring's well-being changes over time, and the associations between these trends.

Hypotheses

Given the knowledge that nonresident father involvement during childhood and adolescence promotes offspring well-being during earlier stages of the life course, the following hypotheses will be tested:

Hypothesis 1: Nonresident father involvement during *young adulthood* is positively related to offspring well-being during young adulthood.

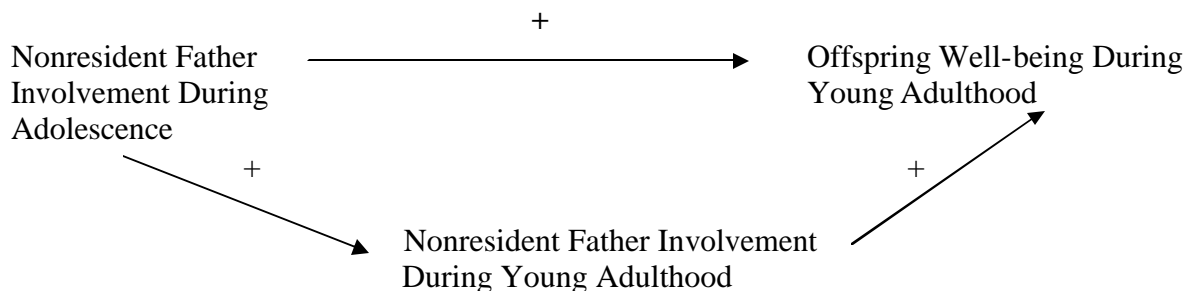
Hypothesis 2: Nonresident father involvement during *adolescence* is positively related to offspring well-being during young adulthood.

2A: Nonresident father involvement during adolescence **indirectly** influences offspring well-being by improving father-offspring relationship quality in young adulthood. The current relationship between fathers and offspring during young adulthood is what drives the association between nonresident father involvement during adolescence and young adult offspring well-being.

2B: Nonresident father involvement during adolescence **directly** influences offspring well-being during young adulthood. The benefits of nonresident father involvement during adolescence (prosocial behaviors, socialization, and fewer problem behaviors) create a positive trajectory of influence that continues during young adulthood.

Figure 1 presents the conceptual model for the hypothesized relationships between nonresident father involvement during adolescence and young adulthood and offspring well-being during young adulthood.

Figure 1.1. *Hypothesized Relationships between Nonresident Father Involvement and Offspring Well-being during Young Adulthood.*



Although prior research finds evidence of a significant association between nonresident father involvement and offspring well-being during adolescence, the effects of nonresident father involvement are generally modest; especially when the influence of mother involvement is controlled (Amato and Gilbreth, 1999; King and Sobolewski, 2006). Further, nonresident father involvement is beneficial for some, but not all, indicators of well-being.

Given the modest findings during adolescence, it is possible that the effect of nonresident father involvement on well-being when offspring reach young adulthood is even more modest, or nonexistent. Once offspring gain more independence from their parents, form new relationships, and acquire new adult roles, the quality of nonresident father-offspring relationships may decline, and fathers may no longer be able to transmit social resources to their offspring. Therefore, an alternative hypothesis for the proposed study is:

Hypothesis 3: Nonresident father involvement during adolescence and young adulthood has no effect on offspring well-being during young adulthood.

Support for any of the proposed hypotheses would result in an improvement in our understanding of the ways nonresident father involvement influences young adult offspring well-being.

Predicting Changes in Offspring Well-being

As offspring move through the transition to adulthood, they are likely to experience changes in their own feelings of well-being, along with changes to their relationships with parents. Examining the relationship between father involvement during offspring's adolescence and young adulthood on their well-being as young adults does not take into account offspring's initial levels of well-being, or how well-being changes over time, particularly in response to changes in the father-child relationship. The longitudinal nature of the Add Health makes it possible to control for offspring's initial levels of well-being when predicting well-being during young adulthood, and to examine the association between changes in father-child involvement and changes in well-being. Previous research suggests that although trajectories for depression or self-esteem are typically established before young adulthood, sources of stress and support during the transition to adulthood can alter these trajectories by increasing or decreasing feelings of well-being (Meadows, Brown, and Elder, 2005). Nonresident father closeness and involvement serve as potential sources of social support during the transition to adulthood that influence changes in offspring's well-being as young adults.

Chapter Structure

The next chapter provides a more detailed discussion of nonresident father involvement and offspring well-being during the transition to adulthood. The transition to adulthood is a unique stage of the life course where paternal influence may be especially important for

offspring well-being, or may be overshadowed by other relationships and experiences that affect offspring's choices and behavior during the transition to adulthood. Chapter 3 describes the data, measures and methods used to examine the association between nonresident father involvement and offspring well-being. The remaining chapters summarize and discuss results from the analyses of the role of father closeness and father involvement, mother closeness and involvement, additional offspring and family related factors associated with father involvement and offspring well-being, and initial levels of child well-being in predicting offspring well-being during the transition to adulthood. Chapter 4 describes the basic demographic characteristics of the sample, and compares offspring that are close to their nonresident biological fathers to those that are not close in terms of their individual qualities, parental characteristics, and family background. Chapter 5 presents the results from analyses that test the hypothesized relationships between father-offspring closeness and involvement during offspring's adolescence and transition to adulthood and multiple dimensions of offspring's well-being. Chapter 6 discusses the relationship between changes in father-offspring closeness and changes in offspring's internalizing behavior. The final chapter discusses the overall results from the dissertation, with a focus on how they contribute to the current literature on the role of nonresident fathers in child well-being.

Chapter 2

Nonresident Father Involvement and Offspring Well-being

The question of whether or not nonresident fathers contribute to offspring's well-being during young adulthood remains to be answered. Many nonresident fathers gradually withdraw from their children's lives as time passes, suggesting that by the time offspring reach adulthood, fathers may have little or no influence on offspring's development (Furstenberg and Nord, 1985; Seltzer and Bianchi, 1988). However, the positive effects of nonresident father involvement during childhood and adolescence may continue to enhance offspring's well-being during adulthood. Some research suggests that the benefits of father involvement may even become more salient during the transition to adulthood given the unique experiences that occur during this developmental period (Aquilino, 1997; Belsky et al., 2003).

Young adulthood has become a significant developmental period as youth postpone family-related transitions, make tentative relationship commitments (e.g., cohabitation), and enter parenthood outside of marriage. Some describe the young adult years as "demographically dense," diverse, and disordered (e.g., Rindfuss, 1991) and as a distinct developmental period (emerging adulthood) that allows for an extended period of identity exploration that serves as a foundation for making positive choices and creating a stable, satisfying life structure (Arnett, 2000). Yet, there is only limited amounts of research on the role parents, especially fathers, play in shaping offspring's behaviors during this period of the life course (Belsky et al., 2003; Cherlin, Kiernan, and Chase-Lansdale, 1995). There is some evidence, however, that fathers who are involved with their children during adolescence are likely to remain involved as their children get older. Aquilino (1997, 2006) finds that fathers' commitment to their adolescent

children, and close and supportive parenting during adolescence, is strongly associated with better quality father-child relationships when offspring were young adults, even among nonresident fathers. Belsky et al. (2003) also provides evidence for the continuity of parent-child relationships from adolescence through the transition to adulthood.

Studies that examine paternal influences on young adult development and well-being tend to focus primarily on the role of resident fathers (Aquilino, 1997; Belsky et al., 2003; Fisher and Feldman, 1998). Nonresident fathers that remain involved in their young adult offspring's lives may be a key source of financial support that enables offspring to go to college and increase their own human and financial capital. The effect of close and supportive father-offspring relationships during adolescence and young adulthood on offspring's greater social skills, social competence and impulse control (Parke and Buriel, 1998) may influence offspring's well-being during young adulthood by enabling them to develop healthy and stable peer and romantic relationships, by enhancing their self-esteem and feeling of well-being, or by limiting their engagement in risky behaviors such as criminal activity or substance use.

Additional Factors Related to Nonresident Father Involvement and Offspring Well-being

The associations between nonresident father involvement and offspring well-being may be due to a variety of related variables. Certain characteristics of the child, mother, father, and their family background are likely to influence nonresident father involvement as well as offspring well-being at different stages of the life course. This study examines the role of offspring's age, gender, race and whether or not they were born in the United States, father and mother's socioeconomic background, whether or not offspring were born outside of marriage, whether or not offspring ever lived with their father, and for how long, whether or not fathers ever served time in jail or prison, the

strength of the mother-child relationship, and whether or not the mother remarried, in shaping father involvement and offspring well-being.

In terms of offspring's characteristics that influence nonresident father involvement, previous research suggests that father involvement tends to decline during adolescence and early adulthood as adolescents gain autonomy, distance themselves from parents, and spend more time with peers (Furstenberg, 2000). A recent study by Scott, Booth, King and Johnson (2005) found that 28 percent of offspring who live with both biological parents, and 56 percent of offspring whose parents were divorced, experienced a decline in father-offspring closeness during the period between adolescence and young adulthood. Fewer than 20 percent in both groups experienced an increase in closeness, suggesting that father involvement is lower for older offspring, especially those with nonresident fathers. Problem behaviors and lower levels of psychological well-being also tend to increase during late adolescence, suggesting that younger and older offspring may have different levels of well-being (Kann et al., 2000).

There are mixed findings on whether or not nonresident father involvement differs by offspring's gender. Some studies find no difference between son's and daughter's amount and quality of contact with nonresident fathers (e.g., Cooksey and Craig, 1998), while others suggest that nonresident fathers are more involved and have closer relationships with sons (Harris and Morgan, 1991; Manning and Smock, 1999). Psychological studies consistently reveal that females are more likely to experience internalizing problems and males are more likely to exhibit externalizing problems,

making gender an important predictor of well-being as measured by outcomes such as depression or delinquency (Avison and McAlpine, 1992; Gore, Aseltine, and Colten, 1992).

Nonresident father involvement also varies across racial and ethnic groups (King, Harris, and Heard, 2004), as do levels of behavioral adjustment (McLeod and Owens, 2004) and academic achievement (Gamoran, 2001). However, inconsistent effects of race and ethnicity on father-child relationships are reported in the literature. For example, Black adolescents report being closer to their nonresident fathers than Whites (King et al., 2004) and some studies find that Black fathers have more contact with their nonresident children than White or non-Black fathers (King, 1994a; Seltzer, 1991), but others find no differences (Seltzer and Bianchi, 1988). Less is known about Hispanic nonresident fathers, but there is some evidence that involvement is lowest for this group of nonresident fathers (King, 1994a; Seltzer and Bianchi, 1988). Offspring that are not born within the United States may be more susceptible to the negative effects of father absence, especially if divorce and father absence are uncommon in their country of origin. Adolescents born outside the U.S. also have lower levels of academic achievement compared to native-born students if English is not the primary language spoken at home (Kao and Tienda, 1995).

Part of the explanation for racial and ethnic differences in nonresident father involvement is due to lower income and less education among many minority fathers. More highly educated fathers have more financial resources to provide to their children, and typically have better parenting skills, greater commitment to their paternal role, and higher levels of involvement (Cooksey and Fondell, 1996; Furstenberg et al., 1983; King, Harris and Heard, 2004). This is true for mothers as well. Families' socioeconomic

status (typically measured by mother and fathers' education) is consistently related to parental involvement and children's well-being during adolescence and young adulthood (Amato and Booth, 1997).

Nonresident fathers' education and greater financial resources increase fathers' ability to pay child support, which has been linked to a number of child outcomes (King, 1994a; McLanahan et al., 1994). However, more recent studies of nonresident father involvement suggest that fathers' payment of child support is positively related to a limited number of outcomes, and may not be as important for child well-being as other forms of involvement, especially during adolescence (Hawkins, Amato, and King, 2005; McLanahan et al., 1994; King and Sobolewski, 2006). Fathers' payment of child support, and continued economic support during young adulthood may be more influential when offspring enter young adulthood and acquire additional financial responsibilities such as college tuition, rent, and other expenses associated with the acquisition of new school, work and family roles.

One final father characteristic, whether or not the father ever served time in jail or prison, is considered as an additional father characteristic that may be related to father involvement and offspring's well-being. Imprisoned fathers have fewer chances to see their children, and may not possess the proper skills to parent effectively when they are out of prison. Offspring's involvement with fathers that are or have been involved in criminal activity, and other negative behaviors, may negatively affect their well-being, rather than having a positive influence.

Four family structure variables are also associated with nonresident father involvement and offspring well-being. Whether or not offspring were born to married parents, whether or not they ever lived with their biological father, the amount of time fathers have lived apart from their

offspring, and whether or not mothers remarry all influence nonresident fathers' willingness for involvement, offspring's access to fathers' social and economic resources, and have the potential to affect children's well-being (Hawkins, Amato, and King, 2005).

Nonresident fathers tend to stay more involved in their children's lives if they were married to the child's biological mother when the child was born (King, Harris, and Heard, 2004; Seltzer and Bianchi, 1988). Similarly, if the child lived with the father at some point, the nonresident father may be more committed to the child and therefore more involved in active fathering after he leaves the child's residence. The more recently the father and offspring shared a residence, the more involved the nonresident father is likely to be (Seltzer and Bianchi, 1988). Several studies also show that adolescents whose mothers remarry tend to have less involved nonresident fathers due to the presence of a stepfather in the household (Furstenberg et al., 1983; Seltzer and Bianchi, 1988; Stephens 1996). Other studies show that adolescents face more problems in stepfather families than in mother-only families (Hetherington, 1993).

A final key factor associated with nonresident father involvement and offspring well-being is mother involvement and the quality of the mother-child relationship. The mother-offspring relationship is consistently linked with long-term offspring adjustment and competence (Parke and Burial, 1998). Compared to nonresident fathers, there is much stronger evidence that the mother-child relationship protects against the negative consequences of divorce. Numerous studies report that the quality of the mother-offspring relationship and mothers' effective parenting after divorce is a key predictor of offspring's post-divorce well-being (Amato, 2000).

Because the quality of the mother-offspring relationship is positively correlated with nonresident father involvement, it is likely that offspring who are close to their mothers also benefit from a closer relationship to their nonresident fathers (Buchanan, Maccoby, and Dornbush, 1996; King and Sobolewski, 2006). However, much of the positive effects of father involvement may actually be due to better quality mother-child relationships, especially if mothers' residential status and role as the primary parenting figure (Pleck, 1997) makes it easier for them to transmit social and economic resources to offspring. Without controlling for mother involvement, the positive effects of nonresident father involvement may be overestimated. Few studies include measures of offspring's relationships with both parents, and those that do focus on offspring well-being during adolescence rather than young adulthood (Manning and Lamb, 2003; Stewart, 2003; White and Gilbreth, 2001). These studies provide limited evidence that the positive influence of nonresident father involvement is independent of the effects of mother involvement. By including a measure of the mother-child relationship (during adolescence and young adulthood), the proposed study will determine the unique effects of mother and father involvement on offspring's development during young adulthood.

Potential Moderating Conditions for the Influence of Father Involvement

The factors related to nonresident father involvement and offspring well-being may also moderate the effect of nonresident father involvement on young adult offspring well-being. The process of father involvement and the influence fathers have on multiple young adult outcomes may differ significantly for sons versus daughters, for younger versus older offspring, for Whites, Blacks and Hispanics, and for offspring born within the United States compared to those born in another country. There may also be

differences between offspring with less educated parents versus those with more highly educated parents, from households with higher versus lower income, for children born outside of marriage versus those born to married parents, for children with and without a stepfather, for offspring who never lived with their father and those that did, for offspring whose fathers served time in jail, and for offspring with close versus not close relationships with their biological mother.

