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# Predicting Low-Income Fathers’ Involvement and the Effect of State-level Public Policies on Fathers' Involvement with their Young Children 

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# Predicting Low-Income Fathers' Involvement and the Effect of State-level Public Policies on Fathers' Involvement with their Young Children 

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## Dissertation

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## Dedication

To Maya and Justin with all my love

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# Predicting Low-Income Fathers' Involvement and the Effect of State-level Public Policies on Fathers' Involvement with their Young Children 

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This dissertation examines low-income fathers' involvement with their young children using the Fragile Families and Child Wellbeing (FFCW) data. Chapter 3 entitled, "He Said, She Said: Comparing Father and Mother Reports of Father Involvement," compares mother and father reports of fathers' frequency of involvement in various activities and in measures of emotional involvement. This chapter finds that fathers report spending 17.6 percent more time engaged in 11 activities with their young children than mothers report the father spending. How parental disagreement is measured yields starkly different results given the underlying distribution of these data.

Chapter 4 entitled, "Estimating the Impact of Child Support and Welfare Policies on Fathers' Involvement," is a longitudinal analysis combining three waves of the FFCW data with annual, state-level policy data on child support enforcement and welfare policies. This chapter examines the impact of policies on fathers' involvement over time. Fathers' involvement is operationalized as accessibility, responsibility, and engagement. Using parents that are unmarried at the time of the focal child's birth, this chapter finds
that public policies do influence fathers’ involvement after controlling for individual social and demographic characteristics. Policies may be operating in conflicting ways to both increase and decrease fathers' involvement. For example, fathers' daily engagement is positively affected by stronger paternity establishment policies but is negatively affected by stronger child support enforcement collection rates and the welfare family cap policy.

Chapter 5 entitled, "Two Dads Are Better Than One: Biological and Social Father Involvement," examines whether biological and social fathers are substitutes or complements in a child's life and how biological fathers and social fathers impact the mother's frequency of involvement. This chapter finds that resident social fathers contribute as much time to the focal child as resident biological fathers. Factors that increase the overall parental frequency of involvement include having: a resident biological or social father, native-born parents, a biological father who had a very involved father, and a positive relationship between the biological parents. Factors that decrease overall parental frequency of involvement include: the father's new partner, the father's incarceration, a mother's other children, and the child's increasing age.

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## Chapter 1: Introduction

Current policies and programs at the federal- and state-level such as child support enforcement, federal marriage promotion policies, and recent welfare reform legislation (i.e., the Personal Responsibility Work Opportunity Reconciliation Act (PRWORA) of 1996) are all aimed at increasing the involvement of fathers in their children’s lives. Given efforts by federal and state policy makers urging fathers to provide material, emotional, and physical support to their children, this dissertation examines fathers' involvement with their children and the social and demographic characteristics of parents and their children that may affect fathers' involvement. Moreover, this dissertation aims at understanding whether state-level public policies, specifically child support enforcement and welfare reform policies, impact fathers’ involvement after controlling for individual characteristics.

The analyses conducted for this dissertation are particularly relevant within the current political and policy environments. There are four key reasons-described briefly and then in greater depth-why this research is particularly timely given the growing literature about fathers and given the continuing debate about public policies that may affect the role of fathers' involvement with their young children:
(1) Much of the recent research on fathers' involvement has often relied upon only mother reports of father behavior. This reliance on mother reports may have led to bias in reports of fathers' involvement.
(2) Given that public policies have moved the role of noncustodial fathers to the forefront of the political agenda in recent years, continued evidence about the impact of these public policies (e.g., child support enforcement, welfare reform) on their lives and the lives of their children is necessary.
(3) Various measures of fathers' involvement—living arrangements (accessibility), material support (responsibility), and daily frequency of involvement (engagement) with their children-should all be examined as they may be affected differently by public policies.
(4) Recent research showing the benefits to children of two-parent households over single-parent households may be mitigated by involved noncustodial biological fathers and/or involved social fathers.

First, recent research examining fathers' involvement has often relied upon only mothers' reports about father behavior. This may have been defensible when nationally representative, longitudinal data were not gathered from fathers themselves. However, much research examining fathers has used only mother reports of their behavior when the father's report was available. The impetus for the first substantive chapter of this dissertation is to examine the discrepancy in mother and father reports of fathers’ involvement and to discuss the bias that using only mother reports might introduce.

Second, although public policies have moved the role of fathers to the forefront of the political agenda in recent years, there is little research to suggest that these policies have resulted in increased involvement by noncustodial fathers in their children's lives. Policies that were designed to increase fathers' involvement may or may not have had their intended effect. And, while the literature examining the role of fathers is growing, the impact of fathers' involvement on their non-marital children remains an understudied issue. Furthermore, the recent passage of PRWORA and increased emphasis on child support enforcement make evaluation of the impact of these policies a timely issue. The recent, longitudinal Fragile Families and Child Wellbeing (FFCW) study data, with information collected from both mothers and fathers about their non-marital child, is particularly appropriate for examining these issues.

Third, various measures of fathers' involvement-living arrangement (accessibility), material support (responsibility), and daily frequency of involvement (engagement) with their children-may be affected by public policies in different ways. In particular, the prior emphasis in the literature has been on fathers’ involvement measured as father-child contact and through formal child support. In addition, a lack of longitudinal data have prevented a thorough examination of fathers’ involvement over time. Finally, a lack of detailed data characterizing the types of relationships unmarried, largely noncustodial, fathers have with their children has also limited study of various forms of fathers' non-monetary involvement in their children's lives.

Fourth, while research has shown the benefits of two parent households over single-headed households (McLanahan and Sandefur, 1994), increases in cohabitation has complicated the evidence and the debate about the impact of unmarried fathers' involvement. The analyses presented in this dissertation will add to the current literature assessing the role of resident and nonresident biological fathers and social fathers (mothers' current partners).

The analyses in this dissertation use the FFCW study. The FFCW study is a large, nationally-representative, longitudinal survey beginning in 1998 that follows a birth cohort of 4,898 children born to married or unmarried, low-income parents in 20 cities in 15 states across the United States. Analyses of four waves of survey databaseline (at birth), 1-year, 3 -year, and 5 -year follow-ups-will be used to trace the dynamics of father-child relationships over time, controlling for characteristics of the father, mother, couple, and focal child. Descriptive and multivariate analyses of the FFCW data will be employed to seven research questions in three substantive chapters.

The first substantive chapter of this dissertation is Chapter 3 and is entitled, "He Said, She Said: Comparing Father and Mother Reports of Father Involvement." This chapter seeks to answer the questions:
(1) What are the patterns of agreement and/or disagreement between mother and father reports of fathers’ involvement with their young child?; and
(2) What demographic and social factors predict the discrepancy between mother and father reports of fathers' frequency of involvement and emotional involvement?

This chapter compares mother and father reports of fathers' involvement, including frequency of involvement and emotional involvement, with their child and examines demographic and social factors that predict the discrepancy in father and mother reports. Using matched pairs of parents from the FFCW data, this chapter finds that father and mother reports of fathers' involvement differ significantly. For example, fathers report spending 17.6 percent more time engaged in 11 activities with their young children than mothers report. How parental disagreement is measured yields starkly different results given the underlying distribution of these data. The chapter also examines the demographic and social factors, such as relationship quality, marital status, and father residency that predict the magnitude of the parental disagreement in the amount of time fathers spend with their children. Finally, the chapter provides insight into what data issues should concern researchers studying fathers’ involvement and contributes to the growing literature on fathers' involvement.

The second substantive chapter of the dissertation is Chapter 4 and is entitled, "Estimating the Impact of Child Support and Welfare Policies on Fathers' Involvement." This chapter seeks to answer the question:
(1) What is the impact of state-level child support enforcement and state-level welfare reform policies versus individual characteristics on father's
involvement-operationalized as accessibility, responsibility, and engagementwith his child over time?

This chapter is a longitudinal analysis using three waves of the FFCW data with annual, state-level policy data on child support enforcement and welfare policies. This chapter examines the impact of policies on fathers’ involvement with their young children over time. Fathers' involvement is operationalized as accessibility, responsibility, and engagement. Using parents that are unmarried at the time of the focal child's birth, this chapter finds that public policies do influence fathers' involvement after controlling for individual social and demographic characteristics. Policies may be operating in conflicting ways to both increase and decrease fathers’ involvement with their children. For example, one type of fathers’ involvement, daily engagement, is positively affected by stronger paternity establishment policies but is negatively affected by stronger child support enforcement collection rates and the family cap policy under welfare reform.

The third substantive chapter of the dissertation is Chapter 5 and is entitled, "Two Dads Are Better Than One: Biological and Social Father Involvement." This chapter seeks to answer the questions:
(1) What are the patterns of frequency of involvement for biological fathers, mothers, and social fathers with their young child, and how do these differ by race and ethnicity?;
(2) What is the role of social fathers in predicting biological fathers', mothers', and overall parental frequency of involvement?; and
(3) What demographic and social factors predict biological fathers', mothers', and overall parental involvement, given the role of social fathers, and do these vary across different racial and ethnic groups?

This chapter examines the extent to which nonresident biological fathers and social fathers are substitutes or complements in a child's life and how biological fathers (resident and nonresident) and social fathers impact the frequency of involvement of the mother and the focal child. Racial and ethnic differences are also explored. This chapter finds that resident social fathers contribute as much or more time to the focal child than resident biological fathers. Several social and demographic factors increase the overall parental frequency of involvement with the focal child, including: having a resident father, having a resident social father, having a native-born father or mother, biological fathers having had their father very involved in raising them, and having a positive relationship between the biological father and mother. Several factors decrease overall parental frequency of involvement with the focal child including, the father having a new partner, the father being currently or ever incarcerated, a mother having other children, and the child's increasing age.

The remainder of the dissertation is organized as follows. The next chapter, Chapter 2, presents a review of the literature relevant to each of the three substantive chapters. Chapters 3 through 5 are the three substantive chapters described above. Each chapter describes the methods used, the descriptive and multivariate findings, and concludes with a discussion and set of limitations that are specific to each chapter. A final concluding chapter, Chapter 6, discusses the import of this dissertation, summarizes the major points and policy recommendations from the substantive chapters, describes overall limitations of the dissertation, and points the way towards key research issues that emerge from this analysis.

## Chapter 2: Literature Review

The literature examining fathers’ involvement with their children can be thought of in four categories: (1) literature describing married fathers' involvement; (2) literature describing divorced nonresident fathers' involvement; (3) literature describing unmarried cohabiting fathers' involvement; and (4) literature describing unmarried nonresident fathers’ involvement. For the purposes of this dissertation, we define "unmarried" as unmarried to the mother of the child in question.

The bulk of the literature concerned with fathers' involvement has focused on nonresident fathers' involvement with their children but emphasized category (2), divorced fathers, with little discussion or distinction made of category (4), unmarried nonresident fathers. In fact, in much of the literature focusing on nonresident fathers, there is no distinction made between whether the father was previously married to the mother or has never been married to her. Thus, while prior literature grouped nonresident (2) and (4) fathers together, the FFCW data permit a comparison of groups (3) and (4)— that is, unmarried cohabiting and unmarried nonresident fathers. In general, the data do not permit an examination of divorced nonresident fathers (2) since the data are collected at birth when couples are either never-married or married. Within the past two decades, the literature discussing fathers who are unmarried to the mother-both cohabiting (3) and nonresident (4)-has grown tremendously. The FFCW study data provide an excellent opportunity to explore the distinction between children of divorce and children born to unmarried parents where the father is cohabiting or nonresident because the children in these fragile families do not begin their lives in intact families.

The focus of this dissertation and this literature review is fathers' involvement along the three major lines of inquiry outlined in the previous chapter. That is, this literature review focuses on:
(1) Research examining the consistency of father and mother reports of father involvement;
(2) Research examining the impact of child support enforcement payments and policies and welfare reform payments and policies on fathers' involvement; and
(3) Literature examining and comparing the role of biological fathers and social fathers, both married and unmarried and resident and nonresident, in young children's lives.

## THE HE SAID, SHE SAID Literature

Coley and Morris (2002) present a thorough explanation of the need for research on the consistency of father and mother reports of father involvement. They point out that the lack of information about fathers’ involvement is caused by limited measures describing fathers' involvement, lack of data about fathers, and concern about mother reports of fathers' involvement. Coley and Morris (2002) cite the dearth of information about father behaviors in national surveys which instead gather basic information about father presence in the household and financial contributions (Coley, 2001; Schaeffer, Seltzer, and Dykema, 1998).

Coley and Morris (2002) attribute the dearth of data on fathers to several sources. Studies of the family often do not include very detailed questions about father's involvement. This may be caused by difficulty in obtaining a response from low-income or nonresident fathers or because the father's role in child-rearing has traditionally not been valued as highly as the mother's role (Schaeffer et al., 1998). Even when fathers are included in surveys response rates from fathers are often very low-of 13 studies of
unmarried fathers, Braver and Bay (1992) found 39.5 percent to be the highest response rate. Coley and Morris’ 2002 study is one of the most comprehensive recent studies, using data from the first wave of Welfare, Children, and Families: A Three City Study, and they have a 45 percent response rate for fathers. The response rate for matched pairs of fathers and mothers in this study is 51.3 percent and 52.7 percent for the two waves of data.

Coley and Morris (2002) also suggest that there is substantial concern about biased reporting and the validity of using mothers' or children's reports of father involvement, particularly for nonresident fathers. In many cases, validity and bias cannot be examined since this requires more than one source of information about fathers. The few studies that do examine both mother and father reports of fathers' behaviors find that, while mother and father reports are correlated, resident parents (typically mothers) consistently underreport nonresident parents’ involvement (typically fathers) (Braver et al., 1991, 1993; Coley and Morris, 2002; Schaeffer et al., 1991; Seltzer and Brandreth, 1994; Smock and Manning, 1997).

Coley and Morris (2002) cite several limitations of past research in this area. First, past studies often have focused on unmarried parents only thereby limiting their generalizability (Braver et al. 1991, 1993; Schaeffer et al., 1991; Seltzer and Brandreth, 1994; Smock and Manning, 1997). Second, studies have used unmatched parental pairs making discrepancies either a function of differences in reporting or nonresponse bias (Seltzer and Brandreth, 1994). Third, prior studies have focused on child support and visitation and have not examined emotional or behavioral father involvement.

Coley and Morris (2002) provide a good first step in remedying these issues by using matched pairs of mothers and fathers from the Welfare, Children, and Families: A Three City Study, about half of whom are living together. Chapter 3 builds upon this and
prior studies comparing father and mother reports of fathers’ involvement in several important ways. First, Chapter 3 uses the FFCW study data. These data have been used extensively in recent years to examine fathers' behavior; however, many of these studies have relied only on mother reports about father behavior and have not used father reports. Thus, it is particularly important to compare father and mother reports of fathers’ involvement using these data. Second, the FFCW data are a national, urban, racially and ethnically diverse, predominantly low-income sample that includes both resident and nonresident fathers. These data also have a large number of father respondents and high response rates for fathers. Third, Chapter 3 is the first analyses to use matched pairs to separately examine the father's residency with his child and the father's living arrangements with the mother. As will be shown below, these two variables often have different effects. Furthermore, the FFCW data provide information on both mother and father reports of relationship quality, which prove to be important predictors of mother and father disagreement.

Lastly, while the analyses in Chapter 3 seeks to replicate and improve upon the findings of prior studies using a different dataset, the measures of fathers' involvement considered are different and, in some cases, more precise. Chapter 3 examines fathers' frequency of involvement in 11 different activities and emotional involvement with his child measured with two different variables and asks fathers and mothers to precisely estimate how many days per week the father engages with his child. Past studies have relied on measures of fathers' involvement with vague answers (e.g., ranging from a little to a lot). The detailed response categories in this analysis make it more likely that the measured discrepancy between father and mother reports are based on differing estimates of frequency of involvement and not on different interpretations of the questions. This chapter will also show that examining fathers' involvement using exact agreement yields
misleading results, at least with the FFCW data, when comparing father-mother disagreement between resident and nonresident fathers and that examining the disagreement in mean number of days per week of fathers' involvement provides a better measure of how father-mother disagreement varies with father residency. It remains unclear whether these conflicting results are unique to the FFCW data or whether this result may also apply to other datasets.

## LITERATURE EXAMINING THE IMPACT OF CHILD SUPPORT ENFORCEMENT AND Welfare Reform Polices on Fathers' Involvement

Empirical research examining the impact of stronger child support enforcement and welfare policies on fathers' involvement is limited. Two studies consider the impact of child support enforcement policies on fathers' involvement-Seltzer, McLanahan, and Hanson (1998) and Huang (2006). An additional study considers the impact of welfare policies on living arrangements (Mincy, Grossbard, and Huang, 2005). Two additional studies consider the impact of both welfare and child support enforcement policies on living arrangements (Carlson, Garfinkel, McLanahan, Mincy, and Primus, 2004; Mincy and Dupree, 2001), although not on other forms of father involvement. The majority of the literature considers the impact of individual-level child support payments and individual characteristics on fathers’ involvement.

Several studies examine characteristics of nonresident fathers that make them more likely to be involved with their children. In general, fathers' involvement tends to decline over time (Lerman and Sorensen, 2000; Furstenberg and Harris, 1993; Lerman 1993; Seltzer, 1991; Mott, 1990). Factors that, on average, increase father-child contact are residential proximity to his child (Cooksey and Craig, 1998; Lerman, 1993; Seltzer, 1991), a positive parental relationship, involvement of the father's family, father's financial resources, father's work experience, father's education, and mother's education
(as a proxy for father's education) (Cooksey and Craig, 1998; Seltzer, 1991; Danziger and Radin, 1990). Factors that decrease father involvement include: geographic distance from the child, a new spouse or partner, parental relationship conflict, and insufficient financial resources (Rangarajan and Gleason, 1998; Furstenberg and Harris, 1993; Seltzer and Bianchi, 1988). It is not possible to determine in these studies whether father residency is causal or simply correlated with greater frequency of involvement because fathers who are less inclined to be involved are less likely to reside with or near their child.

The effect of CSE policies on fathers' involvement is an understudied issue. Using data on child support policies in 1985, Seltzer, McLanahan, and Hanson (1998) find that child support payments positively affects visitation and increases conflict between parents. Huang (2006) finds that child support enforcement laws significantly increase child support payments and visitation. Seltzer, McLanahan, and Hanson (1998) do not examine fathers' involvement for resident fathers and neither of these two studies examine additional measures of fathers’ involvement, such as fathers’ engagement and responsibility. Carlson et al. (2004) use the FFCW study data to estimate the impact of child support enforcement and welfare policies on marriage and separating as compared to cohabitation. They find that generous welfare discourages couples from separating compared to cohabiting and that strong child support enforcement discourages marriage one year after a non-marital birth.

Greene and Moore (2000) present a thorough review of the literature assessing the impact of child support payments on fathers' involvement, although they do not always distinguish between divorced and never married fathers. Several studies show a strong positive correlation between formal child support agreements and father-child contact (Rangarajan and Gleason, 1998; King 1994; Arditti and Keith, 1993; Furstenberg, Nord,

Peterson, and Zill, 1983; Seltzer, Schaeffer, and Charing, 1989). All of these studies examine actual child support payments rather than policies, so they may suffer from the endogeneity problem that those fathers who wish to be involved are also those who are more likely to pay child support. Studies examining the relationship between child support payments and father-child contact only for never married fathers find significantly lower levels of involvement (Cooksey and Craig, 1998; King, 1994; Furstenberg and Harris, 1993; Seltzer, 1991; Seltzer and Bianchi, 1988).

The impact of welfare reform policies on fathers' involvement with their children is also an infrequently studied issue. Mincy and Dupree (2001) use initial FFCW baseline data from seven cities to examine the impact of welfare grant amounts on father involvement. They find that more generous welfare grant amounts and aggressive child support enforcement increase the likelihood that mothers will elect three of the four categories where the father is involved (e.g., father involved, cohabitation, marriage). Mincy, Grossbard, and Huang (2005) confirm the above results using year-1 FFCW data and find that the larger the welfare grant amount in the state where the mother resides, the more likely it is that fathers will have contact with their young children and the more likely that fathers will cohabit with the mothers.