There is little empirical evidence to suggest that the positive influence of nonresident father involvement on *adolescent* well-being is moderated by individual or demographic conditions such as offspring's age, gender and race, socioeconomic status, or family structure (King 1994b; King and Sobolewski, 2006). However, the mechanisms that influence patterns of father involvement may function differently during young adulthood, resulting in significant contextual differences in involvement and well-being for offspring during young adulthood. For example, white offspring may benefit more from father involvement than black offspring during young adulthood if fathers differ by race in terms of unemployment, criminal activity or substance use (Wilson, 1987). A study by Thomas, Farrell and Barnes (1996) shows that black male adolescents have more behavior problems when nonresident fathers are involved (compared to those with no father involvement), while white adolescents benefit from nonresident father involvement. Analyses of Black and White young adult offspring may produce similar results.

Research also suggests that there are significant racial differences in terms of levels of nonresident father involvement, the types of activities shared between nonresident fathers and offspring, and potentially, the extent to which nonresident father

involvement benefits offspring well-being (King, Harris and Heard 2004). For example, Black offspring may have higher levels of contact with nonresident fathers, but the benefits of father involvement may be lower if Black nonresident fathers lack adequate social and economic resources that facilitate engagement in instrumental activities that increase offspring well-being. Offspring born outside the United States may not benefit as much as offspring born in the U.S. from nonresident father involvement if the father's role in the family, and in his child's life, is no longer clear once he is out of the household, or if their fathers lack the skills and resources to be involved in ways that benefit offspring well-being. On the other hand, nonresident father involvement may be especially important for offspring who lack other types of social and economic resources.

Offspring's gender may moderate the relationship between nonresident father involvement and offspring well-being given the important role fathers play in son's socialization and gender role identity formation (Lamb, 1981). Daughters may not participate in the same types of activities as sons, and may not have the same access to fathers' social capital as sons. In addition, female offspring may be closer to their mothers or other adults after divorce which compensates for a lack of closeness to their nonresident fathers (Booth and Amato, 1994).

The nature and benefits of father involvement may also differ by offspring's age and developmental stage. For example, father involvement may not matter as much during late adolescence and early young adulthood when a natural distancing of offspring from their parents occurs (Furstenberg, 2000). During this time, peers influence offspring behavior more than parents do, and fathers may not play a significant role in determining offspring well-being. However, the social and economic resources that are

gained from father involvement may be even more beneficial for offspring in the later stages of young adulthood as they assume more adult roles and more responsibilities. Involved fathers may provide financial support to older offspring for college and post-college educational attainment, or share information related to employment opportunities, marriage or childrearing.

In terms of socioeconomic status, offspring from families with higher household incomes, and with more highly educated fathers may benefit from fathers' involvement more than offspring with less educated fathers if fathers' education provides them with greater economic resources or community ties that benefit offspring's educational attainment and work experiences. Lower levels of education limit nonresident fathers' abilities to provide financially for their children, and to parent effectively, resulting in a lack of social capital for offspring. Fathers who were incarcerated for some part of their child's life may also be less prepared to parent effectively when they see their children.

Less educated mothers may also lack the necessary social and economic resources that promote child well-being. As a result, parental involvement may not matter as much for offspring well-being during adolescence and young adulthood if parents have low levels of human and financial capital, and lack proper parenting skills. On the other hand, offspring whose parents are more highly educated may be less susceptible to the economic and social disadvantages related to father absence, regardless of how involved their fathers are, suggesting that nonresident father involvement is less beneficial for offspring in families with higher socioeconomic status.

Even though offspring whose parents were never married or who never lived with their biological fathers experience lower levels of nonresident father involvement, they

may actually benefit more from fathers' continued presence if it protects against other factors (such as lower educational attainment, depression, and antisocial behavior) for which they are at risk (Brown, 2004; Manning and Lamb, 2003). Nonresident fathers may provide social and economic resources to these offspring that are not available from any other source.

Compared to offspring with stepfathers, those with single mothers may also benefit more from nonresident father involvement. Offspring whose mothers remarry gain access to stepfathers' social capital, and may be less likely to experience any added benefit from resources provided by the nonresident father (King, 2006).

A close mother-offspring relationship also has the potential to moderate the influence of nonresident father involvement on offspring well-being. It is unclear whether or not offspring benefit more or less from nonresident father involvement if they have high quality relationships with mothers. It may be that close father-child relationships are only beneficial for offspring that are not close to their biological mothers. However, the benefits of nonresident father involvement may be enhanced by a close mother-child relationship, suggesting that offspring with close ties to both parents have the greatest advantage (Buchanan, Maccoby, and Dornbush, 1996; King and Sobolewski, 2006)

Based on the discussion of the factors that influence nonresident fathers' abilities and motivations for involvement and offspring well-being, it is clear that the link between nonresident father involvement and child well-being is complex and diverse. The proposed study will attempt to resolve many of these complexities by examining multiple dimensions of nonresident father involvement at two points in time, by examining the unique effects of mother

and father involvement, by including a number of additional factors related to nonresident father involvement and offspring well-being in the analyses, and by considering changes in offspring's well-being between adolescence and the transition to adulthood.

Chapter 3

Data, Measures, and Methods

The National Longitudinal Study of Adolescent Health

Data for this study come from the first and third waves of the National Longitudinal Study of Adolescent Health (Add Health). This is a longitudinal survey of adolescents who were in middle school or high school at the time of the first interview. The Add Health is ideal for examining how various social contexts including the family influence adolescents' health and well-being.

The initial Add Health sample was obtained from a stratified random sample of all U.S. middle and high schools in 1995. A subset of students and parents, consisting of approximately 20,000 respondents was also selected for an in-home portion of the survey. Adolescents, but not parents, from the 1995 in-home sample were re-interviewed in 1996 and again during 2000–2001. Response rates for the three waves were 78.9%, 88.2%, and 77.4%, respectively. Approximately 15,000 adolescents participated in all three waves of the survey. Many subpopulations were over-sampled, including Blacks from well-educated families, and Chinese, Cuban and Puerto Rican adolescents. When appropriate sample weights are used, the data are a nationally representative sample of adolescents in grades 7–12 at the time of the first wave. See Bearman, Jones, and Udry (1997) and Harris et al. (2003) for a more detailed description of the data collection process.

Analytic Sample

For the purposes of this study, the sample is restricted to respondents ages 18 and under at the first interview, who were living with their biological mother in wave 1, had a nonresident biological father whom they know was still alive at the time of both

interviews, and had valid sample weights. A large majority of respondents with a nonresident father were living with their biological mothers at the first interview (over 90%).

Focusing just on respondents that live with their biological mother is important given the significance of the mother-child relationship in promoting offspring well-being and nonresident father involvement. In order to be in the final sample, respondents also had to answer questions related to the father-offspring relationship in wave 3, and could not be living with their biological father ($n = 147$). If respondents were not in touch with their fathers at the time of the third interview ($n = 565$), they remained in the sample, but were assigned the lowest values for each of the father involvement measures. Applying these restrictions resulted in a final sample size of 2,785.

The age range of the respondents in wave 1, and the 5-6 year interval between waves 1 and 3 facilitate the study of offspring as they move through adolescence into young adulthood. At the time of the third wave, the youngest offspring are 18 and the oldest are 24, which allows for comparisons between offspring in the early and later stages of young adulthood.

Measures

Questions pertaining to the nonresident father-offspring relationship (relationship closeness), nonresident father involvement (contact, communication, and involvement in shared activities), and fathers' financial involvement come from both waves 1 and 3.

Measures of the mother-child relationship and mother involvement from both waves will also be included. Other factors that may influence nonresident father involvement and child well-being (offspring age, gender, race/ethnicity, parental education, household income, payment of child support, whether or not the respondent was born outside of

marriage, whether or not the respondent ever lived with their father, how long they lived with their father, mother's remarriage and whether or not the offspring and father are native born) come from the first wave. Measures of offspring well-being during young adulthood (educational attainment, self-esteem, depressive symptoms, criminal behavior, and substance use) come from wave 3. Offspring's reports of whether or not their father ever served time in jail also come from the wave 3 interview. Table 3.1 presents descriptive statistics for the dependent variables used in the analyses. Table 3.2 summarizes the intercorrelations among the dependent variables. Table 3.3 describes each of the independent variables.

Dependent Variables

Key dimensions of young adult well-being include educational attainment, psychological well-being, engagement in criminal behavior, and substance abuse. Eleven measures of offspring well-being during young adulthood will be included as an attempt to capture a range of outcomes that fall into these four categories.

Educational Attainment. Four measures of educational attainment are included to determine whether or not fathers are more influential at some levels of educational achievement compared to others. Not all offspring were out of high school or had completed all of their schooling at the time of the third wave. For the purposes of this study, we excluded all respondents that were still in high school ($n = 30$) when analyzing educational attainment. For two measures (post high school education/training and completed college), we included only those respondents that were not enrolled in any type of schooling at the time of the third wave. The first measure compares respondents that received some education or vocational training after high school (33%) compared to

everybody else. The second measure compares all respondents that completed four years of college (10%) to everybody else. Two additional measures include all respondents, regardless of whether or not they have finished school. The first measure compares respondents that dropped out of high school (9%) to everybody else, while the final measure compares everybody that went to college, regardless of whether or not they finished by the third wave to all other respondents (53%).

Psychological Well-being. Two measures of psychological well-being are included as indicators of offspring well-being. Measures of the extent to which the respondents felt bothered by things, could not shake the blues, felt just as good as other people, had trouble focusing, felt depressed, tired or sad, couldn't enjoy life, and felt that people disliked them were combined by taking the average of the nine items to create a scale for depressive symptoms. The response categories ranged from (1) *never or rarely* to (3) *a lot or most of the time*. Each item was coded so that high scores represented higher levels of depression.

Items indicating the extent to which respondents felt satisfied with their life (1 = *very dissatisfied*; 5 = *very satisfied*), felt they had many good qualities, had a lot to be proud of, liked themselves just the way they are, and felt they were doing things just about right (1 = *strongly disagree*; 5 = *strongly agree*) were combined by taking the average of the five items to form a scale of offspring's self-esteem.

Criminal Behavior. Two outcome measures of offspring's participation in risky and criminal behaviors were created. The first measures involvement in criminal activities. Respondents reported on the frequency of their involvement in the following seven activities in the past twelve months: damaged property that didn't belong to them,

stole something worth more than \$50, stole something worth less than \$50, went into a house or building to steal something, bought, sold, or held stolen property, deliberately wrote a bad check, and used a credit card that wasn't theirs. Respondents who had engaged in *at least one of these activities at least once* in the past year were assigned a 1 (20%), and respondents who had never engaged in any of the activities were assigned a 0.

The second variable measures respondents' engagement in violent activities. Respondents provided reports for how often in the past twelve months they used or threatened to use a weapon to get something, participated in a physical fight with a group of friends, used a weapon in a fight, or carried a gun to school or work. Respondents who had engaged in *at least one of the four activities at least once* in the past year were assigned a 1 (13%), and respondents who had never engaged in any of the activities were assigned a 0.

Substance Use. Respondents provided information on a variety of alcohol and drug related behaviors. Measures of problem drinking, drug use and marijuana use were created for the purposes of this study. The measure of problem drinking combines offspring's reports of how many times in the past month their drinking led to problems at school or work, problems with friends, problems with someone they were dating, resulted in a sexual situation that they later regretted, or led to a physical fight. If respondents reported having problems in at least one of the areas, they were assigned a 1 (28%). Respondents that don't drink or never experienced a problem from drinking were assigned a 0.

Respondents were also asked how often they smoked marijuana in the past month, and how often they used cocaine, crystal meth or any other types of illegal drugs in the past year.

Those that reported marijuana use in the past month were assigned a 1 (27%), while all other respondents were assigned a 0. A similar variable was created for drug use. Respondents that used at least one of the drugs in the past year were assigned a 1 (15%), while all other respondents were assigned a 0.

The correlations among all dependent variables (presented in Table 3.2) are in expected directions. Higher levels of educational attainment are negatively correlated with depressive symptoms, and positively correlated with offspring's self-esteem. The various dimensions of educational attainment are not highly correlated with offspring's criminal activity, violence and substance use, but greater educational attainment does appear to be negatively correlated with these dimensions of lower well-being. Offspring's criminal activity, violence, marijuana use, drug use, and problem drinking are all interrelated, but the strength of the correlations is not as high as expected. For example, the highest correlation among these variables is .47 for the correlation between marijuana use and drug use, and the next highest correlation is .29 (for criminal activity and violence). The two measures of internalizing behavior, depressive symptoms and self-esteem have a correlation of -.44. The low to moderate strength of most of the correlations suggest that each dependent variable represents a different dimension of well-being, making it appropriate to analyze them as separate outcome variables.

Independent Variables

Wave 1 Nonresident Father-Offspring Closeness. This variable is a single item measure of offspring's feelings of emotional closeness to their nonresident father. Adolescents reported how close they felt to their nonresident biological father on a five- point scale that ranged from (1) *not at all close* to (5) *extremely close*.

Wave 1 Nonresident Father Involvement Scale. Four dimensions of nonresident father involvement from Wave 1 were combined into a scale to create a comprehensive measure of the extent to which nonresident fathers are involved with their offspring, and the quality of the fathers' involvement. The items measuring nonresident father involvement during adolescence consist of measures for offspring's contact with the nonresident father, participation in shared activities, communication, and the single item measure of relationship closeness. Contact is measured by 2 items, how often the offspring stayed overnight with their nonresident father in the past year, and how often they talked (in person, on the phone or received a letter) in the past year (*0 = not at all; 1 = more than once a week*). Shared activities consists of five items that reflect whether or not the respondent went shopping, played sports, attended religious services, went to the movies, or worked on a school project with their nonresident father in the past month (*0 = no; 1 = yes*). Communication includes three items, and measures whether or not the respondent talked to their nonresident father about dating, school work and grades, or other school issues in the past month (*0 = no; 1 = yes*). Factor analyses and reliability tests were performed for this scale, and all scales used in the analyses, to ensure that the items could be combined into a single construct. Z-scores were created for the items in the scale so that each variable has a mean of zero and a standard deviation of one. The father involvement scale was created by taking the average of the four standardized items.

Wave 3 Nonresident Father-Offspring Closeness. Respondents were also asked about their feelings of closeness to their fathers in the third wave. The response categories ranged from (1) *not close at all* to (5) *extremely close*.

Wave 3 Nonresident Father Involvement Scale. Respondents were not asked as many questions about father involvement in the third wave of the study. The measure of

nonresident father involvement during young adulthood consists of a measure of contact, the measure of father-offspring closeness, and two additional items pertaining to father-offspring relationship quality. Respondents reported whether or not they were in touch with their biological fathers at the time of the third wave (*Yes* = 80%). This is used as a measure of father-offspring contact during young adulthood. Respondents were asked how much they agreed or disagreed that their father is warm and loving and they enjoy doing things with their father. Response categories ranged from (1) *strongly disagree* to (5) *strongly agree*. Each item was standardized, and the average of the four items was taken to create the scale of father involvement during young adulthood.

Wave 3 Financial Contributions from Father. Offspring were asked whether or not their biological father had given them any money or paid for anything significant in the year preceding the Wave 3 interview (0 = *no*; 1 = *yes*). This measure of fathers' financial involvement will be analyzed separately from the other measures of relationship closeness and involvement.

Mother-offspring Closeness. Respondents were also asked how close they felt to their biological mothers in Wave 1 and Wave 3. The measures of mother-offspring closeness during adolescence and young adulthood are exactly the same as the measures for father-offspring closeness at the two time points. Response categories ranged from (1) = *not at all* to (5) = *very much*.

Wave 1 Mother-offspring Relationship Quality. The measure of mother-offspring closeness was combined with six additional items related to the mother-adolescent relationship to create a scale of mother-offspring relationship quality. Offspring reported how much they felt their mother cared about them (1 = *not at all*; 5 = *very much*), how

much they agree or disagree (1 = *strongly disagree*; 5 = *strongly agree*) that their mother is warm and loving, their mother encourages them to be independent, their mother discusses things they did wrong with them, they are satisfied with the level of communication with their mother, and they are satisfied with their overall relationship with their mother. A scale of mother-offspring relationship quality is the average of these seven items.

Wave 1 Mother-offspring Involvement Scale. Measures of mother's involvement in shared activities and communication with their offspring were combined with the scale of mother-offspring relationship quality to create an overall scale of mother-adolescent involvement. Similar to the measures of activities and communication created for fathers, offspring provided information on whether or not they participated in the following activities with their mothers in the past month: went shopping, played sports, attended religious services, went to the movies, worked on a school project, talked to their mother about dating, school work, grades or other school issues in the past month (0 = *no*; 1 = *yes*). The three items (relationship quality, shared activities, and communication) were standardized and averaged to create an overall scale for mother involvement during adolescence.

In Touch with Biological Mother. Although some respondents were still living with their mothers at the time of the third interview (36%), some had moved out of their mother's household, and some were no longer in touch with their mothers (4%). A dichotomous variable for contact was created by combining offspring that still lived with their mothers and those that had moved out, but were still in touch with their mothers into one category (1), and those that were not in touch with their mothers into a separate category (0). If

the respondent was not in touch with their mother, they were assigned the lowest score for each of the Wave 3 mother-child relationship variables.

Wave 3 Mother Involvement Scale. The scale of mother involvement in Wave 3 is identical to the scale created for nonresident fathers. Respondents' reports of whether or not they were in touch with their mothers was combined with their reports of how close they felt to their mothers, and how much they agreed or disagreed that their mother is warm and loving and they enjoy doing things with their mother. Response categories ranged from (1) *strongly disagree* to (5) *strongly agree*.

Wave 3 Financial Contributions from Mother. Offspring were also asked about their mother's financial contributions in Wave 3. Whether or not their biological mother had given the respondent any money or paid for anything significant in the year preceding the Wave 3 interview ($0 = no$; $1 = yes$) is used as a measure of mother's financial contributions to their young adult offspring.

Both the single items of father and mother-closeness during adolescence and young adulthood will be used in the analyses. The main benefit to using the single item measures is that the measures are comparable for mothers and fathers and are the same in both waves of the study. The measure of father-offspring closeness from Wave 1 of the Add Health has been found to be predictive of child well-being in other studies. King (2006) finds that the measure of closeness predicts adolescent well-being for nonresident fathers, stepfathers, and custodial mothers. Manning and Lamb (2003) also report significant associations between nonresident father-child closeness and adolescent outcomes. Stewart (2003) finds closeness to be related to a number of measures of adolescent well-being. Unlike father-offspring closeness, other individual item measures

of time spent in leisure activities and aspects of authoritarian parenting (e.g., discussing problems) were generally not related to better outcomes in previous studies.

Even though the individual items of nonresident father contact, shared activities and communication may not predict child well-being, a multi-dimensional scale that combines each of these items with closeness may be a stronger predictor of offspring well-being than any of the items alone. The involvement scales used in the study represent the strongest measures of father and mother involvement available at each point in time. The main drawback to using the involvement scales is that the individual measures that make up the scales are not completely comparable for mothers and fathers, and are very different across waves. Results using the single item measures of father and mother closeness will be compared to those using the involvement scales to see what differences exist, and to determine whether or not one measure is better than the other for analyzing the relationships between father and mother involvement and offspring well-being.

Additional Factors Related to Father Involvement and Offspring Well-being

The remaining variables consist of controls from Wave 1 that measure offspring's age, gender, and race (White, Black, Hispanic, Asian and other), father and mothers' education, household income, fathers' payment of child support, whether or not the offspring was born outside of marriage, whether or not the offspring ever lived with their father, the number of years since offspring last lived with their father, mothers' remarriage, and whether or not offspring were born outside the United States. A measure of whether or not the father ever served time in jail or prison was reported by respondents in the third wave.

Offspring's age is a continuous variable that ranges from a minimum of 12 and to a maximum of 18. Gender is a dichotomous variable with females coded as 1, and males 0. 54% of the sample was female. A series of dummy variables were created to compare Whites (62%), Blacks (24%), Hispanics (10%), and all other races (4%). Father's and mother's education is measured using adolescent's report of how far their parents went in school (1 = *eighth grade or less*, 8 = *professional training beyond a four-year college or university*). Household income is mother's report of total income. The measure is logged to minimize skewness. Fathers' payment of child support was a categorical measure of mothers' report of how much the biological father pays in child support "in a typical month" (1 = *none*, 5 = *more than \$500*), but the variable was transformed into a dichotomous variable for the purposes of this study. According to the mothers' reports, only a small proportion (about 5%) of nonresident fathers paid more than a couple hundred dollars a month, so all values greater than one were combined to create a dichotomous measure of whether or not the father paid any amount of child support in a typical month (60%). Three dummy variables, *Yes* = 54%, *No* = 31%, and *Don't Know* = 15%, are included to indicate whether or not parents were married when the offspring was born. This measure was based on the mother's relationship history matched to their child's birthday. A dichotomous variable indicating whether or not offspring ever lived with their biological father is included (*Yes* = 81%). A measure of the number of years since the offspring last lived with their father was created by subtracting offspring's age when their father left the household from their current age in the first wave. The household roster was used to create a dichotomous variable for whether or not the biological mother remarried (*Yes* = 32%). Offspring reported on their birth origin. Based

on these reports, a dichotomous variable was created to identify whether or not the offspring was born outside the United States (*Yes* = 3%). Offspring were asked whether or not their biological father had ever served time in jail in the third wave. A series of dummy variables indicating that the father did serve time (25%), did not serve time (69%), or the offspring did not know if the father ever served time (6%) were created.

Equivalent measures of offspring's depression and self-esteem were created using Wave 1 data in order to estimate changes in offspring's well-being in the time interval between the first and third waves, and to model the effect of nonresident father closeness and involvement on changes in well-being. The scale for Wave 1 depressive symptoms is an average of the exact same nine items using in the Wave 3 scale (felt bothered by things, could not shake the blues, felt just as good as other people, had trouble focusing, felt depressed, tired or sad, couldn't enjoy life, and felt that people disliked you). The self-esteem scale from Wave 1 includes measures of the extent to which offspring felt they had many good qualities, had a lot to be proud of, liked themselves just the way they are, and felt they were doing things just about right. The item measuring how satisfied offspring were with their lives is removed from the Wave 3 measure of self-esteem for the analyses that include self-esteem at both time points so that the two scales are identical. Change scores were calculated for self-esteem and depressive symptoms by subtracting Wave 1 values from Wave 3 values to estimate how much offspring's self-esteem increased or decreased (or stayed the same) between the two waves. The same procedure was used to create change scores for father and mother closeness.

Responses from Wave 1 are not comparable to the remaining young adult outcome variables, thus limiting the ability to analyze models that include the Wave 1 measures of the remaining dependent variables.

Method

A series of regression models will be tested to estimate the effect of early and current nonresident father closeness and involvement on offspring's educational attainment, psychological well-being, criminal behavior, and substance use during young adulthood. Ordinary least squares regression techniques will be implemented for the continuous outcomes of depressive symptoms and self-esteem, and logistic regression will be used for the dichotomous measures of high school dropout, post-high school training, going to college, college completion, criminal activity, violence, problem drinking, marijuana use, and drug use.

The first set of models will examine the bivariate relationships between the single item measures of father closeness during adolescence and young adulthood across the four dimensions of offspring's well-being (consisting of eleven outcome variables). Next, the measures of nonresident father closeness during adolescence and young adulthood will be combined in the same model to estimate the indirect relationship between nonresident father closeness during adolescence and young adult well-being. The relationship between father closeness during adolescence and offspring's well-being during the transition to adulthood may be partially or completely mediated by father closeness during young adulthood.

The next set of regression models will add controls for offspring's age, gender, and race, father and mothers' education, household income, payment of child support, whether or not the offspring was born outside of marriage, whether or not the offspring ever lived with their father, the number of years since they lived with their father, whether or not the offspring and father are

native born, whether or not the father ever served time in jail and mothers' remarriage to estimate the net effects of nonresident father closeness on young adult offspring's well-being after accounting for a number of other factors that may influence father closeness and offspring well-being.

Offspring's closeness to their mothers during adolescence and young adulthood will be added in the next set of models to estimate the unique contributions of fathers and mothers. After analyzing the associations between the single item measures of closeness, the scales for father and mother involvement will be examined in the same way to see if a multi-dimensional scale of involvement is a better predictor of young adult offspring well-being than closeness alone.

A separate set of analyses will be conducted to estimate the effect of fathers' financial contributions on offspring's well-being. Fathers' payment of child support will be used as a measure of their financial involvement during offspring's adolescence. Offspring's reports from the third wave of whether or not the father made any significant financial contributions in the past year will be used as a measure of fathers' financial support when the offspring are young adults.

The next step in the analyses will be to test for potential differences in the association between nonresident father involvement and offspring well-being between older and younger offspring, sons and daughters, racial groups, offspring born in the U.S. versus not, offspring with less educated versus more highly educated parents, low versus high family income, offspring born outside of marriage versus those born to married parents, offspring who never lived with their father and those that did live with their father, between offspring with and without a stepfather, offspring whose fathers were never imprisoned versus those that were, and

between offspring with high quality versus low quality mother child relationships. Interaction terms between each of these variables and the two measures of nonresident father closeness during adolescence and young adulthood will be added to the final models to test the moderating effects of these factors. Initially, each interaction term will be tested in a separate model containing the two components of the interaction term, the interaction term itself, and all other controls. For the final results, however, the interaction terms will be combined into a single model for each outcome variable.

A final step in the analyses will be to first estimate the effect of father closeness and involvement on offspring's feelings of self-esteem and depression during young adulthood while controlling for their initial levels during adolescence. Next, change scores will be used to estimate the effect of changes in father and mother-offspring closeness on changes in offspring's self-esteem and depressive symptoms.

All analyses will be conducted using the sample weight for samples that consist of data from wave 1 and wave 3 to correct for the differential probabilities of sample selection from factors such as the over sampling of minority groups. The survey (SVY) procedures in STATA (Stata Corporation, 2005) will be used to adjust the standard errors of the model estimates for the clustered and stratified design of Add Health (Chantala and Tabor, 1999).

Table 3.1: *Summary of Dependent Variables from Wave 3: Descriptive Statistics.*

	M or proportion	SD	Range		Wave	N
<i>Outcome Variables</i>						
Received post-high school education/training	.33	.47	0 – 1	---	3	1844
Completed college	.10	.30	0 – 1	---	3	1844
High school dropout	.09	.29	0 – 1	---	3	2755
Went to college	.53	.50	0 – 1	---	3	2755
Criminal activity	.20	.40	0 – 1	---	3	2751
Violence	.13	.34	0 – 1	---	3	2757
Marijuana use	.27	.44	0 – 1	---	3	2712
Drug use	.15	.35	0 – 1	---	3	2729
Problem drinking	.28	.45	0 – 1	---	3	2706
Depressive symptoms	.52	.47	0 – 3	.81	3	2785
Self-esteem	4.17	.57	1 – 5	.79	3	2785

Note: All values are weighted.

Table 3.2. *Correlations among Dependent Variables.*

	Received post-high school education/training	Completed college	High school dropout	Went to college	Criminal activity	Violence	Marijuana use	Drug use	Problem drinking	Depressive Symptoms	Self-esteem
Received post high school education/training	1.00	.48***	-.27***	.89***	.02	-.10***	-.02	.03	-.01	-.12***	.07**
Completed college	.48***	1.00	-.13***	.49***	-.01	-.09***	-.02	.03	.06*	-.08***	.09***
High school dropout	-.27***	-.13***	1.00	-.34***	-.03	.06**	.02	.03	.02	.05*	-.05*
Went to college	.89***	.49***	-.34***	1.00	.02	-.12***	-.04*	-.00	.01	-.09***	.11***
Criminal activity	.02	-.01	-.03	.02	1.00	.29***	.24***	.18***	.24***	.09***	-.10***
Violence	-.10***	-.09***	.06**	-.12***	.29***	1.00	.21***	.19***	.26***	.09***	-.02
Marijuana use	-.02	-.02	.02	-.04*	.24***	.21***	1.00	.47***	.30***	.02	-.09***
Drug use	.03	.03	.03	-.00	.18***	.19***	.47***	1.00	.27***	.05*	-.11***
Problem drinking	-.00	.06*	.02	.01	.24***	.26***	.30***	.27***	1.00	.09***	-.08***
Depressive symptoms	-.11***	-.08***	.05*	-.09***	.09***	.09***	.07**	.05*	.09***	1.00	-.44***
Self-esteem	.07**	.09***	-.05*	.11***	-.10***	-.02	-.09***	-.11***	-.08***	-.44***	1.00

Table 3.3. *Summary of Independent Variables from Wave 1 and Wave 3: Descriptive Statistics (weighted; N = 2785).*

	M or proportion	SD	Range		Wave
Father-child closeness and involvement					
Closeness during adolescence	3.11	1.41	1 – 5	---	1
Shared activities	.14	.24	0 – 1	.74	1
Communication	.32	.40	0 – 1	.85	1
Contact	2.11	1.49	0 – 5	.68	1
Father involvement during adolescence (standardized scale)	.04	.84	-1.05 – 2.20	.84	1
In touch with biological father	.80	.39	0 – 1	---	3
Closeness during young adulthood	2.96	1.45	1 – 5	---	3
Enjoy doing things with father	3.31	1.48	1 – 5	---	3
Father is warm and loving	3.43	1.50	1 – 5	---	3
Father involvement during young adulthood (standardized scale)	.02	.92	-1.61 – 1.03	.94	3
Receive financial contributions from father	.35	.48	0 – 1	---	3