Chapter 4 improves upon the current literature in several notable ways. First, by using state-level policy measures, this chapter avoids possible endogeneity caused by examining the effect of individual-level child support payments on fathers' involvement. Indeed, Seltzer, McLanahan, and Hanson (1998) note that such "analyses assume that the direction of causation is from child support to visitation and influence" (p. 181). They note that this is a dynamic relationship with dual causation and that the simultaneity of the child support variable and the outcome is inherently problematic.

Second, unlike many prior studies in this area, Chapter 4 considers the conditional impact of child support and welfare policies. Given the integrated nature of these two programs and the substitutability of benefits, both child support and welfare policies may be working simultaneously to influence fathers' involvement separately or jointly. Also, because these policies are likely to be correlated, examining one set of policies without the other would likely result in omitted variable bias.

Third, Chapter 4 exploits policy changes over time by linking policy data by the year of interview-interviews for the year-1 FFCW survey occurred during the years 1999-2002, interviews for year-3 FFCW survey occurred during the years 2001-2003, and interviews for the year-5 FFCW survey occurred during the years 2003-2006. The individual-level FFCW survey data are appended with annual, state-level policy data. The original FFCW data were collected in 15 states. However, the appended policy measures are merged according to the mother's state of residence at the time of her interview and the year in which the interview was conducted. The longitudinal analysis includes policy data from 26 states in year one, 31 states in year three, and 32 states in year five.

## Literature Comparing the Role of Biological and Social Fathers

There is a growing literature examining and comparing the role of biological fathers and social fathers, both married and unmarried and resident and nonresident, in young children's lives. A recent study by Berger, Carlson, Bzostek, and Osborne (2007) compares resident (married or cohabiting) biological and social fathers using motherreported data from the year-5 wave of the Fragile Families and Child Wellbeing (FFCW) Study. Berger et al. find that marriage and parenting differ significantly for biological and social fathers, with mothers reporting greater cooperation in parenting from social fathers than biological fathers. Overall, they find no difference between biological and
social fathers in terms of frequency of involvement with the child. However, they find that married social fathers are more engaged with children and have greater parental responsibility than married biological fathers. Maternal trust is greater among cohabiting biological fathers than cohabiting social fathers, but maternal trust doesn't differ between married biological and social fathers. Finally, they find that controlling for background characteristics explains most differences in parenting between married and cohabiting biological fathers. However, for social fathers, marriage is linked with greater investment in the focal child. In general, the Berger et al. study concludes that there is little evidence linking biology to father involvement.

Hofferth and Anderson (2003) use the Panel Study of Income Dynamics (PSID) to examine residential married and unmarried biological and social fathers; they find that marriage increases fathers’ involvement while biological relationship to the child does not. A recent study by Gibson-Davis (2006) using the FFCW data finds that marriage does not increase parental involvement for mothers or fathers, and mothers' parenting is not affected by family structure. Gibson-Davis also finds that mothers report that social fathers are more engaged than married biological fathers, and fathers who re-partner are less engaged with their children.

Using data from Fulton County, Georgia, a recent study by Jayakody and Kalil (2002) examines both male relative social fathers and mothers' romantic partners. They find that children with male relative social fathers have greater school readiness while children whose mothers' have a romantic partner have lower levels of emotional maturity. A recent Hofferth (2006) study examines the impact of residence and biological and nonbiological married and unmarried parental engagement on cognitive achievement and behavioral problems in children ages 3-12. Hofferth (2006) finds that demographic and economic factors impact achievement while behavioral problems are
linked to family structure. Specifically, the study finds that parental frequency of involvement explained some of the differences in behavioral problems across families. Children in stepfamilies achieved at lower levels and had more behavioral problems, but stepchildren achieved at levels comparable to their half-siblings. Finally, in a recent descriptive analysis of five different national datasets, Hofferth, Cabrera, Carlson, Coley, Day, and Schindler (2007), using the Panel Study of Income Dynamics (PSID), find that married biological fathers are more involved with their children than married or cohabiting nonbiological fathers, suggesting that biological relationships matter. Their work also finds that marriage did not significantly increase engagement among nonbiological fathers.

This study differs from past studies examining social fathers in several important ways. First, unlike prior literature, Chapter 5 considers parental involvement from biological mothers, resident and nonresident biological fathers, and resident social fathers. Second, the analysis in Chapter 5 uses more expansive information-examining 13 daily activities rather than merely the presence/absence of a social father-about the involvement of social fathers than is found in other recent studies. Third, Chapter 5 uses mother reports of mother and social father behavior and biological father reports of their own involvement with the focal child. A recent study by Mikelson (2008) finds consistent statistically significant differences between mother and father reports of father involvement that may result in biased findings for those studies that only rely upon mother reports of father involvement.

In Chapter 5, we also explore the involvement of biological and social fathers for different racial and ethnic groups including, non-Hispanic whites, non-Hispanic blacks, and Hispanics. Prior research indicates that biological and social fathers may play a different role for different racial and ethnic groups for several reasons. First, the
percentage of children living with two parents varies substantially by race and ethnicity, and a disproportionate percentage of non-Hispanic black children are living in singleheaded households. In the mid-1990s, 64 percent of Hispanic children and 35 percent of non-Hispanic black children were reportedly living with two parents (Bumpass, Raley, and Sweet, 1995). Other reports indicate that non-Hispanic black children are living with both biological parents only 25 percent of the time (Teachman, Tedrow, and Crowder, 2000).

Second, non-white children are disproportionately likely to be living in families with cohabiting, unmarried parents. The odds of non-Hispanic black and Hispanic children being born into a family with cohabiting, unmarried parents is about 1 in 5 , while the odds for white children is only about 1 in 10 (Bumpass and Lu, 2000). Many of these children may be living with their mother who is cohabiting with either the biological father or the social father. Recent estimates by Manning and Brown (2006) indicate that non-Hispanic black and Hispanic children are disproportionately living in cohabiting families; 44 percent of children in cohabiting households with two biological parents are white, 21 percent are non-Hispanic black, and 31 percent are Hispanic.

Third, recent research suggests that due to differences in cultural traditions, social fathers may play a more important role for non-Hispanic black families (Billingsley, 1992). Our analysis also shows non-Hispanic black families (14 percent) and Hispanic families (8 percent) are more likely to have a social father than non-Hispanic white families (6 percent). Given racial and ethnic differences in parents' living arrangements and the presence of a social father, we analyze the extent to which the role of mothers' involvement, biological fathers' involvement, and all parents' involvement varies by race and ethnicity by predicting involvement separately for different racial and ethnic groups.

## Chapter 3: He Said, She Said: Comparing Father and Mother Reports of Father Involvement

Policies such as child support enforcement, marriage promotion, and welfare reform all seek to increase the involvement of fathers in their children's lives. As rates of non-marital births and cohabitation have risen in recent years, a great deal of research has also focused on this issue. Despite increasing interest in fathers' involvement, there is a dearth of information about married and unmarried fathers’ involvement with their children for several reasons.

First, there are few longitudinal, national-level studies that have gathered data about fathers' involvement. Second, data collected on fathers often entails only basic financial information about child support and the presence or absence of the father in the household. Third, recent literature shows that mother reports of father involvement tends to underestimate the fathers' role (relative to the fathers' estimates), and, in many cases, the validity of mother reports cannot be confirmed (Braver, Wolchik, Sandler, Fogas, and Zvetina, 1991; Braver, Wolchik, Sandler, Sheets, Fogas, and Bay, 1993; Coley and Morris, 2002; Schaeffer, Seltzer, and Klawitter, 1991; Seltzer and Brandreth, 1994; Smock and Manning, 1997). Fourth, despite their uncertain validity, concerns about father response rates have often led researchers to focus solely on mother reports about fathers’ behavior with their children.

This chapter examines the importance of using father-reported measures of father involvement in two ways. First, it compares father and mother responses to questions about fathers' involvement to describe the magnitude of the father-mother discrepancy in their reports of father's involvement. In doing so, it illustrates that the way in which disagreement is measured (i.e., measuring the resident/nonresident father-mother
discrepancy versus exact agreement between matched pairs) yields starkly different results given the underlying distribution of the data. Second, this chapter examines the demographic and social factors that predict greater or lesser discrepancy between father's and mother's reports of father involvement. Building on prior research in this area, this chapter provides a methodological contribution in thinking about what data issues should concern researchers in future analyses examining fathers' involvement, and, substantively, this chapter contributes to the growing literature about fathers' involvement with their young children.

This chapter answers the following two research questions:
(1) What are the patterns of agreement and/or disagreement between mother and father reports of fathers' involvement with their young child?
(2) What demographic and social factors predict the discrepancy between mother and father reports of fathers' frequency of involvement and emotional involvement?

Specific hypotheses about the differences between resident and nonresident fathers' involvement and which demographic and social factors predict discrepancy between fathers and mothers are premature, given the small amount of literature comparing father and mother reports of fathers' involvement. That said, the general expectation is that, on average, mothers report lower levels of fathers' involvement than do fathers. This chapter also expects to find that fathers and mothers living together are more likely to agree about father's involvement with his child.

## DATA AND METHOD

This chapter uses data from the FFCW Study-a large-scale, nationallyrepresentative, longitudinal survey. The study follows a birth cohort of 4,898 children living in urban areas with over 200,000 people. Baseline interviews (at the time of the child’s birth) were conducted with 4,898 mothers and 3,830 fathers in 20 United States
cities between February 1998 and November 2000. Follow up interviews occurred at one year and three years after baseline. This chapter uses mother and father interview data from the 3-year survey.

Baseline data of 4,898 births (3,712 non-marital, 1,186 marital) were collected from 75 hospitals at the time of the child's birth, and both mothers and fathers (when possible) were surveyed. Hospitals were selected within each city to be representative of non-marital births within that city, and married and unmarried births were sampled within hospitals until preset quotas were reached based on the percentage of non-marital births in that city in 1996 and 1997. Births to unmarried parents are substantially over-sampled and are nationally-representative when weighted; however, the sample is not nationallyrepresentative of marital births (Reichman, Teitler, Garfinkel, and McLanahan, 2001).

Eighty-seven percent of eligible unmarried mothers and 82 percent of eligible married mothers completed baseline interviews (Bendheim-Thoman Center for Research on Child Wellbeing, 2005). Fathers were only eligible if the mother of his baby completed a baseline interview. Seventy-five percent of eligible unmarried fathers and 88 percent of eligible married fathers were interviewed at baseline.

The 3 -year follow up sample includes 4,231 mothers and 3,299 fathers. This chapter examines 2,058 matched pairs of fathers and mothers from this 3 -year sample. Therefore, the response rate for matched pairs in this chapter is 48.6 percent for mothers and 62.4 percent for fathers. To be part of the matched pairs sample, both parents must have answered questions about the father's frequency of involvement and emotional involvement in the 3-year survey and must not have missing data for the independent variables included in the multivariate analyses. In general, the matched pairs are those people that are most easily tracked down and followed over time.

The data are exceptionally rich in comparison to other data which have been used to study fathers. First, the data tie the father and mother to a focal biological child, thereby allowing analyses of child outcomes and the mother-father relationship, in addition to the characteristics of the father and the mother. Second, the data are both national and longitudinal with relatively low rates of missing fathers and attrition over time. Third, the data are racially and ethnically diverse.

Father involvement. For this chapter, father involvement includes measures of frequency of involvement and emotional involvement. The measures included in this chapter are limited to parallel questions asked of both the mother and the father about the focal child. The questions from the FFCW that ask fathers and mothers about how many days per week father spends with his child engaged in various activities are similar to measures in the Early Head Start Study's Fatherhood Component parental survey conducted when the child was 3 years old.

When asked about frequency of involvement and emotional involvement, mothers and fathers were asked to assess involvement at the time of the interview, not necessarily referencing the same point in time. The lack of synchronization of the parental responses is particularly detrimental when children are in the infant-toddler stage of development. For this reason, the analyses in this chapter are limited to the 3-year FFCW data, and parents with interviews more than six months apart are omitted from the analyses. For frequency of involvement, 69 cases ( 3.6 percent) were omitted, and, for emotional involvement, 78 cases ( 3.7 percent) were omitted due to a greater than six month difference between father and mother interview date. For the 2,058 remaining cases, the resulting average time between mother and father interviews was about 28 days with a standard deviation of 39 days.

Frequency of involvement is operationalized using questions about 11 activities that fathers may engage in with his biological child. All fathers and mothers were asked—How many days in a typical week does [father] (1) sing songs or nursery rhymes with [child]; (2) let [child] help with simple chores; (3) play imaginary games with [child]; (4) read stories to [child]; (5) tell stories to [child]; (6) play inside with toys such as blocks or legos with [child]; (7) tell [child] you appreciate something he/she did; (8) take [child] to visit relatives; (9) go to a restaurant with [child]; (10) assist [child] with eating; and (11) put [child] to bed? The scale reliability coefficient, also known as Cronbach's alpha, for these items is .83 for father reports and .88 for mother reports. Emotional involvement was operationalized using two questions-How many days in a typical week does [father] (1) hug or show physical affection to [child]; and (2) tell [child] that he loves him/her? The scale reliability coefficient for these items is .95 for fathers and .97 for mothers.

Father, Mother, Couple, and Child Characteristics. Fathers and mothers each reported on their own demographic characteristics in the 3-year data. For fathers these characteristics included age, race/ethnicity, nativity, and education. Race/ethnicity was coded as four dummy variables for non-Hispanic African American, Mexican American, Other Hispanic, and non-Hispanic other with non-Hispanic white omitted. Education was dichotomized as a high school education or greater and less than a high school education. Mothers' reports of whether father had ever been incarcerated were used since fathers were not asked about their own incarceration. Father residency with the child was dichotomized as living with the child all or most of the time or not and was reported by the father.

Mother characteristics included education, nativity, and whether the mother had received financial help or money from anyone other than the father since the child was
born. Mother's age and race/ethnicity were excluded from the multivariate analyses because of collinearity with father's race/ethnicity and age.

Couple characteristics three years after the child's birth included relationship quality as reported by both the father and the mother, marital status, and the number of other biological children father and mother have with one another and with other partners. Relationship quality was coded as a dummy variable taking the value one if the respondent answered excellent, very good, or good and zero if the answer was fair or poor. Marital status as reported by the father was coded as two dummy variables for married and cohabiting with separated/divorced/friends/ no relationship as the omitted category. Mother's report of the number of children with this father is dichotomized as zero for only one child (the focal child) and one for $2+$ children (the focal child plus additional children). Mother's report of whether she has other children with another father is coded one for yes and zero for no. Father's report of whether he has other children with another mother also coded as one for yes and zero for no.

Child characteristics included the child's age in months at the time of the mother's 3-year interview. To assess the impact of child's age at the time of the father's 3-year survey and to assess the impact of the time between the father and mother interviews, the age difference of the child in months at the time of the father's 3-year interview was also included.

Table 3.1 presents descriptive statistics for the independent variables used in this chapter, overall and by marital status. Slightly over half ( 53 percent) of the sample were married, 34 percent were cohabiting, and 13 percent were separated, divorced, friends, or had no relationship three years after the birth of their child. Seventy percent of fathers and 72 percent of mothers had a high school education or greater, and father's education ranged from a low of 58 percent for cohabiting fathers to a high of 79 percent for married
fathers. One-fourth ( 25 percent) of fathers had ever been incarcerated, as reported by the mothers. The sample is racially and ethnically diverse with 27 percent non-Hispanic whites, 40 percent non-Hispanic African Americans, 17 percent Mexican Americans, 12 percent other Hispanics, and 4 percent non-Hispanic others. Nearly nine out of ten fathers (88 percent) lived with their child all or most of the time three years after the child's birth, although only 28 percent of fathers not married or cohabiting lived with their children. In general, fathers and mothers both reported having an excellent, very good, or good relationship with the other parent. Parents who were separated, divorced, friends, or had no relationship were much less likely to rate their relationship as excellent/very good/or good with 69 percent and 63 percent of fathers and mothers, respectively. Nearly two-thirds (63 percent) of mothers reported having more children than the focal child with this father. About 29 percent of mothers and 27 percent of fathers reported having children with another partner.

The chapter answers the first research question, (1) What are the patterns of agreement and/or disagreement between mother and father reports of fathers' involvement with their young child?, using descriptive analyses. The chapter answers the second research question, (2) What demographic and social factors predict disagreement or discrepancy between mother and father reports of fathers' frequency of involvement and emotional involvement?, using ordinary least squares (OLS) regression.

The dependent variable (i.e., father-mother discrepancy) was created by subtracting mother-reports of the father's frequency of involvement from father-reports of his involvement for the 11 activities. Each frequency of involvement discrepancy ranges from -7 to +7 . A value of -7 would be obtained, for example, if the father said he sings songs zero days per week while the mother said he sings songs seven days per week. A value of zero indicates agreement between a father's and mother's estimation of
frequency of involvement. The average of these 11 discrepancies is taken to create a composite frequency of involvement variable that ranges from -7 to +7 . Because, on average, fathers report higher frequency of involvement than do mothers, the values for the continuous dependent variable are more likely to be positive than negative. The dependent variable (i.e., father-mother discrepancy) for emotional involvement was created similarly using the father and mother reports of father's frequency hugging or showing physical affection with his child and frequency of telling his child that he loves him/her at age three. The value of the emotional involvement dependent variable ranges from -7 to +7 .

## Results

Table 3.2 presents the descriptive analyses for frequency of involvement. Panel A shows both the father and mother reports of the father's frequency of involvement as well as the discrepancy between the parental reports. Panels B and C present the frequency of involvement results for resident and nonresident fathers using (in Panel B) the mean discrepancy between mothers and resident fathers and mothers and nonresident fathers; and (in Panel C) exact agreement between mothers and resident fathers and mothers and nonresident fathers. Note that these two different methods of displaying the data yield very different pictures of how father residency affects agreement.

For all 11 of the fathers' frequency of involvement measures, fathers report greater frequency of involvement with their children than mothers when the child is three years old. The overall average discrepancy between father and mother reported frequency of involvement was 0.6 days per week. The discrepancy for each of the six activities ranged from a low of 0.2 of a day difference to a high of 1.1 days difference (Table 3.2, Panel A).

Telling the child you appreciate something he/she did, playing inside with toys, and putting the child to bed were cited by fathers and mothers as the activities that fathers were most likely to be involved in. Fathers and mothers reported that fathers tell a child he appreciates something the child did an average of 5.8 days and 5.5 days per week, respectively, when the child is three. Playing inside with toys with their child averaged 5.0 days and 4.3 days per week, while putting the child to bed averaged 5.0 and 4.0 days per week, respectively, for father and mother reports. Playing inside with toys and putting the child to bed were also the activities with some of the highest levels of discrepancy between father and mother reports.

The least frequent activities fathers engaged in with their children included going to a restaurant with the child (1.8 and 1.6 days per week for fathers and mothers, respectively), taking the child to visit relatives (2.6 and 2.1 days per week for fathers and mothers, respectively), and assisting child with eating (3.4 and 2.3 days per week for fathers and mothers, respectively).

While all the father-mother discrepancies are statistically significant at the . 01 level, the largest discrepancies between father and mother reports of fathers' involvement was 1.1 days for assisting child with eating and 1.0 day for putting the child to bed. With a discrepancy of 0.2 days, singing songs and going to a restaurant with the child had the smallest discrepancies between father and mother reports.

The descriptive analysis next compares the father-mother reported discrepancy in fathers' involvement between resident and nonresident fathers (Table 3.2, Panel B). Somewhat surprisingly, Panel B shows that, overall, resident fathers have higher levels of disagreement with mothers than do nonresident fathers in year three, although this difference is not statistically significant for all 11 activities. Two activities show statistically significant differences between resident father-mother disagreement and
nonresident father-mother disagreement—assisting child with eating and putting child to bed. These activities indicate a difference-in-difference of approximately two-thirds (0.6 and 0.7 ) of a day, again with a greater discrepancy among resident fathers and mothers than nonresident fathers and mothers.

The difference between resident fathers' and nonresident fathers’ agreement with the mother is also examined in Table 3.2, Panel C using exact agreement. Exact agreement is measured using the days per week (i.e., $7,6,5,4,3,2,1$, and 0 days per week). A father-mother pair must have an identical response in order to be considered in exact agreement. As Table 3.2 shows, in many cases, focusing on exact agreement may be misleading. A stark example is comparing the results for putting the child to bed. Panel C indicates that resident father-mother pairs have exact agreement 12.7 percent percentage points higher than nonresident father-mother pairs, a statistically significant finding. Panel B shows the opposite result, however, since resident father-mother pairs have greater disagreement by 0.7 days than nonresident father-mother pairs, also a statistically significant result. Additional examples are playing inside with toys, telling child you appreciate something he/she did, taking a child to visit relatives, and going to a restaurant-all of which show statistically significant differences in Panel C but do not show statistically significant differences in Panel B. The disparate results in Panel B and Panel C suggest that the resident father-mother discrepancy distribution has wider tails relative to the nonresident father-mother distribution. Using exact agreement to assess the discrepancy between father and mother reports of fathers' involvement, at least for the FFCW data, sometimes leads to misleading results because exact agreement focuses only on the portion of the father-mother discrepancy distribution that is at zero.

Table 3.3 presents descriptive results for father and mother reports of fathers’ emotional involvement with their children. While the father-mother reported discrepancy
in fathers' emotional involvement is relatively small ( 0.2 days per week), it is statistically significant (Table 3.3, Panel A). Both parents report high levels of emotional involvement by fathers. Specifically, fathers report hugging or showing physical affection and telling the child that they love them 6.6 days per week, on average, while mothers report 6.4 days per week, on average, for fathers.

Nonresident father-mother pairs report levels of disagreement regarding fathers' emotional involvement by 0.5 days relative to resident father-mother pairs (Table 3.3, Panel B). While the greater disagreement between nonresident fathers and mothers than between resident fathers and mothers is intuitive, it is in the opposite direction from the frequency of involvement results discussed previously. These results may indicate that mothers equate emotional involvement with fathers’ residency. Alternatively, these large discrepancies by residency may indicate that mothers do not really know as much about what the father does when they do not live together since she does not see hugging or showing physical affection to the child or a father telling his child that he loves him/her. Unlike the results for frequency of involvement, exact agreement for emotional involvement shows a similar pattern in Panel C as does mean father-mother discrepancy in Panel B.

Tables 3.4 and 3.5 show the OLS regression results predicting the discrepancy between father and mother reports of frequency of involvement and emotional involvement. The predictor variables include father, mother, couple, and child characteristics. Entering the variables stepwise in the order shown generally did not result in significant changes in the coefficients of prior variables; therefore, the final model is the only one shown. Tables 3.4 and 3.5 show the unstandardized B, the standard error of the $B$, and the standardized $\beta$.

Table 3.4 shows that father residency, relationship quality, marital status, age difference of child at the time of the father's interview, and whether the mother received financial help from anyone other than the father all significantly predict differences in father and mother reports of frequency of involvement. A positive (negative) coefficient on an independent variable indicates an increase (decrease) in the discrepancy since, on average, fathers report higher levels of frequency of involvement than mothers.

Mothers saying they have a good or better relationship with the father have, on average, an estimate of father's frequency of involvement that is 1.25 days closer to the father's estimate than do mothers who say the relationship is fair or poor. On the other hand, fathers saying they have an excellent/very good/good relationship agree less with mothers' assessment of frequency of involvement (by one-third of a day) than do fathers who say their relationship is fair or poor. Note that the coefficient on fathers' estimate of relationship quality is smaller in magnitude than the mothers' coefficient. This may indicate that there is both a direct and an indirect relationship between relationship quality and the discrepancy in reported fathers' involvement. First, if the relationship between the father and mother is actually good, then this results in a decrease in the discrepancy. If true, this effect is operating through the mother's report. Second, it is also possible that the relationship quality variable is tapping into the reporter's optimism about the father-child relationship. If true, this effect is operating through both the mother's and father's reports about their frequency of involvement with the child. Since fathers' reported frequency of involvement tends to exceed mothers', mothers' optimism decreases the discrepancy while fathers' optimism increases it. Overall, the net effect of relationship quality is probably to reduce the discrepancy since the mothers' coefficient is nearly four times greater in magnitude.

Father residency with the child, age difference of child at the time of the father's interview, and whether the mother received financial assistance from anyone other than the father all predict an increase in the discrepancy between father and mother reports of frequency of involvement. Marital status, on the other hand, predicts a decrease in the discrepancy between father and mother reports. If a child lives with the father all or most of the time, then the father-mother discrepancy in the frequency of involvement estimate is about 0.7 days greater than for those children who do not live with their father. As mentioned above, this may be because a nonresident father has set visitation days which gives the mother a more accurate accounting of his frequency of involvement with his child than she has if the child lives primarily with the father (since we have controlled for residency with the mother through the married and cohabiting variables, this variable captures the effect of the children living with the father and not the mother). A mother's receiving financial help from anyone other than the father may indicate tension in the relationship with the father or may be indicative of a father who is less closely tied to the mother and child, making his time involvement harder for the mother to accurately estimate (although, notice this effect is not large in magnitude, increasing the discrepancy only by one-quarter of a day). The age difference of the child at the time of the father's interview is significant, although very small, and is a proxy for time between the mother's and father's interview. Not surprisingly, for example, a 5.5 month increase in the age of the child (or the time between interviews) increases the discrepancy between mother and father reports of frequency of involvement by one-third of a day. Fathers and mothers who are estranged would tend to have interview dates that are further apart since, generally speaking, the mother is used to locate the father in this dataset.

While marital status would appear to predict an increase in agreement between father and mother reports of frequency of involvement (by almost half a day), notice that
the marital status coefficient is smaller and of the opposite sign as father residency with child. Given that nearly all fathers that are married to the mother are also residing with the child, this means that a married couple living with their child does not have a smaller discrepancy in the father's versus the mother's estimate of the father's frequency of involvement compared to a mother-child family where the father lives separately.

The results for fathers' emotional involvement with his child are similar to the results for frequency of involvement. Table 3.5 shows that relationship quality, father residency, and marital status and cohabiting are all significant predictors of the discrepancy between father and mother reports of emotional involvement. However, whether the mother received financial help from anyone other than the father were not found to be significant predictors of the differences in father and mother reports of emotional involvement. The sign of the coefficients for relationship quality and marital status are the same as they were for frequency of involvement. It is notable that the coefficients on the marital status variables exceed the coefficients on the father residency with child variable. Thus, at least for emotional involvement, Table 3.5 shows the expected result. That is, married couples living with their children have a smaller fathermother discrepancy than do mother-child families where the father lives separately.

## DISCUSSION

The results presented in this chapter contribute to the growing father involvement literature by illustrating how father and mother discrepancies in reporting fathers' involvement with their children may affect the results of studies of father involvement. This chapter uncovered many demographic and social factors that predict father-mother discrepancy in reporting on fathers' involvement. These factors should all be considered when comparing father and mother reports of fathers' involvement.

The findings are consistent with past research indicating that, in general, mother reports of fathers' involvement are lower than father reports (Braver et al., 1991, 1993; Coley and Morris, 2002; Schaeffer et al., 1991; Seltzer and Brandreth, 1994; Smock and Manning, 1997). Specifically, although they measure father-mother conflict differently (focusing on conflicting parenting styles rather than relationship quality), Coley and Morris’ (2002) finding that father-mother conflict predicts greater discrepancy in estimates of fathers' involvement is consistent with the results in this chapter. Both this chapter and Coley and Morris (2002) find that the time between the mother and father interview predict a greater discrepancy in reports of fathers' involvement.

Our results are inconsistent with Coley and Morris (2002) in several notable ways. Before describing the differences, it is worth noting that their measure of father's involvement uses six items asked of both mothers and fathers, including, father's responsibility for raising the child, whether father's involvement makes things easier for the mother, father's financial and material support, hours per week father takes care of the child, how often father sees/visits child, and how often child sees/visits father's family.

The descriptive results in Table 3.2 show that the difference in mean frequency of involvement for resident father-mother and nonresident father-mother pairs (Panel B) and comparing exact agreement in resident father-mother and nonresident father-mother pairs (Panel C) produced opposite results. While Panel B showed that resident father-mother pairs have a greater discrepancy in reporting on father involvement than nonresident father-mother pairs, Panel C, on the other hand, misleadingly shows that resident fathermother pairs have greater agreement than nonresident father-mother pairs.

It should be noted that Coley and Morris’ (2002) finding of greater agreement for coresiding pairs (using exact agreement) is inconsistent with our Table 3.2, Panel B
(which uses mean discrepancy) and is consistent with our Table 3.2, Panel C (which uses exact agreement). It is unclear whether the underlying data distribution in Coley and Morris (2002) is similar to the FFCW data distribution (they do not present data on mean levels of disagreement), therefore, caution should be exercised when comparing these results.

The results for the multivariate analysis are also somewhat inconsistent with Coley and Morris (2002). In particular, they do not find any significant effect of father residency in their multivariate analysis; however, our chapter finds that father residency increases rather than decreases the discrepancy between father-mother reports of fathers' frequency of involvement.

Further study examining agreement between resident and nonresident fathers and mothers is needed to shed light on these disparate findings. Because these residency findings were only apparent when examining mean discrepancy levels, as opposed to exact agreement percentages, future analyses should use data that can be examined using methods beyond exact agreement in order to replicate this finding. In fact, this chapter suggests that researchers should be wary of using only exact agreement to compare father and mother reports of fathers' involvement. Since exact agreement relies only on that portion of the distribution where father-mother concordance is zero, it does not account for the rest of the distribution. At least for the FFCW data, this limitation can give a distorted picture since not all disagreement is identical in magnitude.

Methodologically, these analyses indicate that researchers should be wary in future analyses of relying solely on mother reports of fathers' involvement with their children. This chapter confirms Coley and Morris' (2002) conclusion that caution should be used when relying on mother reports of fathers' involvement. To accurately portray the role of fathers in their children's lives, researchers may not want to rely solely on
mother reports or may want to confirm parental reports against a third source of information (e.g., court documents, child reports), when possible. At the very least, acknowledgement of the source of the fathers' involvement information should be carefully documented and the appropriate caveats included about potential sources of bias and validity.

There are several limitations of this chapter that should be noted. First, the FFCW data are an urban sample, predominantly low-income, and the focal child ranges in age (the average age is 36 months ranging from a minimum of 31 months to a maximum of 48 months in the sample). It is unclear if these results would generalize to non-urban populations or populations with older children. Second, fathers’ involvement measures are limited to 11 frequency of involvement measures and two emotional involvement measures since these are the measures available three years after the child's birth. Third, parental responses are not necessarily referencing the same point in time, which may impact the interpretation of the results. However, the average level of father involvement is not likely to differ significantly based on a few months difference in age when a child is three years old. The analyses were limited to the 3-year data for this reason. Finally, there is not a source of unbiased, objective data that can be compared to father or mother reports of fathers' involvement. Therefore, one cannot definitively determine whether mothers underestimate fathers’ involvement or whether fathers overestimate their own involvement.

## Chapter 4: Estimating the Impact of Child Support and Welfare Policies on Father Involvement

In recent years, policymakers in the United States have sought to increase the role of fathers, particularly unwed fathers, in the lives of their children. Strengthening child support enforcement, increasing paternity establishment, and marriage promotion policies all seek to increase fathers’ involvement. Concurrent policy changes under welfare reform have resulted in reduced caseloads, time limited benefits, and increased work requirements for welfare recipients thereby inducing mothers, and presumably fathers, to meet the economic needs of their children. Despite sweeping policy changes in the past decade, little empirical evidence exists to measure whether and how these policy changes have altered fathers' involvement with their children. This chapter attempts to fill that gap by disentangling the effects of state-level child support enforcement policies and welfare policies on fathers' involvement, controlling for fathers' individual characteristics. In particular, this chapter finds that some public policies are having their intended effect of increasing fathers' involvement. However, other policies are decreasing fathers’ involvement. Furthermore, policies that increase one aspect of fathers' involvement (i.e., financial responsibility) may also decrease other aspects of fathers' involvement (i.e., accessibility and engagement).

Begun in 1975, federal Child Support Enforcement (CSE) provided states with federal matching funds to establish paternity and provide monetary support to custodial parents. Initially designed to benefit single parents and to off-set Aid to Families with Dependent Children (AFDC) costs, in 1980, CSE was broadened to all families regardless of family income or welfare status. Between 1979 and 1996, paternity establishment-a requirement for formal child support-increased from 19 to 52 percent
of non-marital births (McLanahan and Carlson, 2002). Between 1978 and 2006, child support collections increased from $\$ 3.2$ billion (U.S. House of Representatives, Committee on Ways and Means, 2004) to almost $\$ 24$ billion in 2006 dollars (Office of Child Support Enforcement (OCSE), 2007). The majority of this increase was due to more CSE cases rather than higher payments per case-from 1978 to 2001 the proportion of child support collected through the CSE program increased from 23 to 87 percent (U.S. House of Representatives, Committee on Ways and Means, 2004). By 2006, there were 15.8 million child support cases (OCSE, 2007); this represents about one-third of the 48.3 million children enrolled in K-12 public schools (National Center for Education Statistics (2005) as cited in Pirog and Ziol-Guest, 2006). Given declining welfare caseloads in recent years, 15 percent of the total CSE caseload consists of current assistance cases, ${ }^{1}$ and 46 percent are former assistance cases. The remaining 39 percent are families who never received public assistance (OCSE, 2007).

Concurrent to changes in federal CSE, the passage of welfare reform in 1996 eliminated the federally-funded welfare program AFDC and replaced it with the Temporary Assistance for Needy Families (TANF) block grants to states. The devolution of authority from the federal government to the states under welfare reform gives states the flexibility to determine benefit levels and benefit time limits within broad guidelines defined by the federal government. Under welfare reform, states must limit TANF benefits to 60 months in one's lifetime. However, many states opted for shorter time limits. Under welfare reform, TANF benefits have been reduced in real terms in most states. The erosion of TANF benefits, combined with time limits and increased work requirements, have resulted in an overall reduction in income from welfare and increased labor force participation among former welfare recipients.

[^0]The CSE and TANF programs are integrally related. As a condition of receiving welfare, custodial parents must cooperate in establishing paternity and relinquish their right to child support to the government (Pirog and Ziol-Guest, 2006). The federal government may opt to retain any child support received by custodial parents that are receiving welfare. Under welfare reform, states can pass child support payments on to families on welfare; however, states must also pay the federal government for half of any child support payments received. Therefore, child support payments are statedetermined. However, in most states, families receiving cash welfare do not also receive child support payments. ${ }^{2}$ With the decline of cash welfare caseloads, more families are eligible to receive child support payments and will seek to do so.

Despite the substitutability of child support and welfare payments, the conditional impact of these two programs on fathers' involvement is an understudied issue in prior literature. By exploiting state-level differences in welfare and child support enforcement policies, this chapter allows for the possibility that these policies may exert both a direct effect on fathers' behavior and an indirect effect either through altering father's decisions about marriage and cohabitation or by affecting mother's incentives to marry or cohabit with the father.

The chapter is organized as follows. The next section reviews the theoretical framework regarding the effect of child support enforcement and welfare policies on fathers' involvement. The third section explains the data and methods and variables employed. The fourth section presents the empirical results, and the fifth section summarizes the results and discusses policy implications.

[^1]
## THEORETICAL FRAMEWORK

This chapter adapts Lamb's (2000) three-pronged model of father involvement as originally conceptualized by Lamb, Pleck, Charnov, and Levine $(1985,1987)$ and described in Cabrera, Tamis-LeMonda, Lamb, and Boller (1999). Lamb (2000) distinguishes three types of father involvement-engagement (i.e., one-on-one interaction), accessibility (i.e., a father's presence or accessibility to the child), and responsibility (e.g., whether a father arranges for resources to be available to the child). In this chapter, engagement is operationalized as fathers’ frequency of involvement in eight to thirteen age-appropriate activities. Accessibility is operationalized using a categorical variable measuring whether a father is married to, cohabiting with, or separate from the mother. Finally, responsibility is operationalized as the financial support, both formal and informal, that the father provides. This is an adaptation of Lamb et al.'s (1985, 1987) definition of responsibility, which largely captures organizing and planning a child's life. This adaptation permits examination of responsibility for both nonresident fathers, who may be unlikely to organize and plan his child's life, and resident fathers.

The expected effect of stronger child support enforcement on fathers’ financial responsibility is to increase formal support payments from fathers and to reduce the number of fathers providing either informal financial support or no support. The expected effect of less generous welfare benefits-stricter welfare time limits, work requirements, and reductions in benefits-is increased child support payments as custodial parents may be more likely to actively seek formal and informal support from the noncustodial parents. Noncustodial parents may also be more likely to make support payments if they see these payments going to their children rather than to the state.

The theoretical effect of stronger child support enforcement policies on the frequency of father-child contact is ambiguous. We expect that fathers' engagement with
their children may be negatively associated with stronger child support enforcement policies to the extent that being forced to contribute financially may embitter a father's relationship with the mother who may then restrict contact with the child. However, a father who is forced to contribute financially may also seek custodial or visitation rights, resulting in increased father-child contact.

The theoretical effect of child support enforcement and welfare policies on accessibility-operationalized as marriage, cohabitation, or staying separate-is also potentially ambiguous. Welfare reform promoted two-parent families and included provisions aimed at reducing non-marital fertility. At the same time, stronger child support enforcement has given mothers rights to father's financial support without the obligation to marry or cohabit. On the other hand, as time limits and work requirements cause mothers to leave welfare, they may elect to cohabit and/or marry the baby's father (under TANF, it is much more difficult to qualify for benefits if one is married or cohabiting).

## Data and Method

This chapter uses three waves of data from the FFCW study, a large-scale, nationally-representative, longitudinal survey. The study follows a birth cohort of children living in urban areas with over 200,000 people. Baseline interviews (at the time of the child's birth) were conducted with 4,898 mothers and 3,830 fathers in 20 United States cities (15 states) between February 1998 and November 2000. Hospitals were selected within each city to be representative of non-marital births within that city, and married and unmarried births were sampled within hospitals until preset quotas were reached based on the percentage of non-marital births in that city in 1996 and 1997 (Reichman, Teitler, Garfinkel, and McLanahan, 2001). Follow up interviews occurred at one year, three years, and five years after baseline.

The sample was stratified according to state and local characteristics, including the strength of the child support enforcement system, welfare generosity, and the strength of the local labor market. In this chapter, we append the following annual, state-level policy variables to the Fragile Families individual-level data: child support enforcement collections, paternity establishment, family cap, ${ }^{3}$ TANF lifetime time limit, and maximum TANF grant for a family of three. Detail about the sources of these variables, their measurement, and how they are linked to the FFCW data appears below.

For the demographic variables used in the analysis, mother reports are used for mother's demographics and for selected additional variables, as noted in the tables. Whenever possible, we rely on father reports of father behavior. Recent research using the FFCW data has shown that there is a statistically significant gap in mother and father reports of fathers' involvement and that, when available, father reports should be used (Mikelson, 2008). Mikelson (2008) argues that, given the gap in mother and father reports, fathers are more likely to know about their activities with their child, particularly if they are nonresident fathers seeing their children during noncustodial visits.

Because both fathers' and mothers' data are used, the analytic sample includes mother-father pairs. This chapter limits the analysis to parents that were unmarried at the time of the focal child's birth as a way of isolating the effect of public policies on parents' decisions to marry following a non-marital birth. The analytic sample includes all mother-father pairs for which cases are not missing for the independent and dependent variables. The analytic sample for the point-in-time material support analysis is 1,512 (Table 4.4). However, for the living arrangements and frequency of father's involvement outcomes, we exploit the longitudinal nature of the data to effectively increase the sample

[^2]size to 4,752 cases for living arrangements (Table 4.3) and 4,454 cases for the frequency of father's involvement (Table 4.5).