Table 3.3, continued.	M or proportion	SD	Range		Wave
Mother-child closeness and involvement					
Closeness during adolescence	4.59	.74	1 – 5	---	1
Mother-child relationship quality scale during adolescence	4.34	.61	1 – 5	.86	1
Shared activities	.31	.22	0 – 1	.42	1
Communication	.60	.35	0 – 1	.51	1
Mother involvement during adolescence (standardized scale)	-.016	.69	-2.81 – 1.75	.50	1
In touch with biological mother	.96	.18	0 – 1	---	3
Closeness during young adulthood	4.40	.89	1 – 5	---	3
Enjoy doing things with mother	4.45	.80	1 – 5	---	3
Mother is warm and loving	4.51	.80	1 – 5	---	3
Mother involvement during young adulthood (standardized scale)	-.02	.81	-4.63 – .53	.78	3
Receive financial contributions from mother	.69	.46	0 – 1	---	3
Control variables					
Adolescent age	15.32	1.72	11 – 18	---	1
Adolescent gender (1=Female)	.54	.50	0 – 1	---	1
White	.62	.49	0 – 1	---	1
Black	.24	.43	0 – 1	---	1
Hispanic	.10	.29	0 – 1	---	1
Other	.04	.21	0 – 1	---	1
Father's education	4.97	2.19	1 – 8	---	1

Table 3.3, continued.	M or proportion	SD	Range		Wave
Mother's education	5.40	2.19	1 – 8	---	1
Household income (logged)	1.40	.36	0 – 2.88	---	1
Child support	.60	.49	0 – 1	---	1
Marital birth	.54	.50	0 – 1	---	1
Non-marital birth	.31	.46	0 – 1	---	1
Don't know if marital birth	.15	.36	0 – 1	---	1
Ever live with father (1 = Yes)	.81	.81	0 – 1	---	1
Number of years since lived with father	8.97	5.27	0 – 18	---	1
Presence of a stepfather	.32	.47	0 – 1	---	1
Offspring not born in the United States	.03	.17	0 – 1	---	1
Dad ever in jail	.25	.43	0 – 1	---	3
Dad never in jail	.69	.46	0 – 1	---	3
Don't know if father ever in jail	.06	.24	0 – 1	---	3
Offspring's self-esteem during adolescence	4.04	.67	1 – 5	.80	1
Offspring's depressive symptoms during adolescence	.68	.50	0 – 3	.80	1

Chapter 4

Sample Characteristics

Unlike mother involvement, which is fairly stable and less variable across different family systems, father involvement and father-offspring relationship quality are much more highly contingent upon the context within which it occurs. This is especially true for nonresident fathers who face many barriers to involvement once they no longer reside with their children, or may have never lived with their children. To gain an initial idea of how offspring with high quality relationships with their nonresident fathers differ from those with low quality relationships, the distribution of the control variables across low and high levels of father-offspring closeness during adolescence and young adulthood were examined. Offspring that reported their level of father-offspring closeness to be not at all close, a little close, or somewhat close are considered not close to their fathers. Offspring that reported very or extremely close father-offspring relationships are considered close. The results are summarized in tables 4.1 and 4.2.

The results presented in Table 4.1 suggest that there are significant compositional differences between offspring that are close to their nonresident biological fathers and those who are not. Offspring that reported close relationships to their fathers during adolescence are slightly younger, more likely to be male, and White. Offspring are closer to fathers that are more highly educated, pay child support, and never served time in jail. Household income is also slightly higher for offspring with close relationships with their fathers. Offspring born to married parents, and that lived with their fathers at some point in their lives are more likely to

report a close relationship to their fathers. Close relationships are also more common among offspring whose fathers left the household more recently. Living with a stepfather is also related to having a close relationship with a biological father. Mother's level of education and offspring's country of origin did not differ between the two groups of offspring.

These results demonstrate the variability of father-offspring relationships. Child, father and family structure characteristics all influence the type of relationship offspring have with their fathers. Younger offspring may be closer to their nonresident biological fathers because they are in the early stages of adolescence, and have not distanced themselves from their parents as much as older adolescents. The finding that male offspring are closer to their nonresident fathers than female offspring is consistent with previous research (Manning and Smock, 1999), although these findings remain inconclusive. Racial differences in levels of father-offspring closeness also remain unclear (King, Harris and Heard, 2004; Seltzer and Bianchi, 1988). This is partly due to the fact that different studies use different measures of nonresident father involvement and examine different types of outcomes, which makes it difficult to find consistent patterns.

One thing that is clear about the effects of race on father-offspring closeness is that at least some of the differences by race can be explained by racial differences in socioeconomic status and family history (King et al., 2004). The results from this study confirm that father-offspring closeness varies by fathers' education, financial support, and marital status at the time of the offspring's birth, whether or not the father lived with their offspring and for how long. Offspring with fathers that served time in jail at some point in their life are also less close to their fathers. Fathers that are in jail have fewer opportunities to spend time with their children, may lack the socioeconomic resources that promote child well-being, or may be involved in negative types of behavior that impact offspring's well-being.

An additional family structure characteristic that appears to influence father-offspring relationship quality is the presence of a stepfather during adolescence. Offspring are slightly closer to their nonresident fathers when they live with a stepfather. This finding is somewhat consistent with Aquilino's (2006) finding that mother's remarriage was associated with closer nonresident father-offspring relationships during young adulthood, although offspring that are close versus not close to their nonresident fathers during young adulthood do not differ in their probability of having a stepfather. The difference is only when offspring are adolescents. Adolescent offspring may turn to their biological fathers for support, when mothers remarry, especially if the change from a single-mother family to a stepfamily is a difficult transition for offspring.

By the time offspring reach young adulthood, there are fewer differences between offspring with and without a close relationship with their biological fathers. These results are shown in Table 4.2. Levels of closeness no longer differ by race, household income, or mother's remarriage. Many offspring are living apart from their parents at this time, suggesting that household income and living with a stepfather no longer influence father-offspring closeness once offspring leave their mother's household. The age differences between offspring with low versus high levels of closeness are not as big once they reach young adulthood, and slightly older offspring are more likely to be close to their biological fathers, rather than younger offspring, which was the case during adolescence. Older offspring may reconnect with their biological fathers once they leave their mother's household and assume more adult roles.

Offspring that are close to their fathers during young adulthood continue to differ from those that are not close in terms of gender, fathers' education, whether or not their parents were married when they were born, whether or not they ever lived with their father, the amount of

time fathers have been out of the household, fathers' payment of child support, and whether or not the father ever served time in jail. The significant differences that remain between young adult offspring with not close versus close relationships with their nonresident fathers suggest that family structure characteristics and characteristics of the father continue to influence offspring's relationships with their fathers even during young adulthood. This chapter provides evidence that father-offspring closeness does vary by child, parent and family characteristics. However, it is also important to examine whether or not different levels of closeness affect offspring's well-being. The next chapter summarizes the effect of father-offspring closeness during adolescence and young adulthood on multiple dimensions of offspring's well-being.

Table 4.1. *Distribution of Control Variables across Low and High Levels of Father-adolescent Closeness (in Percentages or Mean Levels; Weighted).*

	Not Close	Close	F
Age	15.5	15.1	41.7***
Female	60%	45%	58.4***
White	60%	64%	--
Black	25%	23%	--
Hispanic	10%	8%	--
Other	5%	4%	4.8*
Father's education	4.8	5.3	41.2***
Mother's education	5.3	5.5	1.8
Marital birth (versus non-marital birth)	55%	68%	40.1***
Ever live with father	77%	88%	50.0***
Number of years since lived with father	9.9	7.6	134.8***
Offspring not born in the US	5%	4%	.67
Presence of a stepfather	30%	35%	7.4**
Household income (logged)	1.38	1.41	5.0*
Child support	46%	72%	195.9***
Dad ever in jail (versus dad never served time)	31%	22%	22.7***

Note: N = 2785. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 4.2. *Distribution of Control Variables across Low and High Levels of Father-young adult Offspring Closeness (in Percentages or Mean levels; Weighted).*

	Not Close	Close	F
Age	15.3	15.4	5.6*
Female	58%	48%	29.1***
White	61%	64%	--
Black	25%	24%	--
Hispanic	10%	8%	--
Other	5%	4%	2.5
Father's education	4.8	5.2	24.4***
Mother's education	5.4	5.5	1.3
Marital birth (versus nonmarital birth)	58%	64%	9.1**
Ever live with father	78%	87%	36.6***
Number of years since lived with father	9.8	7.7	113.2***
Offspring not born in the US	5%	4%	.79
Presence of a stepfather	31%	33%	1.8
Household income	1.4	1.4	1.4
Child support	50%	68%	98.1***
Dad ever in jail (versus dad never served time)	32%	20%	44.1***

Note: N = 2785. * $p < .05$. ** $p < .01$. *** $p < .001$.

Chapter 5

Father Closeness, Father Involvement and Young Adult Offspring Well-being

Previous research shows that nonresident father closeness and involvement improves offspring's well-being during childhood and adolescence. While the amount of research on the role of nonresident fathers in shaping offspring well-being in these earlier stages of the life course has continued to increase, almost no research examines the influence of nonresident fathers on older offspring's well-being during the transition to adulthood. This chapter addresses this gap in the literature by examining the effects of father-offspring closeness and involvement during adolescence and young adulthood on multiple dimensions of offspring's well-being during young adulthood.

Father-offspring Closeness.

The effects of father-offspring closeness during adolescence and young adulthood on offspring well-being are summarized in Tables 5.1 and 5.2. Model 1 for each outcome variable shows the effect of father-adolescent closeness, Model 2 shows the effect of father-young adult closeness, Model 3 shows the net effects of father-offspring closeness at both points in time, and Model 7 summarizes the unique effects of father and mother closeness on the eleven measures of young adult offspring well-being. All models include controls for offspring's age, gender, race, father's education, mother's education, household income, father's payment of child support, whether or not offspring's parents were married when they were born, whether or not the offspring ever lived with their father, the number of years since offspring last lived with their

father, mothers' remarriage, whether or not offspring were born outside the United States, and whether or not the father ever served time in jail. The control variables that had a significant effect on offspring's well-being are summarized in the complete model (Model 9) in Table 5.2.

The results in Tables 5.1 and 5.2 show that father-offspring closeness during adolescence has no effect on offspring's well-being during young adulthood. Closeness during young adulthood, however, significantly improves offspring's self-esteem and lowers depressive symptoms. Controlling for offspring's level of closeness during adolescence (see Model 3) does not change these effects.

Mother's closeness also increases offspring's self-esteem and decreases their depressive symptoms. This is the case for mother-offspring closeness during young adulthood, as well as during adolescence. Offspring's earlier relationship with their mothers during adolescence appears to have a longer-term impact on offspring well-being than father's closeness. Mother closeness during adolescence also reduced offspring's use of marijuana. Controlling for mother's closeness during adolescence and young adulthood reduces the negative effect of father's closeness during young adulthood on depressive symptoms to nonsignificance (see Model 7).

Model 9 presented in Table 5.2 is the complete final model for closeness, showing the effect of father-offspring closeness on each measure of offspring's well-being while controlling for mothers' closeness, and showing the effects of the control variables.

Offspring's age reduces the probability of dropping out of high school, being involved in criminal activity, and problem drinking. Age is positively associated with obtaining post high school levels of education and completing college. Younger offspring do not have as much time

to complete college, and may be in the early stages of frequent criminal activity and problem drinking.

Offspring's gender plays an important role in offspring's problem behavior. The results presented in Model 9 suggest that males are more likely to drop out of high school, and have higher rates of criminal behavior, violence, drug use, marijuana use, and problem drinking. Females are more likely to pursue education after high school, go to, and finish college, have lower levels of self-esteem, and higher levels of depression. Consistent with prior research, these results demonstrate gender differences in internalizing and externalizing behavior. Females are much more likely to exhibit internalizing behavior problems (self-esteem and depression), while males are more likely to exhibit externalizing behavior problems (substance use, antisocial behavior, etc.).

The only racial differences found are between Whites and Blacks. White offspring are more likely to use drugs, smoke marijuana and experience drinking related problems.

Father and mother's socioeconomic status effects offspring's well-being. Offspring with more highly educated fathers and mothers are more likely to continue their schooling beyond high school, more likely to go to college, and more likely to completed college. Household income also increases the probability of greater educational attainment. These findings are consistent with previous research showing that offspring's education is positively correlated with their parents' level of education, and that offspring from higher SES families have higher educational attainment. Greater household income also appears to increase self-esteem and decrease depressive symptoms among young adult offspring.

Parental education and father's payment of child support had some unexpected results on offspring's well-being. Father's education is associated with greater levels of criminal activity.

More highly educated fathers may have had higher levels of involvement with their offspring when they lived together, making their departure from the household more difficult for offspring. Father's payment of child support is associated with higher levels of drug use. The positive relationship between child support and drug use may only be true for offspring from higher socioeconomic backgrounds where they may already have greater financial ability to buy drugs.

Two additional father characteristics are associated with offspring's well-being. If offspring are not native born, they are less likely to smoke marijuana, less likely to have drinking related problems, and are less depressed. Foreign born offspring may have closer ties to their families and other sources of social support that protect them against substance use and higher levels of depressive symptoms. Fathers that once served time in jail appear to have a negative effect on offspring well-being by reducing offspring's chances of post high school education, completing college, and increasing their chances of marijuana use and problem drinking.

Family structure also influences offspring's well-being. Offspring that lived with their biological father at some point in their lives, and for whom more years since the father left the household have passed are more likely to smoke marijuana. However, offspring have higher levels of self-esteem if more time has passed since they lived with their father.

Father-offspring Involvement

Scales of father and mother involvement were created to examine the effects of additional dimensions of the father and mother-offspring relationship on offspring's well-being. The father involvement scale during adolescence includes measures of contact, participation in shared activities, communication, and father-offspring closeness. The involvement scale for fathers when offspring are young adults includes measures of contact with their father, closeness, how warm and loving the father is and how much they enjoy doing things with their fathers. Similar

scales were created for mother's involvement during adolescence and young adulthood.

However, the mother involvement scale during adolescence does not contain a measure of contact since all offspring lived with their mothers at that time. This scale also includes additional dimensions of the mother-offspring relationship (i.e., how much their mother cares about them, how much their mother encourages them to be independent, how satisfied they are with communication with their mothers, and how satisfied they are with their overall mother-offspring relationship).

Models 4, 5 and 6 in Table 5.1 summarize the effects of father involvement on offspring's well-being. The full model with fathers' involvement, mothers' involvement and controls is presented in Table 5.3. Father involvement during adolescence does not significantly affect offspring's well-being until you control for involvement during young adulthood (see Model 6). After controlling for father's involvement during young adulthood, offspring with more highly involved fathers during their adolescence are more likely to go to college. This effect is not significant in the full model that controls for mother involvement (Model 10, Table 5.3). Model 10 also shows that controlling for mother's involvement during adolescence and young adulthood makes father involvement during adolescence a significant predictor of greater levels of problem drinking. Offspring may actually experience more problem behaviors such as problems related to drinking if their fathers were highly involved during adolescence and then withdrew from their child's life a few years later when offspring begin the transition to adulthood.

Father's involvement during young adulthood, rather than adolescence, increases offspring's self-esteem and marijuana use. However, the significant effect on marijuana use is no longer present in the model that controls for involvement during adolescence.

The unique effects of mother and father's involvement are summarized in Table 5.3. Similar to mother's closeness, mother's involvement appears to have a greater influence on offspring's well-being than father's involvement. Mother involvement during adolescence is related to offspring's educational achievement (post high school education, go to college, and complete college), fewer internalizing problems (self-esteem and depressive symptoms), and fewer externalizing behaviors (drug use and marijuana). Mother's involvement during young adulthood also increases self esteem and decreases depression. Controlling for mother involvement at the two time periods does not reduce the effect of father involvement during young adulthood on self esteem.

The control variables have similar effects on offspring well-being with parental involvement in the models rather than closeness (see Table 5.3). All of the results are the same except that Hispanics now have higher levels of depressive symptoms compared to Whites, mother's education is no longer related to depression, income no longer effects self-esteem or depression, and child support is not related to offspring's chances of completing college.

Father Closeness versus Father Involvement

The components of each involvement scale were analyzed separately in order to determine whether a specific dimension of father or mother involvement had more influence on well-being when the overall scale of involvement was significant , but the single item of parental closeness was not significant in the full models for father-offspring closeness and involvement (Tables 5.2 and 5.3). The father involvement scale during adolescence significantly predicted problem drinking. Results summarizing the effects of the separate components of the father involvement scale on problem drinking are presented in Table 5.4.

Contact is the only component of the father involvement scale that is significantly related to problem drinking. The two measures that make up the contact component are a measure of how often the child stayed overnight with the father, and how often they talked in person, on the phone, or in a letter. Staying overnight appears to be what is driving the significant relationship between contact during adolescence and problem drinking during young adulthood. This measure of father involvement does not capture what is actually going on within the father-child relationship. Some forms of contact may negatively effect offspring well-being, and staying overnight in a negative or risky environment may increase offspring's risk of problem drinking. Fathers may not be adequately supervising and monitoring their offspring's activities when they are staying with them.

Instances where the mother involvement scale was significant, but not mother closeness, occurred for post high school education, going to college, completing college, and offspring's drug use. Mother's involvement during adolescence was significantly associated with each of these outcomes. Involvement during young adulthood was associated with completing college. The same procedures were performed where the components of the mother involvement scales were analyzed separately to identify the dimensions of mother involvement that had the strongest influence on offspring well-being. These results are summarized in Table 5.5.

The first component of the mother-involvement scale, mother-child relationship quality, was not significant in any of the models shown in Table 5.5. This provides initial evidence that offspring's relationship quality with their mothers doesn't capture the range of things mothers do with their children to improve offspring well-being. Mother's involvement in shared activities was a significant predictor of each of the four variables. For offspring's probability of obtaining some level of post high school education and completing college, the mother-offspring

communication scale was also significant. Within the shared activities scale, attending religious services, playing sports, going to the movies, and shopping were all significantly related to at least one of the outcome variables. Even though most of the outcome variables that are significantly associated with the mother involvement scale relate to educational attainment, talking about school related issues was not significantly related to any of the variables. However, talking about school, grades and other school related issues with mothers does significantly increase offspring's probability of completing college. Mother's involvement appears to be more variable than fathers, and mothers engage in many different types of positive interactions with their children. The mother involvement during young adulthood scale was significant in the "completed college model," but none of the individual items from that scale were significant when analyzed separately.

Overall, there were not too many differences in the results when using the single item measure of father –offspring closeness compared to the father involvement scale. Involvement was a stronger predictor for problem drinking, and can be explained by offspring's overnight visits. For fathers that do not reside with their children, a measure of relationship quality captures much of the father-child relationship and is an acceptable measure to use to predict child outcomes. Except for problem drinking, the key finding that offspring have lower self-esteem when they have better relationships with their fathers is the same regardless of what measure of father involvement is used.

For mothers, however, mother involvement during adolescence significantly predicted post high school education, going to college, completing college, and drug use when closeness did not. Involvement in shared activities and communication were the strongest predictors of each dimension of well-being. Most offspring report being close to their mothers, which

contributes to a low level of variability in the single-item measure of mother-offspring closeness used in the models. The mother-involvement scale captures a wider range of dimensions of the mother-offspring relationship, and represents a different construct than closeness alone.

Analyses of the separate components in the involvement scales suggest that the differences between using the involvement scale compared to closeness for fathers are not strong enough to justify the use of father involvement rather than closeness in future analyses. Father and mother-offspring closeness will be used in all future analyses to simplify the results, and make the measures of relationship quality more comparable across mothers and fathers and across the two time periods of the study. Future research that focuses more specifically on offspring's relationships with their mothers would benefit from having measures of multiple dimensions of the mother-child relationship. However, this is not the main focus of the current study.

Father's Financial Contributions

Fathers' payment of child support when offspring were adolescents, and fathers' financial contributions when offspring were young adults, were analyzed to determine if father's financial involvement, net of relationship quality, improve offspring's well-being. Fathers that pay child support are generally more likely to be involved with their children in other ways. In this study, the correlation between father's payment of child support and father-offspring closeness during adolescence is .30. The correlation between child support and closeness during young adulthood is slightly lower, but significant ($r = .24$). Father's financial contributions to their young adult offspring is also correlated with closeness during adolescence ($r = .33$) and young adulthood ($r = .47$). Table 5.6 summarizes the results from analyses that focus specifically on the effect of father's financial involvement on offspring well-being during young adulthood.

Father's financial contributions during young adulthood improve offspring's chances for educational attainment by increasing their probability of obtaining some level of post high school education and training, going to college, and completing college. This is an important finding that has not been demonstrated in previous research. Nonresident fathers are often limited in their ability to get involved in their children's lives, and improve the well-being of their offspring. One clear way they can get involved when offspring are older, most likely living on their own, and exploring new adult roles, is to provide financial support to help their offspring successfully navigate their transition into adulthood. The results from this study suggest that fathers may be helping their children pay for college or other types of education and training.

Although it appears that father's financial involvement benefits offspring, father's payment of child support and their financial support when offspring are older are also associated with increased drug use, marijuana use, and lower self-esteem during young adulthood. The direction of the effect of father's financial involvement on offspring well-being may depend on offspring's socioeconomic status. Offspring from more affluent families, that use drugs, may already be in a financial position to buy drugs, and may have fathers that have the financial resources to pay higher levels of child support. The negative relationship between fathers' financial contributions during young adulthood and offspring's self-esteem should be interpreted with caution because we do not know the causal relationship between the two variables. It may be that offspring have lower self-esteem due to economic stress, or other types of stressors, and offspring may turn to their fathers for financial support.

Moderating Effects of Child, Parent, and Family Structure Characteristics

Analyses using interaction terms were conducted to test for the potential moderating effects of offspring's age, gender and race, father's education and criminal experiences, mother's

education, remarriage and closeness to offspring during adolescence and young adulthood, household income, and whether or not offspring were born to married parents or had ever lived with their father. Interaction terms were created by multiplying each of these measures by the measures of father-offspring closeness in Wave 1 and Wave 3. All of the interaction terms, along with each main effect variable, were entered into a single equation for each outcome measure. A significant interaction suggests that the effect of father closeness on a specific dimension of offspring's well-being differs by the child, parent or family structure characteristics of interest. Creating a single model with all of the interaction variables provides some insight into how the child, parent and family background variables differ as a group for offspring with low versus high levels of closeness.

The models for which there were significant interaction results are summarized in Table 5.7. There were no significant interactions in the models predicting high school dropout, criminal activity or violence. For the remaining dependent variables, most of the interactions were not significant, and those that were, were significant only at the .05 level. These values do not represent large differences in the effect of father closeness on each dimension of offspring well-being at different levels of offspring's age, race, immigrant status, parental education, household income, parents' marital status at the time of the offspring's birth, whether or not the offspring ever lived with their father, mother's remarriage, father's criminal experience, and mother-offspring closeness. The lack of significant and consistent interactions fits well with studies of nonresident father involvement and offspring's well-being at younger ages (Amato and Gilbreth, 1999; King, 1994b; King and Sobolewski, 2006).

The only instance where a variable significantly moderated the relationships between father-offspring closeness during adolescence in a consistent pattern was for the mother-

offspring relationship during adolescence. The direction of the interactions for mother-offspring closeness suggests that offspring benefit most from close relationships to both biological parents.

Summary of Results

The analyses for this chapter examine the role of multiple dimensions of nonresident father involvement during adolescence and young adulthood on offspring's well-being during young adulthood. Eleven outcome measures were included that represent a broad range of indicators of well-being related to educational attainment, psychological well-being, involvement in criminal and violent activities, and substance abuse. Because the role of nonresident fathers in offspring's well being during the transition to adulthood has not been studied previously, it was not clear what dimensions of father involvement would be most salient when offspring are older, and it was not clear what types of outcomes should be analyzed. The goal of this chapter was to explore as many possible pathways between nonresident father involvement and young adult offspring well-being as possible, while taking into account the mother-child relationship and the influence of a number of additional factors related to father involvement and child well-being.

One of the main findings from this chapter is that father closeness and father involvement are *not* associated with most of the measures of offspring well-being included in the study. Father closeness during adolescence was not associated with any of the dependent variables. Father closeness during young adulthood was only associated with higher self-esteem and lower depression. However, the association between father closeness and depression became nonsignificant after controlling for the mother-child relationship. These results suggest that close father-child relationships improve offspring's feelings of well-being and self-confidence, but do not protect them from behaviors such as criminal activity, violence, drug use, marijuana use, and problem drinking. The quality of the father-child relationship was also not related to

any of our measures of educational attainment. A scale of father involvement comprised of multiple dimensions of involvement and the father-child relationship was no better than closeness for predicting higher levels of problem drinking, which contradicts the study's hypothesis that father involvement decreases risky behaviors like problem drinking.

Closeness to mothers was also not related to many of the measures of offspring's well-being besides self-esteem and depressive symptoms, although they were stronger than the effects for fathers. These results are consistent with prior research that finds a stronger effect of mother's closeness and involvement on offspring's well-being compared to the effect of nonresident fathers. Mother's involvement in shared activities and communication with their children are additional components to the mother-child relationship that improve offspring's well-being. These aspects of the father-child relationship do not provide any added benefit to the father-child relationship.

Fathers' financial involvement during both adolescence and young adulthood was positively related to offspring's post high school education, going to college, and completing college. However, fathers' financial contributions were also associated with drug use, marijuana use, and lower self-esteem. Although the process through which fathers' payment of child support decrease well-being is unclear, and requires further exploration, the positive relationship between fathers' financial contributions and offspring's educational attainment is consistent with the assertion that one way nonresident fathers can get involved with their young adult offspring is by helping them pay for school and expenses related to obtaining higher levels of education.

The weak effects of father and mother closeness and involvement on offspring well-being suggest that the mechanisms that transmit resources from parents to their children when offspring are younger may not operate in the same way when offspring become young adults,

and then move through adulthood. The negative influence of father closeness on certain aspects of well-being also suggest that there are events or experiences occurring during the transition to adulthood that may lower offspring's well-being, which may then draw fathers into their lives. These are topics that are addressed in more detail in the final two chapters, and need to be considered in future research on nonresident father involvement and offspring well-being during the transition to adulthood.

Table 5.1. *Summary Table for the Effects of Father and Mother Closeness and Involvement on Multiple Dimensions of Young Adult Offspring Well-being (Unstandardized Regression Coefficients, Weighted).*

		HS Dropout ^a	Post HS Education ^a	Went to College ^a	Completed College ^a	Criminal Activity ^a	Violence ^a
Model 1	Father closeness during adolescence	-.06	-.04	.03	-.05	-.03	-.02
Model 2	Father closeness during young adulthood	.07	-.07	-.02	.04	-.06	-.07
Model 3	Father closeness during adolescence	-.11	-.00	.04	-.11	.00	.02
	Father closeness during young adulthood	.12	-.07	-.04	.09	-.06	-.08
Model 4	Father involvement during adolescence	-.17	.09	.15	.08	-.10	-.03
Model 5	Father involvement during young adulthood	.14	-.12	-.01	.17	-.04	-.06
Model 6	Father involvement during adolescence	-.26	.17	.18*	-.01	-.09	.00
	Father involvement during young adulthood	.22	-.18*	-.07	.17	-.01	-.06
Model 7	Father closeness during adolescence	-.11	-.00	.05	-.11	.01	.02
	Father closeness during young adulthood	.12	-.07	-.04	.09	-.06	-.07
	Mother closeness during adolescence	-.02	-.06	-.06	.00	-.09	-.06
	Mother closeness during young adulthood	-.09	.01	.04	-.04	-.07	-.10
Model 8	Father involvement during adolescence	-.24	.11	.15	-.17	-.07	.02
	Father involvement during young adulthood	.20	-.14	-.05	.29	-.01	-.08
	Mother involvement during adolescence	-.24	.33**	.26**	.78***	-.14	-.17
	Mother involvement during young adulthood	-.02	-.09	-.02	-.23*	-.09	-.01
	(n)	2754	1844	2754	1844	2751	2757

Note: Each model includes controls for offspring age, gender, race, father's education, mother's education, household income, father's payment of child support, nonmarital birth, whether or not offspring ever lived with father, the number of years since offspring last lived with their father, mother's remarriage, whether or not offspring was born outside the US, and whether or not the father ever served time in jail.

^aLogistic regression. ^bOrdinary least squares regression.

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

Table 5.1, continued.

		Drug Use ^a	Marijuana Use ^a	Problem Drinking ^a	Self Esteem ^b	Depression ^b
Model 1	Father closeness during adolescence	.02	.08	.03	.02	-.01
Model 2	Father closeness during young adulthood	-.07	.06	-.01	.05***	-.02*
Model 3	Father closeness during adolescence	.08	.07	.04	-.01	.00
	Father closeness during young adulthood	-.11	.03	-.03	.06***	-.02*
Model 4	Father involvement during adolescence	-.04	.15	.10	.03	-.02
Model 5	Father involvement during young adulthood	-.04	.15*	-.01	.06***	-.03
Model 6	Father involvement during adolescence	-.02	.10	.13	.01	-.01
	Father involvement during young adulthood	-.03	.11	-.05	.06**	-.02
Model 7	Father closeness during adolescence	.09	.08	.05	-.01	.01
	Father closeness during young adulthood	-.11	.03	-.03	.05***	-.02
	Mother closeness during adolescence	-.14	-.16*	-.08	.06**	-.05**
	Mother closeness during young adulthood	.00	-.04	.09	.11***	-.05**
Model 8	Father involvement during adolescence	.03	.14	.15*	-.01	-.00
	Father involvement during young adulthood	-.07	.09	-.07	.06***	-.02
	Mother involvement during adolescence	-.39***	-.27**	-.16	.10***	-.04*
	Mother involvement during young adulthood	.04	-.06	.12	.12***	-.06***
	(n)	2729	2712	2706	2785	2785

Note: Each model includes controls for offspring age, gender, race, father's education, mother's education, household income, father's payment of child support, nonmarital birth, whether or not offspring ever lived with father, the number of years since offspring last lived with their father, mother's remarriage, whether or not offspring was born outside the US, and whether or not the father ever served time in jail.

^aLogistic regression. ^bOrdinary least squares regression.