The data are exceptionally rich in comparison to other data which have been used to study fathers. First, the data tie the father and mother to a focal biological child, thereby allowing analyses of mother and child characteristics, in addition to the characteristics of the father. Second, the data are both national and longitudinal with relatively low rates of missing fathers and attrition over time. Third, the data are racially and ethnically diverse.

## VARIABLES

Father Involvement. The three key dependent variables in the analysis include three measures of fathers' involvement-accessibility, engagement, and responsibility. Father's accessibility and engagement are measured using father reports in the year-1, year-3, and year-5 FFCW survey. However, data measuring father's responsibility are available only in the year- 1 FFCW survey.

Father's accessibility to his child was operationalized using the living arrangements of the father in relation to the focal child. Recall that the analysis is restricted to all parents that are unmarried at the time of the child's birth and living arrangements are examined one, three, and five years after the focal child's birth. Living arrangements are measured as (1) married, (2) cohabiting, and (3) separate, a category that includes parents that are separated, divorced, friends, or that have no relationship (the omitted category). By examining living arrangements, we estimate fathers' presence in the household and access to his child. Living arrangements is also a potentially important mediating variable through which individual behavior and the policy variables operate. That is, both individual behavior and policies affect marriage decisions and this decision, in turn, may affect fathers' involvement.

The chapter next examines fathers' material support (i.e., responsibility) and fathers' frequency of involvement (i.e., engagement) as the dependent variables. Father's responsibility to his child was operationalized by estimating whether the father provided financial support for his child. In the FFCW survey, fathers residing with their child all or most of the time (includes married, cohabiting, and fathers with sole custody) are assumed to be providing financial support to their child and are not asked about whether they provide financial support. Fathers who do not have sole custody and who are not married or cohabiting are asked whether they have a formal child support agreement, an informal agreement, or no agreement to provide financial support. Responsibility is coded in four categories: resident fathers living with the focal child all or most of the time; nonresident fathers with a formal support agreement; nonresident fathers with an informal agreement; and nonresident fathers with no agreement to provide support (the omitted category).

Fathers' engagement with his child is operationalized as frequency of involvement. Frequency of involvement is a time-varying outcome. The questions from the FFCW ask fathers how many days per week he spends with his child engaged in various activities. ${ }^{4}$ Frequency of involvement was operationalized using questions about eight activities in year-1, 13 activities in year-3, and eight activities in year-5 that fathers may engage in with his biological child. In year one of the survey, all fathers were asked—How many days in a typical week does [father] (1) play games like "peek-a-boo" or "gotcha" with [child]; (2) sing songs or nursery rhymes to [child]; (3) read stories to [child]; (4) tell stories to [child]; (5) play inside with toys such as blocks or legos with [child]; (6) take [child] to visit relatives; (7) hug or show physical affection to [child]; and (8) put [child] to bed?

[^3]In year three of the survey, all fathers were asked 13 questions-seven of the same questions (excluding the question about "peek-a-boo") and six new questionsHow many days in a typical week does [father] (1) tell child that you love [child]; (2) let child help with simple chores; (3) play imaginary games with [child]; (4) tell child you appreciate something [child] did; (5) go to a restaurant/out to each with [child]; and (6) assist child with eating?

In year five of the survey, all fathers were asked eight questions-four questions overlap with year one and five questions overlap with year three-How many days in a typical week does [father] (1) sing songs or nursery rhymes to [child]; (2) read stories to [child]; (3) tell stories to [child]; (4) play inside with toys such as blocks or legos with [child]; (5) tell [child] you appreciate something he/she did; (6) play outside in the yard, park, or a playground with [child]; (7) take [child] on an outing, such as shopping, or to a restaurant, church, museum, or special activity or event; and (8) watch TV or a video together? The scale reliability coefficient, also known as Cronbach's alpha, for these items in year- 1 is 0.82 , in year- 3 is 0.85 , and in year- 5 is 0.84 .

Fathers' frequency of involvement ranges from 0 to 7 days per week. A value of zero indicates that father does not engage in a given activity with his child. A value of seven indicates that father engages in a given activity daily with his child. The timevarying dependent variable for fathers’ frequency of involvement was created by computing the average fathers' reported frequency of involvement in eight, 13, and eight activities separately for the year- 1 , year- 3 , and year- 5 data; the value of the dependent variable also varies from 0 to 7 days per week.

Child Support Enforcement Policies. This chapter uses two time-varying statelevel child support measures to estimate the strength of states’ child support enforcement efforts-one measuring child support collection rates and one measuring paternity
establishment rates. The child support collection rate is the total amount of child support collected and distributed as current support as a proportion of the total amount of current child support due in a state in a given year. ${ }^{5}$ The paternity establishment rate is the number of children in the caseload in the fiscal year that were born out-of-wedlock with paternity established or acknowledged as a proportion of the number of children in the caseload as of the end of the preceding fiscal year who were born out-of-wedlock. ${ }^{6}$ The state-level child support enforcement and welfare policy variables are each linked to individuals in the FFCW data using the year of interview and mother's state of residence at the time of the interview. ${ }^{7}$

The child support collection rate and the paternity establishment rate were purposively selected as variables to accurately represent changes in state-level child support enforcement. Paternity establishment is a necessary, but not sufficient, first step towards strict child support enforcement. Gains in paternity establishment increased from less than one-third of cases in the mid-1980s (Lerman and Sorensen, 2003) to over 80 percent in our sample states in recent years and may exceed 100 percent. ${ }^{8}$ Likewise, the proportion of CSE collections has increased dramatically in recent decades-from 23 percent in 1978 to 87 percent in 1997-while the per case collections have not changed significantly (U.S. House of Representatives, Committee on Ways and Means, 2004). Although examining different outcomes, other literature has used these same measures as proxies for the strength of states’ child support enforcement (Acs and Nelson, 2004;

[^4]Plotnick, Garfinkel, McLanahan, and Ku, 2006; Garfinkel, Huang, McLanahan, and Gaylin, 2003).

Welfare Policies. This chapter uses three time-varying state-level welfare policy measures-maximum monthly TANF benefits, time limits, and family cap implementation-to estimate the generosity of the state's welfare program. ${ }^{9}$ Maximum monthly TANF benefits (in 2006 inflation-adjusted dollars) are estimated for a 3-person family in each state for each year that respondents were interviewed. The TANF lifetime time limit is measured as a dichotomous variable with a value of 1 if the time limit is 60 months and a 0 if the time limit is less than 60 months. The TANF family cap variable is a dichotomous variable with a value of 1 if a state has implemented a family cap provision and a 0 if there is no family cap on welfare benefits in the state. Although other welfare policy measures could have been chosen-work requirements, diversion policies-the selected policies most accurately represent welfare generosity in a numerically measurable way that varies both over time and from one state to another.

Father, Mother, and Child Characteristics. Fathers and mothers each reported on their own demographic and social characteristics. Most of the demographic and social characteristics are measured as time-invariant (i.e., mother's and father's age and education and nativity, father's race and ethnicity, number of father's other biological children, child gender, whether the father had an involved father, and whether there was another man who was like a father while he was growing up). Of these time-invariant characteristics, some are fixed, including child gender, race and ethnicity, nativity, and whether the father had an involved father or another father-figure in his life while he was growing up. These were measured at baseline or at the earliest point the respondent first

[^5]entered the survey. Mother's and father's education and age was measured at year one, and the number of father's other biological children was measured in the baseline survey.

Race and ethnicity is coded as three dichotomous variables for non-Hispanic African American, Hispanic, and non-Hispanic other; non-Hispanic white is the omitted category. Father reports of whether his father was involved in raising him was dichotomized as very involved versus somewhat involved, never involved, or never knew his father. Father reports of whether there was another man who was like a father to him when he was growing up was dichotomized as yes or no. Mother's age and race and ethnicity were excluded from the multivariate analyses because of collinearity with father's age and race and ethnicity. Education was dichotomized as a high school education or greater and less than a high school education. Fathers’ incarceration was measured using both mother and father reports of incarceration status.

Some of the demographic characteristics are time-varying, that is, they are measured in all three waves. Child's age in months at the time of the father's survey is a time-varying predictor which also serves as the time variable in the model. Child's age is centered around 12 months to make the constant easier to interpret. Additional measures that are time-varying in our models include, whether the father was ever incarcerated, whether the father is currently incarcerated, whether the mother received financial help from anyone other than the father within the past 12 months, and the mother and father reports about the quality of their relationship. Mother's and father's report about their current relationship quality are dichotomized as excellent, very good, or good versus fair or poor.

In general, to reduce the likelihood of omitted variable bias, independent variables were included that may vary by state and that could potentially be correlated with the policy variables. For example, inclusion of a variable measuring whether the father lives
in a different state from the mother was considered but ultimately excluded because this variable is a close proxy for the dependent variables.

## ANALYTIC APPROACH

The FFCW data include measures of fathers' involvement at three different points in time when the focal child is approximately one, three, and five years old. This allows us to model the change in fathers' involvement between the ages of one and five for the focal child. This data structure coupled with the appended policy variables measured over time, permits a longitudinal modeling strategy for two of our three father involvement measures (accessibility and engagement) and a point-in-time modeling strategy for our third father involvement measure (responsibility).

For outcome one (accessibility) and three (engagement), we use longitudinal models to estimate the effect of both policy variables and individual characteristics on the fathers' involvement variables. For accessibility, we use three discrete measures of living arrangements (i.e., married, cohabiting, and separate--the omitted category). We then use random intercept models that permit variation in the estimated odds of marriage, cohabitation, and staying separate. To estimate outcome one, we use the GLLAMM procedure in Stata 10 with the MLOGIT LINK subcommand (Rabe-Hesketh, Skrondal, Pickles, 2004).

Outcome two is a multinomial logistic model with the dependent variable measuring material support (responsibility) (i.e., resident father, formal support agreement, informal support agreement, and no support agreement--the omitted category) in year-1. The results for the multinomial logistic outcomes one and two are shown in

Tables 4.3 and 4.4. ${ }^{10}$ To ease interpretation, Tables 4.3 and 4.4 show odds ratios obtained by exponentiating the coefficients ( $\exp (\mathrm{b})$ ) from the multinomial logit models.

For outcome three, we use continuous measures of fathers' frequency of involvement or engagement in various activities and use a random intercept and slope model. Our measures are changing with the age of the child (centered around 12 months). The random slope of age accounts for variations around the average trajectory of father's involvement as the children in the FFCW data age. We estimate frequency of involvement using a standard linear growth curve model. We use the XTMIXED procedure to estimate this random intercept model in Stata 10.

Because this chapter uses both state- and individual-level data, outcomes within the same state may not be independent, thus the standard errors need to be adjusted for this. For outcome one, we used cluster-robust standard errors to account for unobserved heterogeneity at the state-level. For outcome two, we use the survey data commands in Stata for multinomial logistic regression analysis examining fathers’ responsibility (material support). The sampling framework for the FFCW study is explicitly designed to account for the correlational nature of the data. For outcome three, we checked the robustness of our results by using a three level model, with state as the third level, in order to generate standard errors that account for clustering at the state level. The main results (not reported) are nearly identical to the results we report (the significance levels of all the policy variables are unchanged). For outcome three, we also ran the full model with and without state fixed effects to account for possible clustering of frequency of involvement by state. Adding fixed effects did not change the results.

[^6]
## Results

## Descriptive Findings

Table 4.1 presents descriptive statistics for the dependent variables in year-1, year-3, and year-5 used in the analysis. All the mother-father pairs in the analytical sample were unmarried at baseline. One year later, 13 percent of the analytic sample was married, 50 percent were cohabiting, and 37 percent were separated, divorced, friends, or had no relationship. The percentage of parents who were married increased to 21 and 24 percent by the time of the year- 3 and year- 5 surveys, respectively. The percentage of parents who were cohabiting declined to 41 and 27 percent by the time of the year-3 and year-5 surveys, respectively. Finally, the percentage of parents who were separated, divorced, friends, or had no relationship was similar in the year-1 and year- 3 surveys at about 37 to 38 percent but increased dramatically to 49 percent by the year-5 survey. ${ }^{11}$

At the time of the year-1 survey when data were gathered about material support from fathers, nearly two-thirds (61 percent) of fathers in the analytic sample were residing with their focal child (i.e., sole custody, married, or cohabiting), 15 percent had a formal support agreement, 16 percent had an informal support agreement, and 8 percent had no agreement to provide child support (see Table 4.1). Fathers spent 4.4 days per week, on average, engaged in activities with their one year old. However, this had declined slightly to 4.2 days per week in the year-3 survey and had further declined to 3.7 days per week when the child was five years old.

Table 4.2 presents descriptive statistics for the year-5 state-level public policy variables and the other independent variables used in this chapter. The overall current

[^7]child support enforcement collection rate was 0.60 for the set of states in the analytic sample as a whole and ranged from a low of 0.36 in the District of Columbia in 2001 to a high of 0.79 Wisconsin in 2001. ${ }^{12}$ The average paternity establishment rate for individuals in the study sample was 0.71 in the analytic sample as a whole and ranged from a low of 0.31 in the District of Columbia in 2001 to a high of 1.01 in Maine in 2003. Higher collection rates and paternity establishment rates are generally associated with stricter child support enforcement.

Table 4.2 also shows the mean values for the welfare policy variables in the study sample. By 2006, 58 percent of individuals in the study sample lived in states with a family cap up from 52 percent in 1999. Generally speaking, states with family caps are considered less generous with their welfare benefits than states without a family cap. By 2003, ten of the 15 FFCW states had implemented a family cap policy. Additional policy data show that 18 of the 32 states used in the policy analysis for year five had implemented a family cap by the end of 2006.

As Table 4.2 shows, at the time of the year- 1 survey, 85 percent of the study sample lived in states that had implemented a 60-month lifetime time limit on TANF benefits. Only four states out of 32 had a shorter than a 60 -month lifetime time limit, and two out of 15 of the original FFCW study states-Indiana and Florida-had a shorter than 60-month lifetime time limit on TANF benefits by 2003. The maximum inflationadjusted TANF benefits for a family of three averaged $\$ 473$ (in 2006 dollars) but ranged from a low of $\$ 194$ per month in Mississippi in 2001 to a high of $\$ 734$ per month in California in 2001 for the families in the study sample.

[^8]Table 4.2 also presents descriptive statistics for the individual-level independent variables used in the analysis. Sixty-three percent of fathers and 68 percent of mothers had a high school education or greater. About one-third (35 percent) of fathers had ever been incarcerated and 4 percent were currently incarcerated at the time of the year- 1 survey. The sample is racially and ethnically diverse with 13 percent non-Hispanic whites, 55 percent non-Hispanic African Americans, 28 percent Hispanics, and 3 percent non-Hispanic others. Fathers' average age was 27.4 years old, and 88 percent of fathers were native-born. Mothers' average age was 24.9 , and 90 percent of mothers were native-born. Only 36 percent of fathers said their own biological fathers had been very involved in raising them, and 44 percent said there was another man who was like a father to him as he was growing up. Forty-three percent of mothers received financial help or money from someone other than the father within the past 12 months. The focal children's average age was 15.8 months old at the time of the year one father's survey. Seventy-eight percent of mothers and 83 percent of fathers said their relationship with the other parent was excellent, very good, or good at the time of their year- 1 survey.

## Multivariate Findings

Tables 4.3 through 4.5 show the longitudinal regression results estimating the effect of state-level child support enforcement and welfare policy variables on fathers' accessibility, responsibility, and engagement with his child. In addition to the policy variables, the predictor variables include father, mother, and child characteristics. Each table shows three models with Model 1 showing the impact of the public policies alone, Model 2 showing only the impact of the individual-level variables, and Model 3 showing the combined impact of the policy variables and the individual-level variables. For brevity, this chapter focuses on the effect of the public policy variables with brief references to the impacts of the individual characteristics. Entering the variables
stepwise in the order shown generally did not result in significant changes in the coefficients of prior variables; therefore, the three grouped models are the only ones shown.

Tables 4.3 and 4.4 present odds ratios calculated from the multinomial logistic regressions. Table 4.3 shows that four of the five policy variables significantly affect marriage and two of the five policy variables significantly affect cohabitation compared to staying separate when individual-level controls are included in the model. ${ }^{13}$

In interpreting Tables 4.3 and 4.4, it should be noted that the child support enforcement variable and the paternity establishment variable are defined to be ten times their actual rates. As a result, the relative risk ratios in Tables 4.3 and 4.4 for these variables reflect the effect of a ten percentage point increase in the rates for these variables. This translation was done to ease interpretation of the magnitude of the multivariate coefficients.

Thus, Table 4.3 shows that the odds of being married over staying separate are 46 percent lower for a 10 percentage point increase in child support enforcement (e.g., from 0.65 to 0.75 , the maximum value in the year- 5 data). The odds of cohabiting over staying separate are also reduced by child support enforcement. In particular, the odds a couple cohabiting is 24 percent lower, on average, for a 10 percentage point increase in child support enforcement.

For example, in 2006, because the child support enforcement collection rate is 0.65 in New York and 0.75 in Pennsylvania, the odds of a couple cohabiting as opposed

[^9]to living separately is 24 percent lower in Pennsylvania than in New York, holding all else constant.

The paternity establishment rate has a significant impact on living arrangements, both marriage and cohabiting, over time as shown in Model 1. Model 1 indicates that increasing the paternity establishment rate reduces the odds of marriage and cohabitation compared to staying separate. The relationship between paternity establishment and marriage ceases to be significant in Model 3 when individual characteristics are held constant. However, paternity establishment does have a negative and marginally significant effect on cohabitation compared to staying separate over time, holding all else constant, as Model 3 shows. In particular, the odds of a couple cohabiting rather than staying separate is 11 percent lower, on average, for a 10 percentage point increase in the paternity establishment rate. For example, in 2006, because the paternity establishment rate is 0.83 in Massachusetts and 0.92 in California, the odds of a couple cohabiting as opposed to staying separate is approximately 11 percent lower in Massachusetts than in California, holding all else constant.

As with child support enforcement, our results indicate that the family cap policy had a significant and negative impact on marriage over time. As Table 4.3 indicates, the odds of marriage are 61.0 percent lower in states with a family cap (Model 1), and this effect is reduced to 40.6 percent lower in states with a family cap when individual-level characteristics are held constant (Model 3). For example, in Michigan or Ohio, parents who have a non-marital birth are 40.6 percent less likely to marry than parents in Illinois or Indiana, holding all else constant. Although one explicit goal of the family cap policy was to reduce non-marital births, a reduction in marriages following a non-marital birth may be an unintended consequence. Our results also indicate that the family cap policy does not significantly affect cohabitation compared to the likelihood of staying separate.

Model 3 in Table 4.3 indicates that in states with a TANF lifetime time limit of 60 months, parents unmarried at the time of their child's birth are 33.1 percent more likely to marry over time compared to states in which the TANF time limit is fewer than 60 months. It seems counterintuitive that couples would be more likely to marry in states with more generous time limits since it seems likely that couples might fear losing their benefits if their income exceeded state maximum. However, it is difficult to say how this would play out in the longitudinal analysis since, for some respondents, time limits may have elapsed. We posit that TANF time limits are having an unpredictable effect on marriage among low-income parents who are unmarried at the time of their child's birth.

Model 3 in Table 4.3 shows that the odds of being married is 6.4 percent lower in states with $\$ 100$ more in monthly TANF benefits compared to staying separate, holding all else constant. It is plausible that single parents concerned about losing their TANF benefits if they marry would elect not to marry and that the higher the TANF benefits the greater the incentive not to marry. We also find that higher TANF benefits may make couples more likely to cohabit than stay separate but that this effect is no longer significant once social and demographic controls are added to the model.

Table 4.3 indicates that several social and demographic factors reduce the odds of marriage and cohabitation compared with staying separate. These include father ever being incarcerated or currently being incarcerated, the mother receiving support from someone other than the father, father being African American or non-Hispanic other, mother being native-born, and the child's age in months (reduces cohabitation only). Not surprisingly, mother and father reports of having an excellent, very good, or good relationship greatly increases the likelihood of marriage and cohabitation over staying separate, and increasing the number of father's other biological children slightly increases the likelihood of cohabitation over staying separate over time.