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

Table 5.2. *Summary Table for the Effects of Father and Mother Closeness on Multiple Dimensions of Young Adult Offspring Well-being, Final Model Showing all Variables (Unstandardized Regression Coefficients, Weighted).*

		HS Dropout ^a	Post HS Education ^a	Went to College ^a	Completed College ^a	Criminal Activity ^a	Violence ^a
Model 9	Father closeness during Adolescence	-.15	-.00	.03	-.11	.00	.02
	Father closeness during Young adulthood	.15	-.07	-.04	.09	-.06	-.07
	Mother closeness during Adolescence	.16	-.06	-.05	.00	-.09	-.06
	Mother closeness during Young adulthood	-.14	.01	.03	-.04	-.08	-.10
	Offspring age	-.14**	.41***	.05	.58***	-.09*	-.09
	Female ^c	-.71**	.50*	.47***	.74**	-.97***	-1.65***
	Black ^d	-.16	.14	.18	.01	-.02	.21
	Hispanic ^d	.13	.31	.10	-.50	.42	.11
	Other ^d	-.21	-.31	-.11	.13	-.08	.02
	Father's education	-.10	.13**	.15***	.25***	.10*	-.06
	Mother's education	-.31***	.20***	.21***	.15**	-.03	.04
	Household income	-.99***	.66*	.51**	2.00***	.06	-.25
	Child support	-.33	.07	.04	.47	.10	.28
	Non-marital birth ^e	-.12	-.05	-.17	-.10	-.09	.09
	Don't know marital birth	.06	-.22	-.19	-.48	.18	.25
	Ever live with father	.66	.16	.13	-.01	.23	.14
	Number of years since father left	.04	-.01	.01	-.02	.03	.01
	Presence of a stepfather	.23	-.19	-.20	-.49	-.22	-.11
	Offspring not U.S. born	.13	-.44	.44	.02	-.46	.08
	Father served time ^f	.17	-.39*	-.20	-.58	.14	.33
	Don't know if father served time ^f	-.22	-.36	-.22	.30	.34	-.93*
	(n)	2754	1844	2754	1844	2751	2757

^a Logistic regression. ^b Ordinary least squares regression. ^c Reference category = male. ^d Reference category = white. ^e Reference category = marital birth. ^f Reference category = father never served time.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5.2, continued.

		Drug Use ^a	Marijuana Use ^a	Problem Drinking ^a	Self Esteem ^b	Depression ^b
Model 9	Father closeness during Adolescence	.09	.08	.05	-.01	.01
	Father closeness during Young adulthood	-.11	.03	-.03	.05***	-.02
	Mother closeness during Adolescence	-.14	-.16*	-.08	.06**	-.05**
	Mother closeness during Young adulthood	.00	-.04	.09	.11***	-.05**
	Offspring age	-.05	-.04	-.11**	-.01	-.01
	Female ^c	-.65***	-.54***	-.67***	-.08**	.13***
	Black ^d	-1.38***	-.53**	-.73***	.06	.05
	Hispanic ^d	.36	-.19	-.01	-.02	.16**
	Other ^d	.08	-.09	.25	-.02	.09
	Father's education	.03	.06	.00	-.01	.00
	Mother's education	.05	.04	.02	.01	-.01*
	Household income	.20	.10	.36	.06	-.01
	Child support	.34*	.12	.13	-.03	-.03
	Non-marital birth ^e	.21	.23	-.06	-.01	-.01
	Don't know marital birth	.19	.24	.20	.00	-.01
	Ever live with father	.53	.44*	.17	.06	-.05
	Number of years since father left	.03	.05***	.02	.01*	-.00
	Presence of a stepfather	-.24	-.23	-.04	-.01	-.04
	Offspring not U.S. born	-.26	-.79*	-1.02*	.10	-.12*
	Father served time ^f	.12	.39*	.30*	.01	.02
	Don't know if father served time ^f	-.04	.05	-.36	-.03	-.02
	(n)	2729	2712	2706	2785	2785
	R2				.0812	.0757

^aLogistic regression. ^bOrdinary least squares regression. ^cReference category = male. ^dReference category = white. ^eReference category = marital birth. ^fReference category = father never served time.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5.3. *Summary Table for the Effects of Father and Mother Involvement on Multiple Dimensions of Young Adult Offspring Well-being, Final Model Showing all Variables (Unstandardized Regression Coefficients, Weighted).*

		HS Dropout ^a	Post HS Education ^a	Went to College ^a	Completed College ^a	Criminal Activity ^a	Violence ^a	
Model 10	Father involvement during adolescence	-.24	.11	.11	-.17	-.07	.02	
	Father involvement during young adulthood	.20	-.14	-.05	.29	-.01	-.08	
	Mother involvement during adolescence	-.24	.33**	.27**	.78**	-.14	-.18	
	Mother involvement during young adulthood	-.02	-.09	-.03	-.23*	-.09	-.01	
	Offspring age	-.16**	.43**	.07	.61***	-.10*	-.10	
	Female ^c	-.74***	.53*	.48***	.72**	-.94***	-1.62***	
	Black ^d	-.18	.13	.18	-.00	-.03	.20	
	Hispanic ^d	.09	.32	.12	-.50	.41	.11	
	Other ^d	-.25	-.34	-.09	.11	-.10	.00	
	Father's education	-.10	.13**	.14***	.25***	.10*	-.06	
	Mother's education	-.30***	.19***	.20***	.14**	-.03	.05	
	Household income	-.99***	.66*	.52**	2.08***	.08	-.24	
	Child support	-.31	.04	-.01	.43	.12	.27	
	Non-marital birth ^e	-.14	-.07	-.17	-.22	-.10	.09	
	Don't know marital birth	.06	-.17	-.18	-.43	.17	.24	
	Ever live with father	.66	.16	.13	-.11	.22	.15	
	Number of years since Father left	.04	-.01	.01	-.03	.03	.01	
	Presence of a stepfather	.20	-.17	-.19	-.44	-.21	-.12	
	Offspring not U.S. born	.08	-.41	.50	-.08	-.49	.08	
	Father served time ^f	.14	-.37*	-.17	-.56	.14	.34	
	Don't know if father served time ^f	-.24	-.29	-.15	.51	.34	-.91*	
	(n)		2754	1844	2754	1844	2751	2757

^aLogistic regression. ^bOrdinary least squares regression. ^cReference category = male. ^dReference category = white. ^eReference category = marital birth. ^fReference category = father never served time.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5.3, continued.

		Drug Use ^a	Marijuana Use ^a	Problem Drinking ^a	Self Esteem ^b	Depression ^b
Model 10	Father involvement during adolescence	.03	.14	.15*	-.01	-.00
	Father involvement during young adulthood	-.07	.09	-.07	.06***	-.02
	Mother involvement during adolescence	-.39***	-.27**	-.16	.10***	-.04*
	Mother involvement during young adulthood	.04	-.06	.12	.10***	-.06***
	Offspring age	-.06	-.04	-.11*	-.01	-.01
	Female ^c	-.60***	-.50***	-.64***	-.12***	.15***
	Black ^d	-1.35***	-.51**	-.70***	.07	.05
	Hispanic ^d	.37	-.19	.00	-.01	.16**
	Other ^d	.08	-.06	.28	-.02	.09
	Father's education	.03	.05	-.00	-.01	.00
	Mother's education	.06	.05	.02	.01	-.01
	Household income	.23	.11	.36	.05	.00
	Child support	.37*	.10	.10	-.03	-.03
	Non-marital birth ^e	.21	.23	-.05	-.01	-.01
	Don't know marital birth	.15	.24	.20	.01	-.01
	Ever live with father	.56	.46*	.19	.07	-.06
	Number of years since Father left	.03	.06***	.03	.01*	-.00
	Presence of a stepfather	-.24	-.22	-.05	-.00	-.04
	Offspring not U.S. born	-.27	-.77*	-1.00*	.09	-.12*
	Father served time ^f	.12	.39*	.31*	.01	.02
	Don't know if father served time ^f	-.07	.07	-.36	-.03	-.02
	(n)	2729	2712	2706	2785	2785
	R2				.0921	.0781

^a Logistic regression. ^b Ordinary least squares regression. ^c Reference category = male. ^d Reference category = white. ^e Reference category = marital birth. ^f Reference category = father never served time.
 * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5.4. *Analysis of Specific Components from the Father Involvement Scale for Problem Drinking, where Father Involvement, but not Closeness, was Significant (Unstandardized Logistic Regression Coefficients, Weighted).*

	Problem Drinking
Father involvement during adolescence	.15*
Contact	.10*
Stay overnight	.10**
Frequency of talking (in person, phone, letter)	.04
Father-offspring closeness	.05
Involvement in shared activities	.17
Shopping	---
Sports	---
Attend religious service	---
Movies	---
Work on a school project	---
Father-offspring communication	.27
Talk about dating	---
Talk about school work/grades	---
Talk about other school issues	---
Father involvement during young adulthood	---
In touch with nonresident father	---
Father-offspring closeness	---
Father is warm and loving	---
Enjoy doing things with father	---

Note: Each component entered separately. Each model includes controls for offspring age, gender, race, father's education, mother's education, household income, father's payment of child support, nonmarital birth, whether or not offspring ever lived with father, the number of years since offspring last lived with their father, mother's remarriage, whether or not offspring was born outside the US, whether or not the father ever served time in jail, mother involvement during young adulthood, father involvement during adolescence and mother involvement during young adulthood.

^aLogistic regression. ^bOrdinary least squares regression.

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

Table 5.5. *Analysis of Specific Components from the Mother Involvement Scale for Outcomes Where Mother Involvement, but not Closeness, was Significant (Unstandardized Regression Coefficients, Weighted).*

	Post HS Education	Went to College	Completed College	Drug Use
Mother involvement during adolescence	.33**	.27**	.78**	-.39***
Mother-offspring relationship quality	.05	.08	.21	-.23
Involvement in shared activities	.97**	1.01***	1.55**	-1.52***
Shopping	-.17	-.08	-.07	-.44*
Sports	.53*	.42*	-.36	.10
Attend religious service	.63***	.54***	1.08***	-.44*
Movies	.27	.36**	.63*	-.49**
Work on a school project	.13	.19	.03	-.62
Mother-offspring Communication	.61**	.28	1.62***	-.26
Talk about dating	.39**	---	.63*	---
Talk about school work/grades	.18	---	1.02***	---
Talk about other school issues	.36*	---	.82**	---
Mother involvement during young adulthood	---	---	-.23*	---
In touch with mother	---	---	-.23	---
Mother-offspring closeness	---	---	-.03	---
Mother is warm and loving	---	---	-.10	---
Enjoy doing things with mother	---	---	-.07	---

Note: Each component entered separately. Each model includes controls for offspring age, gender, race, father's education, mother's education, household income, father's payment of child support, nonmarital birth, whether or not offspring ever lived with father, the number of years since offspring last lived with their father, mother's remarriage, whether or not offspring was born outside the US, whether or not the father ever served time in jail, mother involvement during young adulthood, father involvement during adolescence, and mother involvement during young adulthood.

^aLogistic regression. ^bOrdinary least squares regression. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5.6. *Multivariate Results for the Effect of Father's Financial Contributions on Multiple Dimensions of Offspring Well-being. (Unstandardized Regression Coefficients, Weighted)*

	Post High school education ^a				Went to College ^a				Completed College ^a			
	1	2	3	4	1	2	3	4	1	2	3	4
Father's payment of child support during adolescence	.03	---	-.00	-.05	.05	---	.01	.02	.43	---	.35	.45
Father's financial contributions during young adulthood	---	.21	.21	.37*	---	.32*	.31*	.41**	---	.68*	.64*	.75*
Father closeness during adolescence	---	---	---	-.01	---	---	---	.04	---	---	---	-.01
Father closeness during young adulthood	---	---	---	-.12	---	---	---	-.09	---	---	---	-.14
Mother closeness during adolescence	---	---	---	-.07	---	---	---	-.07	---	---	---	-.05
Mother closeness during young adulthood	---	---	---	.01	---	---	---	.04	---	---	---	-.03
Offspring age	.40***	.40***	.40***	.41***					.59***	.62***	.63***	.63***
Female ^c	.53***	.54***	.54***	.50**	.47***	.47***	.47***	.45***	.75*	.48*	.50*	.45*
Father's education	.13**	.13**	.13**	.14**	.15***	.15***	.15***	.15***	.25***	.22***	.20***	.21***
Mother's education	.20***	.20***	.20***	.20***	.20***	.20***	.20***	.20***	.15**	.18**	.18**	.18**
Household income	.66*	.66*	.66*	.64*	.52**	.52**	.52**	.51**	.85**	.81**	.84	.86**

Note: All controls included in each model. Only significant coefficients shown for controls.

^a Logistic regression. ^b Ordinary least squares regression. ^c Reference category = male. ^d Reference category = father never served time. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5.6, continued.

	Drug use ^a				Marijuana use ^a				Self-esteem ^b			
	1	2	3	4	1	2	3	4	1	2	3	4
Father's payment of child support during adolescence	.32*	---	.32	.33*	.20	---	.15	.11	.00	---	.00	-.02
Father's financial contributions during young adulthood	---	.10	.05	.16	---	.34**	.35**	.33*	---	-.01	-.01	-.10*
Father closeness during adolescence	---	---	---	.08	---	---	---	.07	---	---	---	-.01
Father closeness during young adulthood	---	---	---	-.13	---	---	---	-.02	---	---	---	.06***
Mother closeness during adolescence	---	---	---	-.14	---	---	---	-.16*	---	---	---	.06**
Mother closeness during young adulthood	---	---	---	.00	---	---	---	-.04	---	---	---	.11***
Female ^c	-.62***	-.62***	-.62***	-.65***	-.54***	-.54***	-.54***	-.54***	-.11**	-.11**	-.11**	-.08*
Black ^d	-1.37***	-1.41***	-1.38***	-1.38***	-.52**	-.57***	-.55***	-.55***	.09*	.09*	.09*	
Hispanic ^d	.38	.35	.38	.36	-.18	-.21	-.19	-.20	-.03	-.03	-.03	
Other ^d	.10	.06	.09	.06	-.09	-.14	-.12	-.13	-.03	-.03	-.03	
Mother's education										.02*	.02*	.02*
Non-marital birth ^e	.19*											
Don't know marital birth	.16											
Ever live with father					.44*	.44*	.44*	.44*				
Number of years since father left					.05**	.05***	.05***	.05***				
Offspring not U.S. born					-.80*	-.79*	-.79*	-.78*				
Father served time ^f					.39*	.39*	.42*	.40*				
Don't know if father served time ^f					-.00	.05	.07	.07				

Note: All controls included in each model. Only significant coefficients shown for controls.

^aLogistic regression. ^bOrdinary least squares regression. ^cReference category = male. ^dReference category = white. ^eReference category = marital birth.

^fReference category = father never served time.

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

Table 5.7. *Interaction Models Testing for Differences in the Effect of Father Closeness on Offspring Well-being at Different Levels of Each Control Variable (Unstandardized Regression Coefficients, Weighted).*

	Post HS Education ^a	Went to College ^a	Completed College ^a	Drug Use ^a	Marijuana Use ^a	Problem Drinking ^a	Self Esteem ^b	Depression ^b
Father-offspring closeness during adolescence	-.85	-.15	1.03	2.5**	1.01	.83	-.22	-.09
Father-offspring closeness during young adulthood	-.19	-.38	2.13	-1.08	.65	.24	.05	.04
Mother-offspring closeness during adolescence	-.38	-.34	-.18	.05	.23	.05	-.01	-.02
Father-offspring closeness during adolescence X Mother-offspring closeness during adolescence	-.02	.04	.03	-.31*	-.11	-.05	.04*	-.04*
Father-offspring closeness during young adulthood X Mother-offspring closeness during adolescence	.13	.05	.03	.06	-.01	-.00	-.02	.03*
Mother-offspring closeness during young adulthood	.39	.09	.37	.19	.01	.30	.15**	-.04
Father-offspring closeness during adolescence X Mother-offspring closeness during young adulthood	-.04	-.00	-.02	.02	.03	-.05	-.01	.00
Father-offspring closeness during young adulthood X Mother-offspring closeness during young adulthood	-.10	-.02	-.11	-.09	-.05	-.02	-.00	-.00

Table 5.7, continued.