Table 4.4 shows the impact of state policies on fathers' material support when the child is approximately one year old. Table 4.4 shows results that are largely opposite in effect from Table 4.3 for the child support enforcement collection rate. In this point-intime analysis, our results indicate that fathers' formal and informal material support is significantly increased by a state's child support enforcement collection rate, even controlling for individual characteristics. Specifically, Model 3 in Table 4.4 shows that the odds of having a formal support agreement rather than no agreement is about 49 percent higher for a 10 percentage point increase in child support enforcement, holding all else constant. Model 3 also shows that the odds of having an informal support agreement rather than no agreement is about 26 percent higher for a 10 percentage point increase in child support enforcement, holding all else constant. These results are not surprising, given that the express purpose of child support enforcement collections is to increase the formal financial responsibility of nonresident fathers.

Table 4.4 also indicates that father's material support is increased by having a more generous TANF time limit while the other policy variables do not have a statistically significant impact on fathers' material support for his one year old child. As Model 3 in Table 4.4 shows, a longer TANF time limit has a significant positive impact on formal support agreements but not on residency or informal support agreements compared to fathers with no material support agreement. In particular, in states with a 60-month time limit on TANF benefits, fathers are about 250 percent more likely to be providing formal support to their children.

Table 4.4 also shows that there are a few factors that decrease the likelihood that a father will be residing with his child including the father being currently incarcerated, father being non-Hispanic African American, the mother receiving support from someone other than the father within the past year, and the child's age. Mothers and fathers
reporting that their relationship status is excellent, very good, or good make the father much more likely to be a resident father but decrease the likelihood of formal or informal support. Our analysis shows that there are no individual factors that statistically significantly increase the likelihood of a father providing formal support, however, current incarceration and the mother reporting that she has an excellent, very good, or good relationship with the father reduce the likelihood of formal support payments. Father's increased education and a father being native-born significantly increase the likelihood that he will provide informal support, while being currently in jail and the mother reporting that she has an excellent, very good, or good relationship with the father reduce the likelihood of informal support.

Table 4.5 shows the results for the impact of policies on fathers' daily engagement with his child over time. The child support enforcement rate and family cap policy both had a significant and negative impact on fathers' frequency of involvement over time, holding all else constant. In states with a family cap policy, fathers spend approximately one-fifth (0.18) of a day less engaged in various activities with their young child than in states without a family cap policy. Although this may not seem like a large amount of time, it depends on the base. For example, a 0.18 days per week decrease for all activities is a 4.4 percent decrease in frequency of involvement when fathers spend an average of 4.1 days per week ( 4.1 is the average of $4.4,4.2$, and 3.7 days per week in the year-1, year-3, and year-5 data) engaged in activities with his child.

Model 3 of Table 4.5 also shows the significant negative impact of the child support collection rate on fathers' frequency of involvement with his young child over time. Model 3 shows that fathers spend about 0.14 days fewer, on average, with their child for each 10 percentage points increase in the child support enforcement rate, holding all else constant. For example, in 2006, fathers living in Illinois (0.52) instead of

Virginia (0.62) are spending about 0.14 days more with their young children because of the difference in the child support enforcement rates, holding all else constant. Another example in 2006 is fathers living in Florida (0.54) spend approximately 0.28 fewer days engaged in various activities with their young children compared to fathers living in Pennsylvania (0.75), the state with the strictest child support enforcement collection rates in 2006, holding all else constant. This amounts to a 6.8 percent reduction in the amount of time a father spends engaged in activities with his child in Florida compared to Pennsylvania, holding all else constant. Clearly, if fathers are spending 4.4 percent less time (because of the family cap) to 6.8 percent less time (because of a 20 percentage point increase in child support enforcement rates) with their children as a result of policies that were never intended to reduce fathers' involvement, this could have an important impact on the lives of many of these children.

The paternity establishment rate results in increases in fathers’ frequency of involvement with his child, as Model 3 in Table 4.5 shows. In particular, fathers in a state with a 10 percentage point higher paternity establishment rate would spend 0.05 days per week more with their child, on average, holding all else constant. For example, in 2006, fathers living in Florida (0.89) would spend approximately 0.05 days per week more, on average, engaged in various activities over time with their young children than a father living in New York (0.78), holding all else constant.

Several demographic and social factors increased or decreased father engagement with his child over time, as shown in Table 4.5. Fathers having a very involved biological father or other father figure in their lives, fathers being native-born, and mothers and fathers reporting having an excellent, very good, or good relationship with each other all increased fathers’ involvement, holding all else constant. Older fathers,
current incarceration, and older child's age all decreased the likelihood of father's frequency of involvement, holding all else constant.

## DISCUSSION

This chapter examines the extent to which child support and welfare policies effect fathers' involvement with their young children. By exploiting state-level variations in public policies using longitudinal data, this chapter examines the impact of public policies over time. Finally, this chapter models fathers' involvement for couples who were unmarried at the time of the child's birth to permit an examination of the impact of policies on father's joint decisions about living arrangements and involvement with the focal child.

The results show that stronger child support enforcement collection rates may negatively affect marriage and cohabitation compared to staying separate and may also negatively affect fathers' frequency of engagement with the focal child over time. If mothers are able to receive the financial support they need through legal avenues, it is possible that they will not seek additional in-kind and emotional support through contact with the father. Strong child support enforcement may also embitter fathers to the mothers and, in turn, to their child because strong child support collection policy is associated with less time spent engaged with the focal child. On the other hand, stronger support collection rates show a positive impact on material support. In particular, stronger collection rates increase the likelihood that parents have a formal or an informal child support agreement compared to having no agreement to pay child support. This is not surprising because the express purpose of increasing child support enforcement collection rates is to increase the formal child support paid to custodial parents.

The paternity establishment rate has a marginally significant negative effect on cohabitation compared to staying separate, and, a result seemingly at odds with this, also
has a marginally significant positive impact on fathers' frequency of involvement with his child over time. It is possible that knowing paternity pushes unmarried couples further towards a decision to marry or stay separate but, in effect, may reduce the middle ground of cohabitation which may stem from unknown paternity in some cases. It is not surprising that a higher paternity establishment rate might be associated with increased frequency of involvement, if, when paternity is certain, fathers are more likely to care for and spend time with their children, even if they do not live with them.

Family cap policies have a negative impact on father's involvement in terms of both living arrangements and frequency of involvement. Clearly, the financial incentives that family cap policies impose on families with a non-marital birth affect couples' decisions about marriage. While the policy's explicit goal is to reduce non-marital births, discouraging parents from marrying may reduce the likelihood of future births that may later be in a single parent family if the couple separates. With a family cap, it may be harder to support any additional children. An unintended consequence of the family cap policy, however, is the reduction in marriages for the children already born out-ofwedlock and the reduced time spent by fathers with their young children over time.

It is interesting that the family cap policy and the child support enforcement collection rate policy are the only policy variables to negatively affect the frequency of fathers’ involvement, given that other public policies affect living arrangements (e.g., paternity establishment rates, maximum TANF benefits), and one would expect that marriage affects fathers' frequency of involvement. ${ }^{14}$ It may be that the relationships these other policies affect are ones in which the father is much less involved than in the average relationship. This would mean that it is possible that the purported relationshipeffect on frequency of involvement is due mostly to selection; the act of getting married

[^10]or cohabiting may have little direct influence on the frequency of a father's involvement with his children.

This finding may call into question some of the value of policies designed to promote marriage. It may appear that federal marriage promotion policies may be the best way of increasing marriage and cohabitation, thereby, increasing fathers' involvement. These results indicate that one should not come to such a conclusion too quickly, however, because the marriages that occur absent federal incentives may be quite different from the marriages that occur because of federal marriage promotion policies.

The results also show that more generous TANF lifetime time limits have a positive effect on marriage and two types of material child support (i.e., father residency and formal support) compared to not having a child support agreement. If a more generous time limit permits the mother time to get on her feet, she may be viewed as better marriage material by the father. Or, perhaps if a mother has more resources because she can receive welfare for up to 60 months, then these resources may be used to pursue formal child support.

It should be noted that although it appears that these findings are only analyzing the effect of child support and welfare policies on behavior after the birth of the focal child, it is also possible that these results reflect the influence of the policies on mothers' decisions about their fertility through their selection into the sample. For example, instead of strict child support enforcement deterring unmarried mothers from marrying, the negative effect of child support enforcement on marriage and cohabitation could be due to women in states with strict child support enforcement being more likely to decide to have a baby regardless of whether she believes that the father will marry or cohabit with her because she knows that she is likely to be able to obtain child support. On the
other hand, women living in a state with weak child support enforcement may be more likely to avoid having a child if they think they are unlikely to marry or cohabit, either by using birth control, having an abortion, or through abstinence because they do not expect significant child support. These women who elect not to have a non-marital birth do not make it into the Fragile Families sample. This would explain our finding that strong child support enforcement policies are associated with lower marriage and cohabitation rates-women living in a strict child support enforcement state are more likely to stay separate from the father because they are more likely to be able to obtain child support. Women living in a state with weak child support enforcement either do not have a nonmarital birth and are not in the sample or have a non-marital birth and marry or cohabit with the father to receive support.

There is one important limitation of the chapter. This chapter does not estimate the impact of every aspect of child support enforcement policies or of welfare policies. Although the policy measures selected for this analysis do account for states' strictness of child support enforcement and welfare reform policies, there are numerous other aspects of these policies-such as work requirements for welfare and pass-through and disregard policies for both welfare and child support-that may affect fathers' involvement with their children. There are two additional minor limitations related to the FFCW data. First, the FFCW data are an urban sample that is predominantly low-income; it is unclear if these results would generalize to nonurban populations. However, these data are appropriate for estimating the impacts of child support and welfare policies because these policies are more likely to affect custodial families who are also often low-income (Lerman and Sorensen, 2003). Second, fathers' material support is only available in the year-1 FFCW survey. Therefore, results for the accessibility and engagement outcomes are longitudinal, making them both more robust and increasing the likelihood that the
effects we report are causal in nature. However, this longitudinal analysis was not possible for the material support outcome.

## Chapter 5: Two Dads Are Better Than One: Biological and Social Father Involvement

Despite the extensive literature considering the role of step-parents in their children's lives, there is a dearth of information comparing the involvement of a child's biological father, mother, and mother's current partner (hereafter social father) in raising that child. For this chapter, we define social father as the mother's current partner, one who is not the child's biological father, but who demonstrates parental behaviors, and who is "like a father" to the child (Tamis-LeMonda and Cabrera, 1999). For several reasons, few studies have considered the extent to which social fathers enter a child's life as a substitute or complement to the role of the biological father. First, there are few nationally-representative data sources measuring biological fathers' involvement and even less information collected on social fathers. Second, many studies only collect basic financial information about child support and the presence or absence of the biological father in the household. Third, much of the past literature has focused on two-parent married families or the role of step-parents after remarriage. However, with 40 percent of U.S. children living in nonstandard family arrangements (Krieder and Fields, 2005), the role of resident social fathers who may marry or cohabit with the child's mother is relatively understudied.

This chapter examines the frequency of involvement with their children for resident and nonresident biological fathers, mothers, and resident social fathers in three ways. First, it compares the frequency of involvement of each parent in the focal child's life and, in particular, compares the involvement of resident biological and resident social fathers. Second, it compares the frequency of involvement for three types of living arrangements-resident biological father and mother family, mother-only family, and
resident social father and mother family-and for different racial and ethnic groups. Third, it predicts which social and demographic factors significantly impact biological fathers' involvement, mothers' involvement, and all parents' involvement overall and disaggregated by race and ethnicity. Frequency of involvement is operationalized using the number of days (ranging from 0 to 7 ) that parents engage in 13 age-appropriate activities (e.g., reading, singing songs, playing with the child, telling the child you love him/her). We calculate the mean number of days of involvement for these 13 activities for biological mothers, resident and nonresident biological fathers, and for social fathers residing with the mother and child. The construction of our dependent variables is discussed in greater detail below.

Building on prior research in this area, this study provides a substantive contribution to the family studies literature by elucidating the role of social fathers in the lives of young children. This chapter also contributes to the growing literature on child development assessing the extent to which social fathers' involvement in children's lives as a substitute or a complement in the duties and activities provided by a biological father.

This chapter answers the following three research questions: (1) What are the patterns of frequency of involvement for biological fathers, mothers, and social fathers with their young child, and how do these differ by race and ethnicity?; (2) What is the role of social fathers in predicting biological fathers', mothers', and overall parental frequency of involvement?; and (3) What demographic and social factors predict biological fathers', mothers', and overall parental involvement, given the role of social fathers, and do these vary across different racial and ethnic groups? The chapter uses descriptive analysis to examine (1) and ordinary least squares (OLS) regression analyses to address (2) and (3).

The chapter proceeds as follows. The following section reviews the relevant literature, noting the contribution this chapter makes to that literature and elaborating on the specific research questions to be addressed in the analysis. The next section describes the methods, including the data used and the dependent and independent variables used in the analysis. The results section describes the frequency of involvement of mothers, nonresident and resident biological fathers, and resident social fathers overall and for each of 13 activities (Table 5.1). A discussion of parental involvement by race and ethnicity and living arrangements (Table 5.2) precedes a brief discussion of the descriptive statistics overall and by race and ethnicity (Table 5.3). The findings from the multivariate analysis first describes the social and demographic factors that predict parental involvement overall (Table 5.4) and then by race and ethnicity for all parents (Table 5.5), for biological fathers (Table 5.6), and for mothers (Table 5.7). The chapter concludes with a discussion of the salient results, limitations of the data and findings, and potential policy implications.

## DATA AND METHOD

This chapter uses data from the FFCW study-a large-scale, nationallyrepresentative, longitudinal survey. The study follows a birth cohort of 4,898 children living in urban areas with over 200,000 people. Baseline interviews (at the time of the child's birth) were conducted with 4,898 mothers and 3,830 fathers in 20 United States cities between February 1998 and November 2000. Baseline data (3,712 non-marital, 1,186 marital) were collected in 75 hospitals. Hospitals were selected within each city to be representative of non-marital births within that city, and married and unmarried births were sampled within hospitals until preset quotas were reached on the basis of the percentage of non-marital births in that city in 1996 and 1997. Births to unmarried parents are substantially over-sampled and are nationally-representative when weighted;
however, the sample is not nationally-representative of marital births (Reichman, Teitler, Garfinkel, and McLanahan, 2001). Eighty-seven percent of eligible unmarried mothers and 82 percent of eligible married mothers completed baseline interviews (BendheimThoman Center for Research on Child Wellbeing, 2005). Biological fathers were eligible if the mother completed a baseline interview. Seventy-five percent of eligible unmarried biological fathers and 88 percent of eligible married biological fathers were interviewed at baseline.

Follow up interviews occurred at one year and three years after the baseline survey. This chapter uses mother and biological father interview data from the year-3 survey. The year-3 follow up sample includes 4,231 mothers and 3,299 fathers. This chapter examines 2,453 matched pairs of biological fathers and mothers from the year-3 sample. Therefore, the response rate for matched pairs in this sample is 58.0 percent for mothers and 76.0 percent for fathers. Separate models are run by race and ethnicity on samples that include 636 non-Hispanic white, 1,036 non-Hispanic black, and 675 Hispanic families; 106 non-Hispanic other families are included in the full models but are omitted from the separate models due to small sample size. To be included in the main analytic sample (used in Tables 5.1, 5.2, 5.3, and 5.5), the mother and biological father must have answered questions about their frequency of involvement in the year-3 survey and must not have missing data for the independent variables included in the multivariate analyses. For the analyses in Tables 5.4, 5.6, and 5.7, the analytic sample may be slightly larger since only one parent must have answered questions about their frequency of involvement.

The data are exceptionally rich in comparison to other data that have been used to study fathers. First, the data tie the biological father and mother to a focal biological child, thereby making it possible to analyze child outcomes, the mother-father
relationship, and characteristics of the father and mother. Second, the data are both national and longitudinal with relatively low rates of missing biological fathers and attrition over time. Third, the data are racially and ethnically diverse. Finally, mothers are asked about the involvement of their current resident partner or social fathers with respect to a variety of activities in the child's life.

Parental involvement. For this chapter, parental involvement includes measures of the frequency of involvement for biological fathers, mothers, and resident social fathers. The measures included in this chapter are 13 parallel questions about the focal child asked of the biological father and asked of the mother about herself and her current resident partner, if she has one, concerning the focal child. The questions from the FFCW that ask biological fathers and mothers about how many days per week each parent spends with the child engaged in 13 age-appropriate activities are similar to measures in the Early Head Start Study's Fatherhood Component parental survey (Carlson, McLanahan, and Brooks-Gunn, 2006) conducted when the child was 3 years old.

All biological fathers and biological mothers were asked about themselves, and mothers with a current resident partner were asked the following questions about their partners: How many days in a typical week does [parent] (a) sing songs or nursery rhymes to [child]; (b) hug or show physical affection to [child]; (c) tell [child] that you love him/her; (d) let [child] help you with household chores; (e) play imaginary games with [child]; (f) read stories to [child]; (g) tell stories to [child]; (h) play inside with toys such with [child]; (i) tell [child] you appreciated what they did; (j) take [child] to visit relatives; (k) go to a restaurant or out to eat with [child]; (l) assist [child] with eating; and (m) put [child] to bed? The scale reliability coefficient, also known as Cronbach’s alpha,
for these 13 items is 0.84 for biological fathers, 0.68 for mothers, and 0.89 for current resident partners.

Using the responses to the above 13 questions, we construct three different dependent variables-biological fathers’ involvement, mothers’ involvement, and all parents’ involvement. Biological fathers’ and biological mothers’ involvement are constructed by taking the average of the responses of all 13 of the above items. Since the response to each question ranges from 0 to 7 days per week, the composite average biological fathers' and biological mothers' involvement also ranges from 0 to 7 days per week. A value of 7 would be obtained, for example, if the biological parent said that he or she engaged in all 13 activities daily with the focal child. A value of zero indicates that a parent does not typically engage in any of the 13 activities with the focal child. ${ }^{15}$ We construct a dependent variable for all parents' involvement by adding the average of biological fathers', biological mothers', and resident current partners' daily involvement in these 13 activities; the resulting dependent variable-termed all parents' involvement-ranges from 0 to 21 days per week.

Mothers and biological fathers were asked about their own involvement and that of the mother's current resident partner at the time of the interview, not necessarily referencing the same point in time. Since parents are being asked about their own involvement, the lack of a common reference point should not have a detrimental impact on the analyses.

Biological Father, Mother, Social Father, and Biological Couple and Focal Child Characteristics. Biological fathers and mothers each reported on their own demographic and other characteristics, and mothers reported on resident social fathers in

[^11]the year-3 data. For biological fathers, these characteristics included race and ethnicity, employment status, nativity, education, current incarceration, past incarceration, whether the biological father has a current partner other than the mother, whether his biological father was very involved in raising him, and whether another man was like a father to him growing up. A biological father's current and past incarceration were obtained from reports at either the mother or father interview. Mother characteristics included age, education, nativity, employment status, the number of her children with this biological father, and whether the mother had received financial help or money from anyone other than the biological father since the child was born. The biological father's race and ethnicity and father's age were excluded from the multivariate analyses because of collinearity with mother's race and ethnicity and mother's age. ${ }^{16}$ Couple characteristics included whether the mother and biological father were married, cohabiting, or other (including separated, divorced, friends, or no relationship), and mother-father relationship quality reported by the mother. Social father characteristics included two dummy variables measuring whether there is a resident social father and whether there is a nonresident social father. Additional control variables include child's age in months at the time of the mother's year-3 interview and whether the biological father and mother live in different states at the time of the interview. To assess the impact of the child's age at the time of the biological father's year-3 survey and to assess the impact of the time between the biological father and mother interviews, the time between the biological father and mother interviews was also included as a control variable in the model specifications.

The descriptive analyses in this chapter are conducted using cross tabulations and two-tailed unpaired t-tests to assess the significant differences, as shown in Tables 5.1

[^12]and 5.2. The multivariate regression analyses in this chapter are conducted using ordinary least squares (OLS) models in Stata. OLS models are appropriate for crosssectional multiple linear regression analysis (Wooldridge, 2003). We included state fixed effects in the models (results not shown), however, adding state fixed effects to our models did not alter the results.

## Results

This section begins by noting mothers' frequency of involvement in each of the 13 activities and by comparing the involvement of resident biological fathers with resident social fathers (Table 5.1). Table 5.2 describes frequency of involvement for different racial and ethnic groups and for different types of living arrangements. Subsequently, the chapter delves into predictions of parental involvement overall and by race and ethnicity (Tables 5.3-5.7).

As Table 5.1 shows, mothers report the highest levels of involvement in almost every category except going to a restaurant with the child, where all types of fathers (i.e., biological resident and nonresident and social fathers) report greater involvement, and assisting the child with eating-where resident biological fathers report the highest level of involvement. Table 5.1 also shows that resident biological fathers report spending more time with their children than nonresident biological fathers in every activity except going to a restaurant and taking the child to visit relatives.

Table 5.1 shows that the difference between resident biological fathers and resident social fathers is not as large as one might expect. In seven of the 13 activities, resident biological fathers are more involved with their children than resident social fathers by a statistically significant amount. In particular, resident biological fathers report greater levels of involvement in assisting with eating, putting the child to bed, telling the child that he loves him/her, hugging the child, letting the child help with
simple chores, playing imaginary games with the child, and telling the child you appreciate something he/she did. In the six remaining activities, however, resident biological and social fathers are statistically indistinguishable from one another in frequency of involvement with the focal child. On average across all 13 activities, resident biological fathers spend 0.5 days per week more than resident social fathers. While this statistically significant difference is in contrast to some of the prior literature that reports no difference, the relatively small magnitude of this difference may suggest that resident social fathers are serving a much larger role beyond mother's current partner. They may also be substitute fathers to the focal child, at least in terms of their frequency of involvement with the child.

Table 5.2 shows the frequency of involvement for all parents combined and for each parent with the focal child by race and ethnicity (Panel A) and by type of living arrangement (Panel B) at the time of the year-3 survey. As Panel A shows, mothers' average time spent engaged per week in the 13 activities was about 5.0 days per week compared to biological fathers who reported spending 4.2 days per week. Mothers with a current resident partner reported that these social dads spent an average of 4.0 days per week engaged in the 13 activities with the focal child. The combined frequency of involvement by all parents was 9.4 days, on average. Non-Hispanic whites reported slightly higher levels of engagement for mothers (5.1 days per week) and biological fathers (4.4 days per week) while non-Hispanic black mothers (4.9 days per week), Hispanic mothers (4.9 days per week), and non-Hispanic black biological fathers (4.1 days per week) and Hispanic biological fathers (4.2 days per week) reported marginally lower involvement, on average. As Table 5.2 shows, the differences between nonHispanic whites and blacks are statistically significant as are the differences between
non-Hispanic whites and Hispanics. However, the differences between non-Hispanic blacks and Hispanics are not statistically significant.

Social fathers of all race and ethnic groups report similar levels of involvement with 3.9, 4.0, and 3.7 days, on average, for non-Hispanic whites, non-Hispanic blacks, and Hispanics, respectively, and these differences are not statistically significant. Overall parental involvement varies somewhat by race and ethnicity with non-Hispanic whites reporting the highest levels at 9.7 days, non-Hispanic blacks reporting 9.3 days, and Hispanics reporting 9.2 days. Again, the difference between non-Hispanic whites and blacks and Hispanics are statistically significant, however, differences between nonHispanic blacks and Hispanics are not statistically significant.

Panel B in Table 5.2 shows, not surprisingly, that the family type with the lowest average level of involvement is mother-only households where the mother and the nonresident biological father jointly contribute 8.6 days per week across all 13 activities: 4.9 days from the mother and 3.7 days from the nonresident biological father. Motheronly households are statistically significantly different from two-parent families, with mother-only households having a frequency of involvement that is nearly one day (0.9) less than households with resident biological fathers and mothers and 2.7 days fewer than households with resident social fathers and mothers and nonresident biological fathers. Panel B in Table 5.2 also shows that families with a resident social father and a mother have the highest levels of parental involvement at 12.2 days per week, on average. This amounts to 2.7 days per week greater than biological nuclear families and 3.6 days per week, on average, more than mother-only families. These differences are statistically significant, as shown in Table 5.2.

The extent to which this quantity of time represents quality time that is beneficial to the child is beyond the scope of this study. However, it is worth noting that the 13
activities measured as part of this study all represent positive interactions with the child. Finally, mother's frequency of involvement does not vary considerably from one household type to another-perhaps representing her tradeoff between work as a single parent and help in parenting a two-headed family. Biological fathers, on the other hand, spend the most time with their children as resident fathers, not surprisingly, but they also may adjust their time downward as a nonresident father from 3.7 days per week to 3.3 days per week when there is a resident social father in the household, suggesting that there is a substitution of his time by that of the social father. These differences in how much time a biological father devotes to his child are statistically significant, as shown in Table 5.2.

Table 5.3 presents descriptive statistics for the independent variables used the regression analyses that follow. Parents’ demographic and social characteristics vary considerably by race and ethnicity in this sample. However, only selected independent variables are discussed here-overall race and ethnicity of the sample, prevalence of mother and father's new partners, and biological father and mother's living arrangements. Slightly less than half of the sample (44 percent) is non-Hispanic black, 27 percent are non-Hispanic white, and 29 percent are Hispanic. An additional 106 (4 percent) nonHispanic other race cases are not included in the descriptive analyses but are included in the multivariate analyses. As mentioned above, since biological father's and mother's race and ethnicity are highly correlated, mother's race and ethnicity is used. Hereafter in this chapter, the term race and ethnicity is used generally for the family. Approximately three years after the focal child was born, about one-tenth of mothers and fathers have a new partner. Mothers report that about one-half of these current partners are resident social fathers, and one-half are nonresident. Re-partnering varies by race and ethnicity, but a similar percentage of mothers and fathers have re-partnered. Fourteen percent of
non-Hispanic black mothers and fathers each have a new partner compared to 6 percent of non-Hispanic white mothers and fathers and 8 percent of Hispanic mothers and fathers.

Table 5.3 also shows that the marital status of the biological parents varies substantially by race and ethnicity in this sample. Twenty-eight percent of non-Hispanic black parents are married and living with the child all or most of the time. This compares to two-thirds (67 percent) of non-Hispanic white parents being married and almost half (46 percent) of Hispanic parents being married when the focal child is about three years old. About one-third of non-Hispanic black and Hispanic parents are cohabiting compared to about half as many non-Hispanic white parents (17 percent) at the time of the year-3 survey. The remainder of parents are separated, divorced, friends, or have no relationship; this amounts to 16 percent of non-Hispanic white parents, 41 percent of nonHispanic black parents, and 19 percent of Hispanic parents.

Tables 5.4 through 5.7 show the OLS regression results predicting all parents', biological fathers', and mothers' frequency of involvement. Table 5.4 shows the results for all race and ethnic groups combined, and Tables $5.5,5.6$, and 5.7 show the results for all parents', biological fathers', and mothers' frequency of involvement, respectively, for non-Hispanic whites, non-Hispanic blacks, and Hispanics. The predictor variables include biological father, social father, mother, and biological couple and child characteristics.

The first model in Table 5.4 shows that several demographic and social factors significantly predict a greater amount of involvement by all parents, including having a resident social father, biological father residency (through marriage or cohabitation), parental relationship quality, mother being native-born, and the biological father having had his own biological father very involved in raising him. Having a social father living with the focal child increases the overall frequency of involvement by 3.9 days per week,
on average, compared to those children without a social father, controlling for other characteristics. Having a resident biological father (either married or cohabiting) increased overall parent involvement by 1.0 day per week compared with a nonresident biological father (separated, divorced, friends, or no relationship with the mother). These results reinforce the descriptive results indicating that resident social fathers are nearly as involved as resident biological fathers and suggests that a child may receive greater parental attention by having a resident social father and a nonresident biological father in comparison to only a resident biological father. Having a biological father that had his own biological father very involved in raising him increased the overall frequency of all parents’ involvement with the child by 0.27 days per week. Having an excellent, very good, or good relationship between the biological mother and father increased the overall parental frequency of involvement by about one-fifth of a day.

Several demographic and social factors decrease all parents' frequency of involvement with the focal child. These include the biological father having a new partner, the biological father being currently incarcerated, increased mother's age, a higher number of children she has with the biological father, and a higher child's age at the time of the mother's interview. The child's age in months reduces all parents' frequency of involvement, with each additional six months in child's age reducing all parents’ involvement by 0.2 days per week. The biological father having a new partner reduces overall parental involvement by nearly one-half day per week, and biological father's current incarceration reduces overall parents' involvement by two-thirds of a day per week. A mother having additional biological children with this father reduces all parents' involvement by 0.13 days per week for each additional child she has with this father. Finally, mother's age is statistically significant but negligible in magnitude.

The second model in Table 5.4 highlights demographic and social factors that significantly increase biological fathers' frequency of involvement with his child. Factors with a significant, positive impact on a father's involvement include his residency with the child through marriage or cohabitation, father and mother being native-born, and having his own biological father very involved in raising him. Cohabiting and marriage increases the involvement of biological fathers the most (by 1.0 and 0.9 days per week, respectively) compared to living separately from the mother and focal child. Having a native-born mother or father increases the frequency of involvement by 0.2 days per week, on average. And, having his own biological father very involved in raising him, increases a biological father's involvement by 0.1 days per week. Current incarceration, biological father having a new partner, and biological father being regularly employed in the previous week all reduce a biological father's average frequency of involvement by $0.7,0.4$, and 0.2 days per week, respectively, holding other characteristics constant.

Model 3 in Table 5.4 identifies factors that significantly increase or decrease a mother's frequency of involvement with her three-year-old child. The only biological father characteristic which increases her involvement with the focal child is the biological father having had a biological father that was very involved in raising him-this increases the mother's frequency of involvement by 0.1 days per week. This finding suggests that mothers who are likely to be involved with their children may tend to choose mates whom they believe are also likely to be involved parents. Modest increases are also noted for mothers with at least a high school education ( 0.1 days per week) and for native-born mothers ( 0.2 days per week). Finally, mothers who report an excellent, very good, or good relationship with the biological father have higher involvement by 0.2 days per week, on average.

This analysis identified a few factors that have a statistically significant negative impact on mother's frequency of involvement, although these effects are all relatively small in magnitude. Mothers having other children with the biological father decrease their frequency of involvement with the focal child by 0.1 day, on average, for each additional child she has with the biological father. The child's age reduces mother's frequency of involvement by about 0.1 days per week for each additional five months in age.

Table 5.5 shows the results for predicting which demographic and social factors significantly impact all parents’ frequency of involvement separately for non-Hispanic whites, non-Hispanic blacks, and Hispanics. The factors that matter most for parental involvement differ in both type and magnitude by race and ethnicity. The presence of a resident biological father or a resident social father in the household of the focal child increases overall parental involvement more than any of the other factors. Among nonHispanic white parents, a married biological father results in the child receiving an additional 1.4 days per week of average parental involvement in the 13 activities, and this is statistically different from a father who is separated, divorced, friends, or has no relationship with the mother. The results for non-Hispanic black and Hispanic parents show a similar positive effect; however, the magnitude is much less than for nonHispanic white parents. For example, after controlling for other individual characteristics, the increase in the total parental frequency of involvement from having a married resident father amounts to 40-45 percent less time for non-Hispanic black and Hispanic families ( 0.9 and 0.8 fewer days per week, respectively). Likewise, holding all else constant, cohabiting resident biological fathers contribute $1.3,1.1$, and 0.7 days per week more to all parents’ frequency of involvement for non-Hispanic whites, non-

Hispanic blacks, and Hispanics, respectively, compared to biological fathers living separately.

As Table 5.5 shows, resident social fathers contribute even more to all parents' frequency of involvement than resident biological fathers. For non-Hispanic whites, having a resident social father yields an additional 4.4 days per week of involvement compared to the mother not having a new partner. This compares to 3.7 days per week and 3.4 days per week for resident social fathers among non-Hispanic blacks and Hispanics, respectively. It is interesting to note that racial and ethnic differences in father involvement are not explained by living arrangements, since the impact for both resident biological fathers and resident social fathers is smaller for non-whites.

Other factors that contribute to all parents' frequency of involvement include the biological father having had a biological father that was very involved in raising him. This increases the involvement by about one-quarter of a day per week for non-Hispanic whites and non-Hispanic blacks. Only among Hispanic families is there evidence of an increase in the frequency of parental involvement due to the mother being native-born (0.8 days per week). Likewise, the mother's report of relationship with the biological father being excellent, very good, or good, is only statistically significant for Hispanic families and increases the frequency of parental involvement by 0.6 days per week, on average, compared to those who report having a fair or poor relationship with the biological father.

Several factors also decrease the frequency of involvement of all parents as a whole and vary by race and ethnicity. Among non-Hispanic blacks, the biological father having a new partner decreases all parents’ involvement by 0.4 days per week, on average, and being currently incarcerated decreases involvement by 0.6 days per week. Finally, the biological father being employed in regular work for pay during the week
prior to the survey reduces all parents' frequency of involvement by 0.3 of a day per week for non-Hispanic black families. Both non-Hispanic white and Hispanic families experience reductions in the frequency of involvement due to the number of children a mother has with the biological father, a one-quarter and one-eighth day per week reduction for non-Hispanic whites and Hispanics, respectively, on average, holding everything else constant.

Tables 5.6 and 5.7, showing the social and demographic factors that predict biological father and mother involvement, offer valuable insights into the interpretation of the coefficients reported in Tables 5.4 and 5.5 . Table 5.4 shows results for all racial and ethnic groups, and Tables $5.5,5.6$, and 5.7 permit a disaggregation of these results by race and ethnicity. This table structure allows one to examine whether a particular factor is operating through the frequency of involvement of the biological father, the mother, or the social father; therefore, Tables 5.6 and 5.7 are described in an effort to identify interesting relationships that differ by race and ethnicity.

Table 5.6 shows that the negative impact of father's current partner on all parents’ and biological father involvement shown in Table 5.4 is due to the negative impact (about -0.5 days per week) on non-Hispanic black and Hispanic biological father's frequency of involvement. The same is true for the negative impact of current incarcerationHispanics (-1.0 days per week) and, to a lesser extent, non-Hispanic black biological fathers ( -0.7 days per week) are driving the negative impact seen in Table 5.4.

Tables 5.6 and 5.7 confirm that marital status does not impact mother's frequency of involvement with her child. However, it does have a large statistically significant impact on biological father's frequency of involvement. As Table 5.6 shows, the impact of marriage and cohabitation also varies by race and ethnicity, with non-Hispanic whites
most affected and non-Hispanic blacks and Hispanics affected to a lesser, but still positive, extent.

## DISCUSSION

This analysis finds that mothers' re-partnering leads to the child receiving an overall increase, on average, in attention from the mother, social father, and nonresident father relative to a child living in an intact family with a biological mother and father. This chapter also finds that resident social fathers show greater levels of involvement than nonresident biological fathers. And, in fact, in nearly half of the measured daily activities with the focal child, resident biological fathers and resident social fathers are statistically indistinguishable in terms of their reported frequency of involvement, though in the remaining activities resident biological fathers do show a greater frequency of involvement than resident social fathers.

The results from this chapter contribute to the literature by illustrating the extent to which biological fathers, mothers, and social fathers interact with their children approximately three years after birth. About two-thirds (68 percent) of the families in this sample are comprised of a resident biological father and mother, about one-quarter (27 percent) are in mother-only households, and about 5 percent are in resident social father and mother families. By examining these varied living arrangements and racial and ethnic differences, the findings indicate that biological and social fathers are neither perfect substitutes nor perfect complements for one another.

If biological and social fathers were substitutes, one would expect to find that, overall, all parental frequency of involvement would be similar for households with a resident biological and resident social father. Yet Table 5.2, Panel B shows a statistically significant difference of about 3.6 days per week. Not only is this difference significant statistically, it is also strikingly large in magnitude, suggesting that nonresident biological
fathers continue to be involved in their children's lives even after the mother re-partners and the resident social father is playing a significant role in the child's life. Likewise, in the regression analysis, one would expect to see that the presence of a resident social father in the household has a negative impact on the biological father's involvement. If biological and social fathers were perfect complements, one would expect to see that the presence of a resident social father in the household would have a positive impact on the biological father's involvement. On average, we do not see this effect for all race and ethnic groups. However, for non-Hispanic whites, a resident social father does increase a biological father's involvement by 0.7 days per week.

Although there is little literature examining the level of involvement for biological and social fathers following a non-marital birth, we expected to find that biological fathers would be more involved with their young children than social fathers. While we find that this is the case, we also find that differences in involvement between biological and social fathers are quite small in magnitude. Social fathers are contributing substantial amounts of time to the lives of their partners' young children. We also expected to see less overall parental involvement in mother-only families where there is not a resident biological or social father, and this is, in fact, the case. Mother-only households have 3.6 and 2.7 days fewer per week of parental frequency of involvement than households with a resident social father or a resident biological father, respectively.

Our findings for different racial and ethnic groups justify our original suppositions that the role of social fathers may be somewhat different for different groups. Although we cannot attribute our findings to cultural differences between groups, our results showing that the role of social fathers, marriage, and cohabitation varies by race are notable. Furthermore, our finding that fathers' current partner other than the mother and incarceration both negatively impact their involvement and that
marriage and cohabitation have less of an effect on their frequency of involvement, indicate that the story is substantially different for different racial and ethnic groups.

It is worth noting the role that selection may be playing in our results. With the exception of incarcerated biological fathers, fathers that attrite from the sample may be those that are the least involved with their children and with the biological mother. To the extent that uninvolved biological fathers attrite from the sample, this would tend to bias our results. Therefore, our results may underestimate the differences between resident and nonresident fathers and thus could overestimate the difference in parental involvement between families with a resident social father versus those with a resident biological father.

One additional point that should be noted is the potential impact of using mothers' reports of frequency of involvement for the social father while using biological fathers' reports about their own involvement. While mothers having good relationships might tend to overestimate the involvement of social fathers, biological fathers estimates of their involvement also tend to exceed those of the mothers, on average. The fact that we use biological fathers' self reports could tend to increase the observed gap between biological and social fathers compared to what we might find if we had social fathers reporting on their own involvement. That said, the results that families with social fathers have greater levels of overall parental involvement may be underestimated by using mother-reports of social father involvement, particularly since Mikelson (2008) finds that the difference between mother and biological reports of father involvement is not affected by father residency.

There are three limitations in the analysis conducted for this study; the first relates to the FFCW data and the second relates to the scope of the analysis. The study sample is drawn from an urban, low-income population, and, therefore, these results may not be
generalizable to other less urban, more affluent populations. Our analysis is for one point in time when the focal child is approximately 3 years old. The year- 1 survey data were excluded due to the low number of social fathers who had entered the survey by the time the child was one year old.

The second limitation of this study relates to the scope. Due to significant problems of endogeneity, this study is limited in that it does not examine the impact of social fathers on child well-being or child development. Examining child well-being and development is extremely important, but the direction of causation between a child's behavior and the social father's involvement, existence, or residency cannot be fully identified without the use of reliable instrumental variables (Bzostek, 2007). Since the analysis uses cross-sectional data, this chapter does not purport to say anything about changes over time or causal dynamics. Finally, some recent literature has emphasized the importance of the quality of the father-child relationship rather than the amount of time they spend together (Stewart, 2003; White and Gilbreth, 2001). Even if one takes as given that the quality of the parental relationship is the superior predictor of overall child well-being, there is still inherent value in understanding how parents interact on a daily basis in various activities with their children and what social and demographic factors predict such involvement.

The third limitation is that some of the regression models have a relatively low Rsquared value, particularly Model 3 in Table 5.4 and Model 2 in Table 5.7. This indicates that, in these cases, our independent variables are not explaining a significant portion of the variation in the dependent variable. Thus, there may be key predictor variables that are not being accounted for.