	Post HS Education ^a	Went to College ^a	Completed College ^a	Drug Use ^a	Marijuana Use ^a	Problem Drinking ^a	Self esteem ^b	Depression ^b
Age	.28*	.03	.98***	.06	.13	-.04	-.02	-.02
Father-offspring closeness during adolescence X Age	.03	-.01	.01	.03	-.04	-.02	-.00	.01
Father-offspring closeness during young adulthood X Age	.02	.02	-.11	.00	-.00	-.01	.01	-.01
Female ^c	.99**	.81**	1.88*	.81*	-.41	-.33	-.19*	.03
Father-offspring closeness during adolescence X Female	-.13	-.01	-.47*	.04	-.08	.02	.02	.00
Father-offspring closeness during young adulthood X Female	-.03	-.10	.13	.09	.04	-.14	.01	.03
Black ^d	.22	.50	.07	.70	-.41	-.79	.31**	-.13
Father-offspring closeness during Adolescence X Black	-.10	-.13	-.20	.54*	-.21	-.23	-.05	.05
Father-offspring closeness during young adulthood X Black	.10	.03	.18	.30	.18	.26*	-.03	.02
Hispanic ^d	-.21	.06	1.25	.26	-.38	.03	.01	-.07
Father-offspring closeness during adolescence X Hispanic	-.26	-.28	-.62	.17	-.04	-.09	.02	.07
Father-offspring closeness during young adulthood X Hispanic	.48*	.32	.05	.01	.09	.06	-.03	.02

Table 5.7, continued.

	Post HS Education ^a	Went to College ^a	Completed College ^a	Drug Use ^a	Marijuana Use ^a	Problem Drinking ^a	Self esteem ^b	Depression ^b
Other ^d	-1.10	-.14	-2.69	-1.07	-.57	.28	.29	-.12
Father-offspring closeness during adolescence X Other	.37	.29	.63	.34	.23	-.12	-.03	.04
Father-offspring closeness during young adulthood X Other	-.04	-.27	.26	.01	-.08	.09	-.07	.03
Father's education	.16	.15	.34*	.28*	.06	.27**	-.02	-.00
Father-offspring closeness during adolescence X Father's education	-.00	.01	-.09	-.03	.03	-.07	-.01	.00
Father-offspring closeness during young adulthood X Father's education	.00	-.01	.08	-.05	-.03	-.02	.01	-.00
Mother's education	.11	.20*	.29	-.03	.03	-.04	.03	-.01
Father-offspring closeness during adolescence X Mother's education	.03	.01	-.13*	.00	.02	.02	.01	.00
Father-offspring closeness during young adulthood X Mother's education	-.00	-.01	-.51	.02	-.02	-.01	-.01*	-.00
Household Income	.31	.25	2.53*	-.09	-.08	-.10	-.00	-.02
Father-offspring closeness during adolescence X Household income	.26	.07	.29	-.21	.11	.09	.06	.01
Father-offspring closeness during young adulthood X Household income	-.18	.01	.13	.34	-.06	.07	-.05	-.00

Table 5.7, continued

	Post HS Education ^a	Went to College ^a	Completed College ^a	Drug Use ^a	Marijuana Use ^a	Problem Drinking ^a	Self esteem ^b	Depression ^b
Nonmarital birth ^c	.41	.24	.28	.66	.68	-.13	-.10	.09
Father-offspring closeness during adolescence X Nonmarital birth	.23	-.02	-.53*	.10	.06	.11	.04	-.02
Father-offspring closeness during young adulthood X Nonmarital birth	-.40**	-.12	-.07	-.25	-.21	-.27	-.01	-.01
Don't know marital birth ^c	-.37	-.41	.49	1.47*	1.09*	-1.33	-.09	-.08
Father-offspring closeness during adolescence X Don't know marital birth	.32	.37*	-.06	-.24	-.24	-.11	.07	-.05
Father-offspring closeness during young adulthood X Don't know marital birth	-.24	-.29	-.08	-.17	-.02	.20	-.04	.02
Ever live with father	.31	.18	-.86	1.07	.61	.13	-.16	-.08
Father-offspring closeness during adolescence X Ever live with father	.07	-.00	.04	-.16	-.16	.10	-.03	.03
Father-offspring closeness during young adulthood X Ever live with father	-.07	-.02	-.19	-.11	-.02	-.04	.09*	-.02
Stepfather in household	-.77	-.56	1.02	.38	.60	.38	.06	-.06
Father-offspring closeness during adolescence X Stepfather in household	-.01	.07	.28	-.06	-.22*	-.22	-.02	.01
Father-offspring closeness during young adulthood X Stepfather in household	.20	.04	.53	-.15	-.02	.18	.00	-.01

Table 5.7, continued.

	Post HS Education ^a	Went to College ^a	Completed College ^a	Drug Use ^a	Marijuana Use ^a	Problem Drinking ^a	Self esteem ^b	Depression
Offspring not U.S. born	1.56*	1.21	-.07	-.68	-.31	-.11	.43*	-.25*
Father-offspring closeness during adolescence X Offspring not U.S. born	.12	.21	-.64	.67	-.06	.30	-.11	.03
Father-offspring closeness during young adulthood X Offspring not U.S. born	-.90***	-.49	-.04	-.61	-.11	-.26	.01	.01
Father served time ^f	-.62	-.12	-.71	.54	.47	.52	-.03	-.03
Father-offspring closeness during adolescence X Father served time	.00	-.04	-.04	-.21	-.14	-.01	.04	.02
Father-offspring closeness during young adulthood X Father served time	.09	.01	.07	.05	.11	-.07	-.03	-.00
Don't know if father served time ^f	.08	-.02	.98	.84	.62	.36	.00	-.01
Father-offspring closeness during adolescence X Don't know if father served time	-.23	-.02	-.75	-.45	-.19	-.33	-.02	-.04
Father-offspring closeness during young adulthood X Don't know if father served time	.04	-.08	.38	.10	-.04	.08	.00	.07

Note: All main effect variables and interactions entered into one model per outcome variable.

^aLogistic regression. ^bOrdinary least squares regression. ^cReference category = male. ^dReference category = white. ^eReference category = marital birth. ^fReference category = father never served time.

* $p < .05$.

Chapter 6

Predicting Changes in Offspring Well-being

Longitudinal studies of the same group of respondents over-time enable researchers to analyze how changes in relationships or behaviors, and the occurrence of specific events influence changes in a particular outcome variable (Johnson, 1995). The longitudinal nature of the Add Health makes it possible to model the effect of father-offspring closeness on changes in offspring well-being, and to estimate the effect of *changes* in closeness on changes in well-being. Analyses were conducted to examine changes in offspring's self-esteem and depressive symptoms between Waves 1 and 3 of the Add Health. These were the only two dependent variables for which the same exact measures were available in Wave 1. Results from these analyses are presented in Tables 6.1, 6.2, and 6.3. Table 6.1 summarizes the amount of change that occurred in offspring's levels of closeness with their fathers and mothers, and their levels of self-esteem and depressive symptoms between the first and third waves of the study. Change scores were calculated by subtracting Wave 1 values from Wave 3 values for each pair of variables.

About a quarter (28%) of offspring experienced an increase in closeness to their fathers between the first and third waves. 35% experienced a decrease in closeness, and 37% experienced no change in closeness. A much larger proportion of offspring experienced no change or an increase in closeness to their mothers (58% didn't change and 16% increased). In terms of changes in well-being, half of respondents experienced an increase in self-esteem

between the two waves, and more than half (57%) experienced a decline in depressive symptoms.

The models in Table 6.2 model change in self-esteem and depressive symptoms by including lagged variables for Wave 1 self-esteem and depressive symptoms as explanatory variables. Measures of the father-offspring relationship at both time points are also included as explanatory variables (Finkel, 1995). The models in Table 6.3 use change scores to regress changes in father-offspring closeness on changes in self-esteem and depressive symptoms (Allison, 1990; Johnson, 1995). Change scores were created by subtracting measures of father and mother closeness, self-esteem and depressive symptoms in Wave 3 from these same measures in Wave 1. The effects of mother-offspring closeness and changes in mother-offspring closeness are also included in the models to estimate the unique contributions of fathers and mothers.

The results in Table 6.2 show that father-offspring closeness during young adulthood is significantly and positively related to increases in offspring's self-esteem. The effect of father closeness during young adulthood remains significant after controlling for mother-offspring closeness during adolescence and young adulthood (Model 4). The results in Model 4 suggest that current levels of father and mother closeness when offspring are young adults have unique effects on changes in offspring's self-esteem. There were no significant controls in the final model predicting changes in self-esteem (Model 5).

Models 6 through 10 summarize the results for models predicting changes in depressive symptoms. Similar to the findings for self-esteem, father and mother-offspring closeness during young adulthood are associated with changes in depression. The negative coefficients suggest that parental closeness is related to declines in offspring's depression over-time. The only

controls that were significantly related to changes in depressive symptoms were offspring's age, gender and being Hispanic. Younger offspring were more likely to experience an increase in depressive symptoms. Females were also likely to be more depressed during the transition to adulthood compared to males, and, compared to whites, Hispanics were more likely to experience an increase in depressive symptoms.

The results in Table 6.3 use change scores to show how *changes* in father and mother-offspring closeness influence changes in offspring's self-esteem and depressive symptoms, and represent less biased estimates of the effect of father-offspring closeness on changes in well-being compared to the use of lagged dependent variables (Allison, 1990). Model 1 in Table 6.3 shows that increases in father-offspring closeness significantly predict increases in offspring's self-esteem. However, the association between changes in father closeness and changes in self-esteem becomes nonsignificant when the change score for the mother-offspring relationship is entered into the model (Model 2). This differs from the final model for self-esteem in Table 6.2 where the father-offspring relationship during young adulthood significantly predicts higher levels of self-esteem in the final models.

The positive association between changes in mother closeness and self-esteem remains significant after all controls are entered into the model (Model 3). Model 3 also shows that females experienced an increase in self-esteem compared to males in the time period between adolescence and young adulthood.

Models 4, 5 and 6 summarize the effect of changes in father and mother closeness on changes in depressive symptoms. Increases in father and mother offspring-closeness are negatively associated with a change in depressive symptoms, suggesting that offspring's depressive symptoms decline when they become closer to their parents between Waves 1 and 3.

None of the controls significantly predicted a change in depressive symptoms when using the change score method (Table 6.3, Model 6). These results are similar to the results for depressive symptoms presented in Table 6.2.

Summary of Results

The analyses in this chapter show that offspring's relationship with their father when offspring are young adults is positively associated with increases in offspring's self-esteem and decreases in offspring's depressive symptoms. Positive *changes* in the father-offspring relationship are also associated with increased self-esteem and reduced levels of depressive symptoms. Father-offspring closeness during young adulthood predicts lower levels of internalizing behavior in the form of self-esteem and depressive symptoms at the same time point. The results presented here differ from these earlier results by showing that closeness to fathers also *increases* offspring's well-being from adolescence to young adulthood. Fathers that are able to improve their relationships with their children as they move from adolescence into the transition to adulthood can have a positive effect on offspring's increasing levels of well-being. This was the case for 28% of the sample. Offspring also benefited from increases in the mother-offspring relationship.

Table 6.1. *Summary of Changes in Father-offspring Closeness, Mother-offspring Closeness, Offspring's Self-esteem and Offspring's Depressive Symptoms (percentages; weighted).*

Amount of change	Father-offspring closeness	Mother-offspring closeness	Offspring self-esteem	Offspring depressive symptoms
Decrease	35%	26%	33%	57%
No Change	37%	58%	18%	11%
Increase	28%	16%	49%	32%

Table 6.2. *Predicting the Effects of Father and Mother Closeness on Changes in Offspring's Self-esteem and Depressive Symptoms during Young Adulthood by Controlling for Initial Levels of Self-esteem and Depressive Symptoms during Adolescence (Unstandardized Ordinary Least Squares Regression Coefficients; Weighted).*

	Offspring self-esteem during young adulthood					Offspring depressive symptoms during young adulthood				
	1	2	3	4	5	6	7	8	9	10
Offspring self-esteem during adolescence	.27***	.26***	.26***	.25***	.24***					
Offspring depressive symptoms during adolescence						.30***	.30***	.30***	.29***	.27***
Father-offspring closeness during adolescence		.01	-.01	-.01	-.01		-.01	.01	.01	-.01
Father-offspring closeness during young adulthood			.04**	.03**	.04**			-.03**	-.03**	-.02*
Mother-offspring closeness during adolescence				.01	.01				-.01	-.01
Mother-offspring closeness during young adulthood				.11***	.10***				-.05**	-.05**
Offspring age					-.01					-.02*
Female ^a					-.06					.10***
Black ^b					.08					.03
Hispanic ^b					.02					.13**
Other ^b					.02					.04
Father's education					-.00					.01
Mother's education					.01					-.00
Household income					.07					-.02
Child support					-.03					-.03
Non-marital birth ^c					-.04					-.01
Don't know marital birth ^c					-.01					-.00
Ever live with father					.03					-.04
Number of years since father left					.00					.00
Presence of a stepfather					-.01					-.04
Offspring not U.S. born					.12					-.11
Father served time ^d					.03					.03
Don't know if father served time ^d					-.01					.01
R ²	.0923	.0931	.1002	.1277	.1381	.0950	.1052	.1131	.1243	.1541

^a Reference category = male. ^b Reference category = white. ^c Reference category = marital birth. ^d Reference category = father never served time in jail.

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

Table 6.3. *The Effect of Changes in Father and Mother-offspring Closeness on Changes in Offspring's Self-esteem and Depressive Symptoms in the Time Interval between Adolescence and Young Adulthood (Unstandardized Ordinary Least Squares Regression Coefficients; Weighted).*

	Change in Self-esteem ($Y_{\text{Young Adulthood}} - Y_{\text{Adolescence}}$)			Change in Depressive Symptoms ($Y_{\text{Young Adulthood}} - Y_{\text{Adolescence}}$)		
	1	2	3	4	5	6
Change in Father-offspring closeness ($X_{\text{Young Adulthood}} - X_{\text{Adolescence}}$)	.03*	.02	.02	-.04***	-.03**	-.03*
Change in Mother-offspring closeness ($X_{\text{Young Adulthood}} - X_{\text{Adolescence}}$)		.12***	.12***		-.07***	-.07***
Offspring age			.00			-.03
Female ^a			.08*			-.00
Black ^b			-.07			.00
Hispanic ^b			.06			.05
Other ^b			.06			-.10
Father's education			.00			.01
Mother's education			-.00			.01
Household income			.09			-.06
Child support			-.08			-.01
Non-marital birth ^c			-.07			-.02
Don't know marital birth ^c			-.02			.02
Ever live with father			-.01			-.01
Number of years since father left			-.00			.00
Presence of a stepfather			.01			-.03
Offspring not U.S. born			.18			-.07
Father served time ^d			.04			.06
Don't know if father served time ^d			-.02			.08
R ²	.0040	.0310	.0477	.0092	.0255	.0442

^aReference category = male. ^bReference category = white. ^cReference category = marital birth.