## Chapter 6: Conclusion

## WHY This DIsSERTATION IS IMPORTANT

Within the past two decades, policymakers have sought to increase the involvement of fathers, particularly unmarried fathers, in the lives of their children. Sweeping policy changes over this time period have dramatically increased the attention paid to fathers' involvement and there has been a growth in empirical research seeking to begin to evaluate the impact of fathers' involvement on their children's lives. Despite the growing interest by policymakers that has made fathers’ involvement an important public policy issue and despite a growth in recent literature, there is much that remains unknown or unverified about fathers' involvement. Given the increasing importance of fathers' involvement, this dissertation makes several notable contributions to the field.

Since much of the existing empirical literature has examined fathers' involvement using mothers' reports about father behavior, this dissertation tackles this issue in its first substantive chapter. While in the past, there may have been a lack of information gathered directly from fathers, that is certainly changing, and there has been and continues to be an increase in data gathered from fathers. In some cases, these data are from large-scale, longitudinal, and nationally-representative surveys of fathers. In other cases, the data are from small-scale, in-depth, data-gathering efforts in one local area or about one local social service intervention. There are also an increasing number of small sample ethnographic sources of data on fathers. The He Said, She Said chapter of this dissertation tackles the over reliance on mother reports of fathers’ involvement, pointing out the potential for bias. It shows that using mother reports of fathers' involvement systematically underestimates the extent of father's involvement relative to using father
reports. Furthermore, it examines the factors that are likely to make this bias more or less severe.

Another area related to fathers where there is a dearth of empirical literature is in examining the impact of public policies on fathers' lives. The research in this dissertation contributes to this area of research and concludes that many public policies have been enacted over the past two decades with little regard to possible unintended impacts on many facets of families' lives. So, while much attention may have been paid to whether child support enforcement has increased the number of fathers paying formal child support, little research has looked at the unintended effects of this and other related public policies. This dissertation fills this gap by examining the effect of child support and welfare policies on various different measures of fathers’ involvement to determine the many effects that these policies can have on families.

Finally, given the rise in cohabitation it has become increasingly important to examine the prevalence and impact of varied living arrangements on children. While some may consider living arrangements that vary from intact married families to be less than ideal, these varied living arrangements may represent changing norms, and, in any case, are certainly already a reality for many families. The third substantive chapter in this dissertation fills a noticeable gap in this literature by examining the prevalence of social fathers and their involvement with the child in the household as compared to the nonresident biological father.

## Findings and Policy Recommendations

Each substantive chapter of this dissertation presents a unique contribution to the literature. Each chapter also serves to inform the reader by providing a contribution substantively or methodologically to the arena of fathers' involvement research. In the case of Chapter 4, it is also possible that the findings may inform policymakers or
provide a platform for future research in this area that can continue to inform public policy. In this concluding chapter, major findings for each of the substantive chapters and conclusions and/or policy recommendations are discussed followed by a discussion of the limitations of the dissertation and a brief foray into key areas for future research.

The results presented in Chapter 3 contribute to the growing father involvement literature by illustrating how father and mother discrepancies in reporting fathers' involvement with their children may affect the results of studies of father involvement. This chapter uncovered many demographic and social factors that predict father-mother discrepancy in reporting on fathers’ involvement. These factors should all be considered when comparing father and mother reports of fathers' involvement. In cases in which only mother reports are available, these factors could provide a basis for adjusting the mother reports to estimate what the father's report would be if it were available.

Chapter 3 clearly shows that both fathers and mothers report that fathers are playing a significant role in spending time with and in being emotionally involved with their young children. The difference between father and mother reports of fathers' involvement with their young children is significant, both statistically and practically. Practically speaking, a 0.6 days per week difference between father and mother reports (Table 3.2, Panel A) for all 11 activities is a 17.6 percent difference in the reported frequency of involvement. Clearly, if fathers are spending 17.6 percent more time with their children than was previously thought, this could have a large impact on the lives of these children and may also impact the findings from studies using only mother reports to examine fathers' involvement in the FFCW data.

Chapter 3 shows that resident fathers have greater levels of disagreement with mothers than nonresident fathers for frequency of involvement, although for emotional involvement the result is reversed. This chapter also shows that relationship quality,
marital status, and whether the mother receives financial support from someone other than the father all prove to be significant predictors of father-mother discordance in reported fathers' involvement. Therefore, three important conclusions can be drawn from this chapter. First, given the importance of fathers in the lives of their children, it is critical that future data collection efforts examining father involvement should not just rely on maternal reports. Fathers, after all, are the ones with first-hand knowledge of their level of involvement. The fathers' reports in the FFCW study data and in similar studies are valuable resources in better understanding the behavior of fathers with their children. Second, future studies should clearly acknowledge the source of the fathers' involvement information and, when only mother reports are used, should note potential sources of bias and validity. Third, when possible, researchers should use information about relationship quality, marital status, father residency, and other factors to carefully scrutinize reports of father's involvement based on who is doing the reporting.

Chapter 4 examines the extent to which child support and welfare policies effect fathers' involvement with their young children. By exploiting state-level variations in public policies using longitudinal data, this chapter examines the impact of public policies over time. Finally, Chapter 4 models fathers' involvement for couples who were unmarried at the time of the child's birth to permit an examination of the impact of policies on father's joint decisions about living arrangements and involvement with the focal child.

In the past decade, federal policies have directly and indirectly aimed at increasing the role and responsibility of fathers in the lives of their non-marital children. Directly, federal marriage promotion policies and increased child support enforcement have placed the role of fathers and noncustodial parents in the spotlight. Indirectly, welfare policies at the federal- and state-level were designed to reduce non-marital births,
time limit welfare benefits, and give states the flexibility to reduce the amount of cash welfare benefits. The results of the multivariate analyses conducted for this dissertation serves to inform the policy debate surrounding the importance public policies in influencing fathers' involvement with their young children.

The results for Chapter 4 show that stronger child support enforcement may be reducing marriage, cohabitation, and fathers' frequency of involvement, although it does increase fathers' material support. Therefore, both child support and welfare policies, with some minor exceptions, are having unintended negative consequences of reducing fathers’ involvement with their young children, through living arrangements and fathers' engagement.

Two important conclusions can be drawn from Chapter 4. First, the role of public policies in shaping fathers' involvement is muted by their individual characteristics and circumstances; however, public policies do influence fathers' involvement with their children. Second, public policies may be operating in conflicting ways to both increase and decrease fathers' involvement with their children. Chapter 4 also finds that some policies, such as the paternity establishment rate, positively impact one type of fathers' involvement (i.e., engagement). However, the same policy negatively affects another type of fathers' involvement (i.e., accessibility).

The results for Chapter 4 are novel given the dearth of research examining the impact of child support and welfare policies on fathers' involvement and must be replicated in future studies to confirm or deny their veracity. That said, one policy implication of these results is, in promoting policies that increase father involvement, one may be required to make tradeoffs between different aspects of fathers' involvement-for example, encouraging material involvement at the cost of discouraging fathers' accessibility through marriage or cohabitation and fathers' engagement through
frequency of involvement. Unfortunately, these results also indicate that there may be negative unintended consequences of policies that are designed to increase the well-being of families in other ways. Although a higher maximum TANF grant is beneficial to families, these results indicate that it may reduce marriages. Clearly, the costs and benefits—both intended and unintended-of policies must be carefully weighed before an argument can be made for eliminating or reducing those policies. Finally, individual characteristics of fathers also have potential policy implications for increasing fathers' involvement. For example, because the involvement of one's biological father effects fathers’ involvement, it is plausible to assume that increases in fathers’ involvement today may bring the benefit of increased father involvement to future generations.

The analysis in Chapter 5 finds that mothers’ re-partnering leads to the child receiving an overall increase, on average, in attention from the mother, social father, and nonresident father relative to a child living in an intact family with a biological mother and father. This chapter also finds that resident social fathers show greater levels of involvement than nonresident biological fathers. And, in fact, in nearly half of the measured daily activities with the focal child, resident biological fathers and resident social fathers are statistically indistinguishable in terms of their reported frequency of involvement, though in the remaining activities resident biological fathers do show a greater frequency of involvement than resident social fathers.

The public policy implications from Chapter 5 are three-fold. First, these results suggest a substantial role for social fathers in their level of involvement in children's lives following a non-marital birth, even at a young age. Second, future research should seek to elucidate the extent to which social fathers' involvement is protective and beneficial to young children. While considering the potential for endogeneity in examining child outcomes, future research should attempt to isolate the impact of social
fathers versus biological fathers on child well-being. Third, policymakers may want to consider the role that public policies have in shaping the lives of families and, in so doing, may need to consider the impact of public policies differently for different ethnic and racial groups.

## DATA LIMITATIONS

Each of the substantive chapters noted the unique limitations presented by the particular analysis and data sample used. However, there are three overarching data limitations that should be noted and discussed in greater detail here: fathers' involvement and public policy measures are limited, sample attrition in the Fragile Families data, and limited generalizability.

First, the analyses in each of the substantive chapters in this dissertation were limited to the measures available in the FFCW study data. For Chapters 3 and 5, father involvement measures are limited to 11 daily activities (or 13 including the two emotional involvement measures) in the 3-year data. This limitation on father involvement measures also applies to Chapter 4, however, we have involvement measures from the 1 -year and 5 -year data as well. In addition, the child support enforcement and welfare reform policy variables in Chapter 4 are also limited. While this limitation is discussed in greater detail in that chapter, it is worth noting here.

Second, as with nearly all longitudinal studies, attrition is a threat to internal validity that must be considered. Attrition is particularly an issue for the FFCW study's father data. Of the mothers who completed the baseline interview, 78.2 percent of fathers also completed interviews. The father response rates continue to decline in the year-1, year-3, and year-5 data. Not surprisingly, response rates are higher among married fathers than among unmarried fathers, a group we are particularly interested in. Although it cannot be measured directly, it seems likely that estimates of fathers’ involvement will
be biased upward since uninvolved fathers are less likely (than involved fathers) to be interviewed over time. While attrition is problematic, and even more so when bias is suspected, the Fragile Families data still present researchers with a uniquely detailed, longitudinal view of predominantly low-income families, and fathers, in particular.

Third, the final external validity threat that should be noted may be termed an interaction with settings. That is, the Fragile Families data are an urban sample. While the weighted data are representative of non-marital births in urban areas with populations greater than 200,000, these data are not representative of married births. This presents some complications since, for much of these analyses, married births were included. In particular, the generalizability of the findings may be impacted since the sample is not uniformly representative of a larger population. The unweighted data were used in the analyses for this dissertation because some of the cities must be omitted from weighted data analyses. The additional sample size from the omitted cities outweighs the value of weighting the data.

## Looking Ahead at Key Research Issues

There are many directions in which future research examining fathers' involvement could build on the research in this dissertation, but only two are highlighted here-child outcomes and mixed methods. Children's wellbeing and health are both areas that are outside of the scope of this dissertation. In many cases, examining child outcomes is difficult due to concerns about endogeneity. That is, fathers' involvement clearly has an impact on child outcomes; however, it is also quite likely that child outcomes affect the extent or degree of a fathers' involvement with his child. This potential for reverse causation makes research in this area complicated; however, there are ways of addressing the concerns about endogeneity. A recent paper by Duncan, Magnuson, and Ludwig (2004) describe the endogeneity problem and child development
outcomes. They recommend using data collection strategies that rely on real or "natural" experiments. Additional options for solving the endogenity problem include using an instrumental variable or lagging the dependent variable. For example, one could attempt to instrument for fathers' involvement, although it may be difficult to find valid instruments. The analysis in Chapter 4 provides many factors that affect fathers' involvement, but most of these factors may also directly influence child health or wellbeing. It might also be possible to use lagged outcomes, although since child health and well-being are likely correlated over time, that approach may not completely solve the endogeneity problem. That said, finding some, potentially imperfect, way to measure the effect of fathers' involvement on child outcomes is an important next step.

Another key direction for future research is using mixed methods to examine fathers' involvement. Using a mixed method approach involves combining qualitative and quantitative methods to examine the same or related research questions. There are numerous benefits to using mixed methods, as noted by Bryman 2006, such as, using qualitative data to illustrate, explain, or validate quantitative findings. Mixed methods are also useful to confirm findings or further explaining a quantitative finding. For example, qualitative analysis could be used to better understand the effects of public policies and how individuals assess information about public policies in their lives.

The Time, Love, Cash, Caring, and Children (TLC3) study is a qualitative study on a subsample of the FFCW study sample. Forty-nine families were sampled from three of the 20 Fragile Families cities-Chicago, Milwaukee, and New York. Couples were interviewed between 2000 and 2005 about topics including parenthood, marriage, childrearing, family structure and relationships, time spent with their child, and many other issues. A recent paper by Gibson-Davis, Edin, and McLanahan (2005) used the TLC3 data to examine why low-income couples are not marrying before or after the birth of
their child. They find that there are three major barriers to marriage: financial concerns, relationship quality, and fear of divorce. These results are echoed in a longer book by Edin and Kefalas (2005). The TLC3 data were released to the public in September 2008. While the TLC3 data did not directly estimate the impact of public policies on fathers' involvement, future qualitative research could be used to further explain some of the quantitative findings in this dissertation.

Table 3.1: Father, Mother, Couple, and Child Demographic Variables by Marital Status: Descriptive Statistics ( $\mathrm{N}=2,058$ )

| Variables | $\begin{gathered} \text { Married } \\ (\%) \\ \hline \end{gathered}$ | Cohabiting (\%) | Other ${ }^{\text {a }}$ <br> (\%) | Total (\%) |
| :---: | :---: | :---: | :---: | :---: |
| Father characteristics |  |  |  |  |
| Education: 0 = less than HS education, $1=H S$ education or greater | 79.4 | 58.0 | 61.9 | 69.9 |
| Ever Incarcerated: $0=$ not ever incarcerated, $1=$ ever incarcerated ${ }^{\text {b }}$ | 14.3 | 35.0 | 40.4 | 24.7 |
| Father residency with child: $0=$ not a resident, $1=$ resident $^{\text {c }}$ | 99.4 | 93.7 | 28.1 | 88.1 |
| Native-born: 0 = foreign-born, 1 = native-born | 76.8 | 82.4 | 93.7 | 80.9 |
| Non-Hispanic White: $0=$ else, $1=$ Non-Hispanic White | 38.9 | 11.7 | 14.4 | 26.5 |
| Non-Hispanic African American: $0=$ else, $1=$ Non-Hispanic African American | 26.7 | 52.1 | 64.1 | 40.2 |
| Mexican American: $0=$ else, $1=$ Mexican American | 17.7 | 18.4 | 9.3 | 17.0 |
| Other Hispanic: $0=$ else, $1=$ Other Hispanic | 11.2 | 15.0 | 7.8 | 12.0 |
| Non-Hispanic Other: $0=$ else, $1=$ Non-Hispanic Other | 5.5 | 2.4 | 4.4 | 4.3 |
| Mother characteristics |  |  |  |  |
| Education: $0=$ less than HS education, $1=$ HS education or greater | 80.0 | 61.2 | 67.8 | 72.1 |
| Native-born: $0=$ foreign-born, $1=$ native-born | 76.7 | 84.2 | 95.6 | 81.7 |
| Mother received financial help/money from anyone other than father since child was born ${ }^{\text {b }}$ | 19.7 | 26.2 | 35.6 | 24.0 |
| Couple characteristics |  |  |  |  |
| Mother-Father relationship: $0=$ Fair/Poor, $1=$ Excellent/VG/Good ${ }^{\text {c }}$ | 97.3 | 90.8 | 68.5 | 91.4 |
| Mother-Father relationship: $0=$ Fair/Poor, $1=$ Excellent/VG/Good $^{\text {b }}$ | 94.5 | 88.5 | 62.6 | 88.3 |
| Number of children with this father: $0=1$ child, $1=2+$ children $^{\text {b }}$ | 70.4 | 56.7 | 45.9 | 62.5 |
| Mother has other children with another father: $0=n o, 1=y e s^{\text {b }}$ | 20.3 | 38.4 | 40.7 | 29.1 |
| Father has other children with another mother: $0=n o, 1=y e s^{\text {c }}$ | 20.0 | 35.3 | 35.9 | 27.3 |
| $N$ | 1,093 | 695 | 270 | 2,058 |

[^13]Table 3.2: Fathers' Frequency of Involvement with their 3-Year-Old: Comparing Father and Mother Reports, the Father-Mother Discrepancy for Resident and Nonresident Fathers, and the Father-Mother Exact Agreement for Resident and Nonresident Fathers ( $\mathrm{N}=1,872$ )

| Mean Frequency of Involvement | Panel A |  |  | Panel B |  |  | Panel C |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Father Report (\# days/wk) | Mother Report (\# days/wk) | Difference (\# days/wk) | Resident Father ${ }^{\text {a }}$ Mother Discrepancy (\# days/wk) | Nonresident Father Mother Discrepancy (\# days/wk) | Difference (\# days/wk) | Resident <br>  <br> Mother <br> Exact Agreement ${ }^{\text {b }}$ <br> (\%) | Nonresident <br> Father \& Mother Exact Agreement (\%) | Difference (\%) |
| All 11 activities | 4.0 | 3.4 | 0.6** | 0.6 | 0.5 | 0.1 | 26.3\% | 20.2\% | 6.1\% |
| Sing songs or nursery rhymes with child | 3.7 | 3.4 | 0.2** | 0.2 | 0.2 | 0.0 | 23.0\% | 22.3\% | 0.8\% |
| Let child help you with simple chores | 4.6 | 3.6 | 0.9** | 1.0 | 0.6 | 0.4 | 25.6\% | 22.8\% | 2.8\% |
| Play imaginary games with child | 4.6 | 3.9 | 0.7** | 0.7 | 0.7 | -0.1 | 24.5\% | 18.7\% | 5.9\% |
| Read stories to child | 3.8 | 3.3 | 0.5** | 0.5 | 0.4 | 0.1 | 23.3\% | 21.8\% | 1.6\% |
| Tell stories to child | 3.6 | 3.3 | 0.4** | 0.4 | 0.3 | 0.1 | 19.2\% | 20.2\% | -1.0\% |
| Play inside with toys with child | 5.0 | 4.3 | 0.7** | 0.7 | 0.6 | 0.1 | 29.4\% | 17.1\% | 12.3\%** |
| Tell child you appreciate something he/she did | 5.8 | 5.5 | 0.3** | 0.3 | 0.4 | -0.2 | 49.0\% | 22.3\% | 26.7\%** |
| Take child to visit relatives | 2.6 | 2.1 | 0.5** | 0.5 | 0.4 | 0.1 | 31.2\% | 24.4\% | 6.9\%** |
| Go to a restaurant w/child | 1.8 | 1.6 | 0.2** | 0.2 | 0.3 | -0.1 | 36.8\% | 23.3\% | 13.5\%** |
| Assist child with eating | 3.4 | 2.3 | 1.1** | 1.2 | 0.5 | 0.6* | 26.7\% | 37.8\% | -11.1\%** |
| Put child to bed | 5.0 | 4.0 | 1.0** | 1.1 | 0.4 | 0.7** | 36.0\% | 23.3\% | 12.7\%** |
| $N$ | 1,872 | 1,872 |  | 1,679 | 193 |  | 1,679 | 193 |  |

${ }^{\text {a}}$ Father residency reported by father. ${ }^{6}$ Exact agreement compares the following categories for fathers and mothers: 7, 6, 5, 4, 3, 2, 1, and 0 days/week. ${ }^{*} p<.05 .{ }^{* *} p<.01$.