^dReference category = father never served time in jail.

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

Chapter 7

Discussion and Conclusions

Previous research suggesting that father involvement contributes to offspring well-being has resulted in growing pressure for fathers to be highly involved parents. However, high rates of divorce and increasing rates of nonmarital fertility limit many fathers' opportunities to be involved in the lives of their offspring (Amato and Sobolewski, 2004). Approximately 50% of all children will live in a household without their biological fathers at some point in their childhood (Bianchi, 1990). Previous research shows that divorce and living in a single parent household negatively affects children's educational and occupational attainment, psychological well-being, physical health, engagement in risky behaviors such as delinquency and substance use, and interpersonal relationships throughout the life course (Amato and Booth, 1997; Cherlin, Chase-Lansdale, and McRae, 1998; Manning and Lamb, 2003; McLanahan and Sandefur, 1994).

One explanation for why children in single-parent households are at risk in terms of lower well-being is that father absence results in a loss of economic and social resources that are necessary for positive offspring development (Amato, 1998). Not only are children with nonresident fathers at a financial disadvantage, but they also suffer from lower social capital in the form of close parent-child relationships, parental monitoring and support, cooperative mother-father relationships, and parents' social ties to the community that are associated with offspring well-being. The strength of the father-child relationship is challenged when fathers live apart from their children, making it difficult for fathers to transmit valuable social and economic resources to their children.

Despite the barriers to nonresident father involvement, fathers' continued presence in the lives of their children after they leave the household helps to reduce the

negative effects of divorce and living with a single mom, and is believed to be positively associated with a number of indicators of child well-being. The main goal of this study was to determine whether or not the social capital that nonresident fathers provide to their offspring during adolescence and the transition to adulthood improves offspring's educational attainment and psychological well-being, and reduces criminal behavior and substance use during the transition to adulthood.

The majority of research on nonresident father involvement focuses on the effects of involvement on offspring's well-being during childhood or adolescence. What is less clear is how fathers' relationship with their children continues to influence offspring well-being during the transition to adulthood, and throughout offspring's adult years. Research on the effects of nonresident father involvement during adolescence and young adulthood on offspring's experiences as young adults is virtually nonexistent.

Using a sample of offspring with nonresident fathers ($N = 2,785$) from the first and third waves of the National Longitudinal Study of Adolescent Health (Add Health), this study tested three hypotheses related to nonresident father involvement and offspring well-being during young adulthood. Participants in the Add Health study were adolescents during the first wave, and were ages 18 to 24 at the time of the third interview, making it ideal for studying the relationships between adolescent behaviors and relationships and well-being during young adulthood.

The first hypothesis of the study stated that father involvement when offspring are young adults is positively related to offspring's well-being at the same point in time. This hypothesis was tested in Chapter 5 by examining the relationship between father closeness and involvement during young adulthood on eleven dimensions of offspring well-being, also measured during

young adulthood. Closeness was a single-item measure of how close offspring felt to their nonresident biological fathers at the time of the first and third interviews. Involvement was a four item scale that captures multiple dimensions of the father-child relationship including contact, closeness, involvement in shared activities, and communication between fathers and offspring

Results from these analyses show that father closeness during young adulthood significantly increases offspring's self-esteem, but was not significantly related to any of the other outcome variables. Father involvement was also related to fewer internalizing behaviors during young adulthood. These results offer modest support for the first hypothesis. Parents, especially nonresident fathers, may have more influence on offspring's personal feelings of well-being and self-concept than on offspring's actual behaviors during the transition to adulthood. Feeling that your father loves you and feeling close to your father is likely to increase offspring's feelings of self-worth and overall sense of well-being. Peers, romantic partners, and other non-relatives may play a greater role than parents in shaping offspring's decisions and actions regarding drug and alcohol abuse, criminal activity and other problem behaviors that lower offspring well-being during the transition to adulthood.

The second hypothesis of the study was that father involvement during adolescence is positively related to offspring well-being during young adulthood. The quality of the father-adolescent relationship and higher levels of involvement by fathers when offspring were adolescents may directly influence offspring well-being during young adulthood by socializing offspring, teaching them pro-social behaviors, and increasing levels of well-being during adolescence that continue to benefit offspring during young adulthood. Father involvement during adolescence may also indirectly influence well-being later in life by improving the quality

of father-offspring relationships during young adulthood. The current relationship between fathers and offspring during young adulthood may be what drives the association between nonresident father involvement during adolescence and young adult offspring well-being.

To test this hypothesis, the influence of father-offspring closeness and involvement during adolescence on each dimension of offspring well-being was examined with and without measures of closeness and involvement during young adulthood. Results from these analyses showed that father-offspring closeness during adolescence was not associated with any of the outcome variables. Father-offspring involvement, compared to closeness, during adolescence was positively related to problems related to drinking. This finding contradicts with the second hypothesis, and suggests that father involvement may not always benefit children.

Although prior research finds evidence of a significant association between nonresident father involvement and offspring well-being during adolescence, the effects of nonresident father involvement are generally modest; especially when the influence of mother involvement is controlled (Amato and Gilbreth, 1999; King and Sobolewski, 2006). Further, nonresident father involvement is beneficial for some, but not all, indicators of well-being.

Given the modest findings during adolescence, it is possible that the effect of nonresident father involvement on well-being when offspring reach young adulthood is even more modest, or nonexistent. Once offspring gain more independence from their parents, form new relationships, and acquire new adult roles, the quality of nonresident father-offspring relationships may decline, and fathers may no longer be able to transmit social resources to their offspring. Therefore, an alternative hypothesis for the proposed study was that nonresident father involvement during adolescence and young adulthood

would have no effect on offspring well-being during young adulthood. The presence of only a few significant associations between father closeness and father involvement and offspring well-being provides strong support for this final hypothesis.

In the process of testing the hypotheses developed in the study, several additional tests and analyses were conducted that examine the link between father involvement and offspring well-being during young adulthood in more detail. Chapter 4 compares offspring that report high levels of closeness to their nonresident fathers during adolescence and young adulthood to those that report low levels of closeness in terms of a number of child, parent and family background factors that previous research suggests are related to father involvement and offspring well-being.

Results from these analyses showed that there are significant compositional differences between offspring that are close to their nonresident biological fathers and those who are not. Offspring that reported close relationships to their fathers during adolescence are slightly younger, more likely to be male, and White. Offspring are closer to fathers that are more highly educated, pay child support, and never served time in jail. Household income is also slightly higher for offspring with close relationships with their fathers. Offspring born to married parents, and that lived with their fathers at some point in their lives are more likely to report a close relationship to their fathers. Close relationships are more common among offspring whose fathers left the household more recently. Living with a stepfather is also related to having a close relationship with a biological father. Mother's level of education and offspring's country of origin did not differ between the two groups of offspring.

The differences between offspring with low and high levels of closeness to their nonresident fathers during adolescence suggest that offspring that have better quality

relationships with their fathers are advantaged in other ways (fathers are more highly education, more likely to pay child support, and less likely to have been incarcerated), that are likely to enhance offspring's well-being. Offspring's family background is also important for shaping future father-offspring relationships. Fathers that live with their children, and that are married to their child's mother when the child is born may feel more responsible for the welfare of their child, and more committed to the father role.

By the time offspring reach young adulthood, there are fewer differences between offspring with and without a close relationship with their biological fathers. Levels of closeness no longer differ by race, household income, or mother's remarriage. Many offspring are living apart from their parents at this time, suggesting that household income and living with a stepfather no longer influence father-offspring closeness once offspring leave their mother's household. The age differences between offspring with low versus high levels of closeness are not as big once they reach young adulthood, and slightly older offspring are more likely to be close to their biological fathers, rather than younger offspring, which was the case during adolescence. Older offspring may reconnect with their biological fathers once they leave their mother's household and assume more adult roles.

Offspring that are close to their fathers during young adulthood continue to differ from those that are not close in terms of gender, fathers' education, whether or not their parents were married when they were born, whether or not they ever lived with their father, the amount of time fathers have been out of the household, fathers' payment of child support, and whether or not the father ever served time in jail. The significant differences that remain between young adult offspring with not close versus close relationships with their nonresident fathers suggest that family structure characteristics and characteristics of the father continue to influence

offspring's relationships with their fathers even during young adulthood. These findings also show that early family transitions and relations between fathers and children set the stage for relationship ties in later stages of the life course.

The quality of the mother-child relationship and mother's involvement were also analyzed to assess the unique contributions made by mothers and fathers to offspring's well-being during young adulthood. Mother involvement, and to a lesser extent, mother-child closeness, had a more positive impact on offspring well-being than did fathers' involvement or closeness. Controlling for offspring's closeness to mothers reduces the negative effect of father's closeness during young adulthood on depressive symptoms to nonsignificance. However, closeness to fathers continues to be positively associated with self-esteem even after controlling for mothers' closeness.

Embedded within the hypotheses that father closeness and involvement during adolescence and young adulthood positively influences offspring's well-being during young adulthood, was the idea that the benefits of father involvement may not be the same for all groups of offspring. Interaction models were created to determine whether or not the associations between father-offspring closeness and offspring well-being differed by any of the contextual variables include in the study. The only pattern that resulted from those analyses was one that suggested that offspring gain additional benefits from being close to their fathers when they are also close to their nonresident mothers. This finding lends further support to the conclusion that offspring accumulate advantage when they are close to both parents. The social capital offspring gain from fathers and mothers is greater when offspring are able to develop close ties to both parents.

In addition to father closeness and father involvement, the study also examined the influence of father's financial involvement on offspring's well-being during the transition to adulthood. Financial involvement during adolescences was measured by whether or not fathers paid any amount of child support in a "typical" month. Financial involvement during young adulthood was measured by whether or not father's made any recent financial contributions to their offspring. There were some mixed results from the analyses of father's financial involvement. Father's financial contributions during young adulthood improved offspring's chances for educational attainment by increasing their probability of obtaining some level of post high school education and training, and going to college.

Although it appears that father's financial involvement benefits offspring, father's payment of child support and their financial support when offspring are older were also associated with increased drug use, marijuana use, and lower self-esteem during young adulthood.

The finding that father involvement does not predict most measures of offspring well-being during young adulthood, and that involvement can be negatively associated with some aspects of offspring well-being, suggests that there may be unknown factors that are influencing the father-child relationship and offspring's well-being. The lack of research on nonresident father involvement and young adult offspring well-being makes it difficult to conceptualize the mechanisms or processes that may be occurring at this stage of the life course. It may be that additional dimensions of father involvement not included in this study, such as more specific measures of monitoring and support during adolescence, measures of the co-parenting relationship between mothers and fathers, or unexplored measures of the father-offspring relationship that are unique to the period of young adulthood, are more effective in shaping

young adult offspring's well-being. In the future, it will be necessary to identify the specific ways fathers get involved with their children as they get older, and the processes through which fathers can have a positive impact on offspring's well-being.

Given the distinct nature young adulthood as a stage of development, it is also likely that the experiences and events that are unique to the transition to adulthood have a stronger impact on offspring's feelings of well-being during this time, than their past and current relationships with their fathers. This study would have benefited from an examination of offspring's characteristics during young adulthood such as whether or not they had moved out of their mother's house, their relationships status, and whether or not they had children, and the role of these types of transitions on offspring's relationships with their parents, and their own well-being.

The finding that fathers may be more involved (financially or otherwise) with their young adult children when they have problems with drinking or lower self-esteem suggests that the characteristics of the child influence nonresident father involvement, rather than involvement influencing well-being. Until recently, the majority of research on father involvement and child well-being conceptualized offspring's well-being as a consequence of father involvement. There is, however, an increasing amount of research that focuses on child well-being as a predictor of father involvement. A child effects model supports this conceptualization of the relationship between child well-being and father involvement.

The child effects model views children as active agents in the shaping of their own environments, including parents attitudes, and parent-child relationships (Crockenberg & Leerkes, 2003; Kerr & Stattin, 2003). Research on resident father families shows evidence for the child effects model. For example, studies show that mothers report less confidence in their

parenting skills and more symptoms of stress and depression when their infants express higher levels of negative emotions (Crockenberg and Leerkes, 2003). Similarly, studies of adolescents have shown that successful parental monitoring is primarily a function of children's willingness to disclose information to parents, rather than parents' active efforts to supervise their children (Crouter and Head, 2002). A recent study suggests that these findings also apply to non-resident father-adolescent relationship quality (Hawkins, Amato, & King, 2005). In this study, the authors found that the association between father involvement and higher levels of offspring's well-being during adolescence was completely driven by child effects. These results suggest that children do not benefit from fathers' involvement. Instead, fathers are more likely to get involved with their children if they are happier, and have fewer behavior problems. Such offspring may be easier to get along with than more troubled offspring, or may be better at developing interpersonal relationships with peers and adults. In the future, models should be developed that estimate the reciprocal associations between nonresident father involvement and adolescent well-being.

The final component of this study in which change scores were used to assess the influence of changes in father and mother closeness on changes in offspring's well-being provided some initial insight into how father involvement benefits offspring that start out at specific levels of closeness, self-esteem and depressive symptoms. Fathers that are able to improve their relationships with their children as they move from adolescence into the transition to adulthood can have a positive effect on offspring's increasing levels of well-being in the form of fewer internalizing behaviors. Offspring also benefited from increases in the mother-offspring relationship.

To summarize the key directions future research should take when addressing the question of whether or not nonresident father involvement matters for offspring's well-being during the transition to adulthood, the first step to take is to examine the types of transitions offspring experience during young adulthood, with a focus on how these experiences influence offspring well-being and father involvement. A second direction for future research would be to examine the reciprocal causality between father involvement and offspring's well-being at two points in time. It may be that offspring's well-being is really what determines whether or not fathers stay involved, or get more involved, in their children's lives during the transition to adulthood.

Even though gaps in the literature on the relationship between nonresident father involvement and offspring well-being during young adulthood remain, findings from this study represent the first step toward understanding the long-term influence of nonresident fathers on offspring's well-being during the transition to adulthood. This study builds on previous research by examining the role of nonresident father involvement at two time points, by analyzing the unique contributions to offspring's well-being of fathers and mothers, and by focusing on multiple dimensions of offspring's well-being during the transition to adulthood. The effects of nonresident father-child relationship quality, father's financial contributions, and father involvement on offspring's educational attainment, depressive symptoms, self-esteem, criminal activity, violent behavior, and substance use are examined. Measures of mother involvement and mother-offspring relationship quality are also included in the models.

Results from the study shows that certain aspects of the nonresident father-child relationship are positively associated with higher levels of self-esteem among young adult offspring, even after accounting for the mother-child relationship. Fathers' financial

contributions are a key source of support during offspring's transition to adulthood and contribute to offspring's greater educational attainment. The results also suggest that offspring benefit from improved relationships with their nonresident fathers as they move through the transition to adulthood. Offspring are best off when they have close relationships to both their mothers and fathers. Future research should build on the findings presented in this study and continue to explore the ways in which nonresident father involvement improves the lives of offspring across the life course.

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