Table 3.3: Fathers' Emotional Involvement with their 3-Year-Old: Comparing Father and Mother Reports, the Father-Mother Discrepancy for Resident and Nonresident Fathers, and the Father-Mother Exact Agreement ${ }^{\text {b }}$ for Resident and Nonresident Fathers ( $\mathrm{N}=2,058$ )

| Mean <br> Frequency of Involvement | Panel $A$ |  |  | Panel B |  |  | Panel C |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Father <br> Report (\# days/wk) | Mother <br> Report (\# days/wk) | Difference <br> (\# days/wk) | Resident Father ${ }^{\text {a }}$ Mother Discrepancy (\# days/wk) | Nonresident Father Mother Discrepancy (\# days/wk) | Difference <br> (\# days/wk) | Resident <br> Father ${ }^{\text {a }}$ \& Mother Exact Agreement (\%) | Nonresident Father \& Mother Exact Agreement (\%) | Difference (\%) |
| Both activities | 6.6 | 6.4 | 0.2** | 0.1 | 0.7 | -0.5** | 80.2\% | 36.3\% | 43.9\%** |
| Father hugs or shows physical affection with child | 6.6 | 6.4 | 0.2** | 0.2 | 0.6 | $-0.4 * *$ | 84.9\% | 37.1\% | 47.8\%** |
| Father tells child that he loves him/her | 6.6 | 6.4 | 0.2** | 0.1 | 0.7 | -0.6** | 85.3\% | 47.8\% | 37.6\%** |
| $N$ | 2,058 | 2,058 |  | 1,813 | 245 |  | 1,813 | 245 |  |

[^14]Table 3.4: Predicting the Discrepancy between Father and Mother Reports of Father’s Frequency of Involvement ( $\mathrm{N}=1,872$ )

| Variable | $B$ | SE B | $\beta$ |
| :---: | :---: | :---: | :---: |
| Father characteristics |  |  |  |
| Age | 0.00 | 0.01 | 0.02 |
| Education: $0=$ less than HS education, $1=H S$ education or greater | -0.02 | 0.09 | -0.01 |
| Ever Incarcerated: $0=$ not ever incarcerated, $1=$ ever incarcerated $^{\text {a }}$ | -0.01 | 0.09 | -0.00 |
| Father residency with child: $0=$ not a resident, $1=$ resident $^{\text {c }}$ | 0.70 | 0.17 | 0.13** |
| Native-born: $0=$ foreign-born, 1 = native-born | -0.18 | 0.14 | -0.04 |
| Non-Hispanic African American: $0=$ else, $1=$ Non-Hispanic African American | 0.08 | 0.10 | 0.02 |
| Mexican American: $0=$ else, $1=$ Mexican American | 0.05 | 0.13 | 0.01 |
| Other Hispanic: $0=$ else, $1=$ Other Hispanic | -0.10 | 0.13 | -0.02 |
| Non-Hispanic Other: $0=$ else, $1=$ Non-Hispanic Other | 0.18 | 0.20 | 0.02 |
| Mother characteristics |  |  |  |
| Education: $0=$ less than HS education, $1=$ HS education or greater | 0.09 | 0.09 | 0.02 |
| Native-born: 0 = foreign-born, $1=$ native-born | 0.15 | 0.14 | 0.04 |
| Mother received financial help/money from anyone except father since child was born ${ }^{\text {a }}$ | 0.26 | 0.09 | 0.07** |
| Couple characteristics |  |  |  |
| Mother-Father relationship: $0=$ Fair/Poor, $1=$ Excellent $/ V G /$ Good $^{\text {b }}$ | 0.32 | 0.14 | 0.05* |
|  | -1.25 | 0.13 | -0.23** |
| Married: $0=$ Not married, $1=$ Married | -0.45 | 0.18 | -0.14* |
| Cohabiting: $0=$ Not cohabiting, $1=$ Cohabiting | -0.29 | 0.17 | -0.08 |
| Number of children with this father: $0=1$ child, $1=2+$ children $^{\text {a }}$ | 0.03 | 0.08 | 0.01 |
| Mother has other children with another father: $0=n o, 1=y e s^{\text {b }}$ | 0.01 | 0.09 | 0.00 |
| Father has other children with another mother: $0=n o, 1=y e s^{\text {b }}$ | 0.14 | 0.09 | 0.04 |
| Child characteristics |  |  |  |
| Child's age in months at the time of mother's 3-year interview | -0.02 | 0.02 | -0.03 |
| Age difference of child in months at the time of father's 3-year interview | 0.06 | 0.02 | 0.06* |
| $R^{2}$ |  | . 08 |  |

Note: ${ }^{\text {a }}$ Mother reported. ${ }^{\text {b }}$ Father reported.
*p < .05. ${ }^{* *} p<.01$.

Table 3.5: Predicting the Discrepancy between Father and Mother Reports of Father’s Emotional Involvement ( $\mathrm{N}=2,058$ )

| Variable | B | $S E B$ | $\beta$ |
| :---: | :---: | :---: | :---: |
| Father characteristics |  |  |  |
| Age | -0.00 | 0.00 | -0.00 |
| Education: $0=$ less than HS education, $1=$ HS education or greater | -0.03 | 0.08 | -0.01 |
| Ever Incarcerated: $0=$ not ever incarcerated, $1=$ ever incarcerated $^{\text {a }}$ | -0.02 | 0.08 | -0.00 |
| Father residency with child: $0=$ not a resident, $1=$ resident $^{\text {b }}$ | 0.28 | 0.13 | 0.06* |
| Native-born: $0=$ foreign-born, $1=$ native-born | -0.03 | 0.12 | -0.01 |
| Non-Hispanic African American: $0=$ else, $1=$ Non-Hispanic African American | 0.13 | 0.08 | 0.05 |
| Mexican American: $0=$ else, $1=$ Mexican American | 0.05 | 0.11 | 0.01 |
| Other Hispanic: $0=$ else, $1=$ Other Hispanic | 0.03 | 0.11 | 0.01 |
| Non-Hispanic Other: $0=$ else, $1=$ Non-Hispanic Other | 0.05 | 0.16 | 0.01 |
| Mother characteristics |  |  |  |
| Education: $0=$ less than HS education, $1=$ HS education or greater | 0.10 | 0.08 | 0.03 |
| Native-born: 0 = foreign-born, $1=$ native-born | 0.05 | 0.12 | 0.01 |
| Mother received financial help/money from anyone except father since child was born ${ }^{\text {a }}$ | 0.06 | 0.07 | 0.02 |
| Couple characteristics |  |  |  |
| Mother-Father relationship: $0=$ Fair/Poor, $1=$ Excellent/VG/Good ${ }^{\text {b }}$ | 0.15 | 0.11 | 0.03 |
|  | -1.06 | 0.10 | $-0.24 * *$ |
| Married: $0=$ Not married, $1=$ Married | -0.71 | 0.14 | -0.25** |
| Cohabiting: $0=$ Not cohabiting, $1=$ Cohabiting | -0.62 | 0.13 | -0.21 ** |
| Number of children with this father: $0=1$ child, $1=2+$ children $^{\text {a }}$ | -0.07 | 0.06 | -0.02 |
| Mother has other children with another father: $0=n o, 1=y e s^{\text {b }}$ | 0.10 | 0.07 | 0.03 |
| Father has other children with another mother: $0=n o, 1=y e s^{\text {b }}$ | -0.01 | 0.08 | -0.00 |
| Child characteristics |  |  |  |
| Child's age in months at the time of mother's 3-year interview | -0.02 | 0.01 | -0.03 |
| Age difference of child in months at the time of father's 3-year interview | 0.00 | 0.02 | 0.00 |
| $R^{2}$ |  | . 10 |  |

Note: ${ }^{\text {a }}$ Mother reported. ${ }^{\text {b }}$ Father reported.
${ }^{*} p<.05 .{ }^{* *} p<.01$.

Table 4.1: Unweighted Descriptive Statistics for the Dependent Variables: Fathers’ Involvement at Year-1, Year-3, and Year-5

|  | Year-1 |  | Year-3 |  | Year-5 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Variables | Mean | $S D$ | Mean | $S D$ | Mean | $S D$ |
| Living Arrangements |  |  |  |  |  |  |
| Married | 0.13 | 0.34 | 0.21 | 0.41 | 0.24 | 0.43 |
| Cohabiting | 0.50 | 0.50 | 0.41 | 0.49 | 0.27 | 0.45 |
| Separate (i.e., separated, divorced, friends, no relationship) | 0.37 | 0.48 | 0.38 | 0.49 | 0.49 | 0.50 |
| N |  |  |  |  |  |  |
| Material Support |  |  |  |  |  |  |
| Resident father | 0.61 | 0.49 | - | - | - | - |
| Formal support agreement | 0.15 | 0.36 | - | - | - | - |
| Informal support agreement | 0.16 | 0.37 | - | - | - | - |
| No support agreement | 0.08 | 0.27 | - | - | - | - |
| N |  |  |  |  |  |  |
| Frequency of Father Involvement in Various Activities (days per week) |  |  |  |  |  |  |
| Overall Average | 4.4 | 1.6 | 4.2 | 1.4 | 3.7 | 1.5 |
| Sing songs or nursery rhymes to child? | 4.2 | 2.6 | 3.5 | 2.3 | 2.9 | 2.2 |
| Read stories to child? | 3.0 | 2.5 | 3.5 | 2.4 | 2.9 | 2.1 |
| Tell stories to child? | 3.1 | 2.6 | 3.5 | 2.5 | 3.2 | 2.3 |
| Play inside w/toys such as blocks or legos w/child? | 5.3 | 2.3 | 4.9 | 2.3 | 4.1 | 2.4 |
| Take child to visit relatives? | 2.9 | 2.2 | 3.0 | 2.2 |  |  |
| Hug or show physical affection to child? | 6.2 | 1.7 | 6.2 | 1.7 |  |  |
| Put child to bed? | 5.0 | 2.4 | 4.8 | 2.5 |  |  |
| Peek-a-boo or Gotcha w/child? | 5.3 | 2.2 |  |  |  |  |
| Tell child that you love him/her? |  |  | 6.4 | 1.4 |  |  |
| Let child help you with simple chores? |  |  | 4.3 | 2.6 |  |  |
| Play imaginary games with him/her? |  |  | 4.4 | 2.5 |  |  |
| Tell child you appreciate something he/she did? |  |  | 5.6 | 2.0 |  |  |
| Go to a restaurant/out to eat with him/her? |  |  | 2.0 | 1.4 |  |  |
| Assist child with eating? |  |  | 3.0 | 3.0 |  |  |
| Tell child you appreciate something he/she did? |  |  |  |  | 5.5 | 2.0 |
| Play outside in yard/park/playground with child? |  |  |  |  | 3.5 | 2.1 |
| Take child on outing or special activity/event? |  |  |  |  | 2.6 | 1.8 |
| Watch TV or video together? |  |  |  |  | 4.7 | 2.3 |
| N |  |  |  |  |  |  |

Source: Fragile Families and Child Wellbeing Study, Year-1, Year-3, and Year-5.

Table 4.2: Unweighted Descriptive Statistics for the Independent Variables at Year-1 ( $\mathrm{N}=$ $1,565)$

| Variables | Mean | $S D$ | Min | Max |
| :---: | :---: | :---: | :---: | :---: |
| State-level Public Policy Variables |  |  |  |  |
| Child Support Enforcement Variables |  |  |  |  |
| Child Support Enforcement collection rate ${ }^{1}$ | 6.03 | 1.16 | 3.62 | 7.85 |
| Paternity establishment rate ${ }^{1}$ | 7.07 | 1.16 | 3.13 | 9.78 |
| Welfare Reform Variables |  |  |  |  |
| Family cap implementation: 1=State has a family cap | 0.52 | 0.50 | 0.00 | 1.00 |
| TANF lifetime time limit: $1=60$-month time limit | 0.85 | 0.35 | 0.00 | 1.00 |
| Maximum TANF benefits (\$100s) | \$4.73 | \$1.66 | \$1.94 | \$7.34 |
| Individual-level Variables |  |  |  |  |
| Father characteristics |  |  |  |  |
| Age | 27.36 | 6.73 | 17.00 | 66.00 |
| Education: 1 = High school education or greater | 0.63 | 0.48 | 0.00 | 1.00 |
| Ever Incarcerated: $1=$ Ever incarcerated ${ }^{2}$ | 0.35 | 0.48 | 0.00 | 1.00 |
| Current Incarceration: $1=$ Current incarceration ${ }^{2}$ | 0.04 | 0.20 | 0.00 | 1.00 |
| Nativity: 1 = Native-born | 0.88 | 0.33 | 0.00 | 1.00 |
| Number of father's other biological children (excluding the focal child) | 1.03 | 1.39 | 0.00 | 12.00 |
| How involved in raising you was your biological father?: 1 = Very involved | 0.36 | 0.48 | 0.00 | 1.00 |
| Was there another man who was like a father to you growing up?: 1 = yes | 0.44 | 0.50 | 0.00 | 1.00 |
| Non-Hispanic White: 1 = Non-Hispanic White | 0.13 | 0.34 | 0 | 1 |
| Non-Hispanic African American: 1 = Non-Hispanic African American | 0.55 | 0.50 | 0 | 1 |
| Hispanic: 1 = Hispanic | 0.28 | 0.45 | 0 | 1 |
| Non-Hispanic Other: 1 = Non-Hispanic Other | 0.03 | 0.18 | 0 | 1 |
| Mother and child characteristics |  |  |  |  |
| Age | 24.90 | 5.43 | 15.00 | 44.00 |
| Education: 1 = High school education or greater | 0.68 | 0.47 | 0.00 | 1.00 |
| Nativity: 1 = Native-born | 0.90 | 0.31 | 0.00 | 1.00 |
| Mother received financial help or money from anyone other than the father within the past 12 months ${ }^{3}$ | 0.43 | 0.50 | 0.00 | 1.00 |
| Child's age in months (at time of father's survey) ${ }^{5}$ | 3.82 | 3.93 | -3.00 | 20.00 |
| Child's gender: 1 = Male | 0.51 | 0.50 | 0.00 | 1.00 |
| Mother-father relationship: 1=Excellent/very good/good ${ }^{3}$ | 0.78 | 0.42 | 0.00 | 1.00 |
| Mother-father relationship: 1= Excellent/very good/good ${ }^{4}$ | 0.83 | 0.38 | 0.00 | 1.00 |

Source: Fragile Families and Child Wellbeing Study, Year-1.
${ }^{1}$ The child support enforcement variable and the paternity establishment variable are defined to be ten times their actual rates to ease interpretation of the multivariate coefficients. For example, the mean of 6.03 translates to a mean child support collection rate of $0.603 ;{ }^{2}$ Reported by both mother and father at the time of their interview; ${ }^{3}$ Mother reported; ${ }^{4}$ Father reported; ${ }^{5}$ Child age is centered around 12 months; the minimum child's age in the analytic sample is 9 months.

Table 4.3: Predicting the Effect of State-level Policies on the Odds of Various Living Arrangements (e.g., Married, Cohabiting, and Staying Separate) Over Time ( $\mathrm{N}=4,752$ )

| Variable | Model 1 |  | Model 2 |  | Model 3 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Married | Cohabiting | Married | Cohabiting | Married | Cohabiting |
| State-level Child Support Enforcement Variables |  |  |  |  |  |  |
| Child Support Enforcement collection rate | 0.435** | 0.717* |  |  | 0.536** | 0.756** |
|  | (0.080) | (0.120) |  |  | (0.062) | (0.076) |
| Paternity establishment rate | 0.793* | 0.565** |  |  | 1.001 | 0.890+ |
|  | (0.086) | (0.063) |  |  | (0.072) | (0.056) |
| State-level Welfare Reform Variables |  |  |  |  |  |  |
| Family cap: 1=state has a family cap | 0.390* | 0.633 |  |  | 0.594** | 0.810 |
|  | (0.183) | (0.236) |  |  | (0.098) | (0.151) |
| 60-Month TANF lifetime time limit: 1=60-month time limit | 1.096 | 0.883 |  |  | 1.331* | 1.154 |
|  | (0.336) | (0.273) |  |  | (0.182) | (0.194) |
| Maximum TANF benefits (\$100s) | $1.116$ | 1.278** |  |  | 0.936+ | 1.043 |
|  | (0.109) | (0.109) |  |  | (0.033) | (0.048) |
| Father characteristics |  |  |  |  |  |  |
| Age |  |  | 1.020 | 1.011 | 1.019 | 1.010 |
|  |  |  | (0.015) | (0.012) | (0.013) | (0.012) |
| Education: 1 = High school education or greater |  |  | 1.216 | 0.933 | 1.206 | 0.916 |
|  |  |  | (0.247) | (0.179) | (0.260) | (0.181) |
| Ever Incarcerated: $1=$ Ever incarcerated ${ }^{1}$ |  |  | 0.639* | 0.693* | 0.607** | 0.684* |
|  |  |  | (0.112) | (0.124) | (0.099) | (0.124) |
| Current Incarceration: 1 = Currently incarcerated ${ }^{1}$ |  |  | 0.115** | 0.078** | 0.116** | 0.077** |
|  |  |  | (0.046) | (0.028) | (0.049) | (0.029) |
| Nativity: 1 = Native-born |  |  | 0.746 | 0.593+ | 0.686 | 0.606+ |
|  |  |  | (0.317) | (0.164) | (0.276) | (0.166) |
| \# of father's other bio children (excluding the focal child) |  |  | 1.082 | 1.119+ | 1.085 | 1.121+ |
|  |  |  | (0.065) | (0.067) | (0.069) | (0.070) |

Table 4.3: Predicting the Effect of State-level Policies on the Odds of Various Living Arrangements (e.g., Married, Cohabiting, and Staying Separate) Over Time ( $\mathrm{N}=4,752$ ) (continued)


Table 4.4: Predicting the Effect of State-level Policies on the Odds of Fathers’ Material Support (e.g., Resident Father, Formal Support Agreement, Informal Support Agreement, No Support Agreement) at Year-1 ( $\mathrm{N}=1,512$ )

| Variable | Model 1 |  |  | Model 2 |  |  | Model 3 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Resident Father | Formal Support | Informal Support | Resident Father | Formal Support | Informal Support | Resident Father | Formal Support | Informal Support |
| State-level Child Support Enforcement Variables |  |  |  |  |  |  |  |  |  |
| Child Support Enforcement collection rate | $\begin{array}{r} 0.889 \\ (0.132) \end{array}$ | $\begin{array}{r} 1.302 \\ (0.308) \end{array}$ | $\begin{array}{r} 1.131 \\ (0.142) \end{array}$ |  |  |  | $\begin{array}{r} 1.037 \\ (0.160) \end{array}$ | $\begin{aligned} & 1.493+ \\ & (0.345) \end{aligned}$ | $\begin{aligned} & 1.259+ \\ & (0.154) \end{aligned}$ |
| Paternity establishment rate | $\begin{array}{r} 0.866 \\ (0.088) \end{array}$ | $\begin{array}{r} 1.221 \\ (0.227) \end{array}$ | $\begin{array}{r} 1.002 \\ (0.087) \end{array}$ |  |  |  | $\begin{aligned} & 0.928 \\ & 0.076 \end{aligned}$ | $\begin{array}{r} 1.046 \\ (0.143) \end{array}$ | $\begin{array}{r} 0.961 \\ (0.235) \end{array}$ |
| State-level Welfare Reform Variables |  |  |  |  |  |  |  |  |  |
| Family cap: 1=state has a family cap | $\begin{array}{r} 0.720 \\ (0.227) \end{array}$ | $\begin{array}{r} 0.886 \\ (0.423) \end{array}$ | $\begin{array}{r} 0.844 \\ (0.197) \end{array}$ |  |  |  | $\begin{array}{r} 1.178 \\ (0.434) \end{array}$ | $\begin{array}{r} 1.038 \\ (0.511) \end{array}$ | $\begin{array}{r} 0.971 \\ (0.235) \end{array}$ |
| 60-Mo TANF lifetime time limit: $1=60-$ mo time limit | $\begin{array}{r} 1.426 \\ (0.437) \end{array}$ | $\begin{array}{r} 3.011 \\ (2.114) \end{array}$ | $\begin{array}{r} 1.128 \\ (0.292) \end{array}$ |  |  |  | $\begin{array}{r} 1.680 \\ (0.538) \end{array}$ | $\begin{aligned} & 3.503^{*} \\ & \text { (2.019) } \end{aligned}$ | $\begin{array}{r} 1.237 \\ (0.360) \end{array}$ |
| Maximum TANF benefits (\$100s) | $\begin{array}{r} 0.975 \\ (0.052) \end{array}$ | $\begin{array}{r} 0.919 \\ (0.074) \end{array}$ | $\begin{array}{r} 0.964 \\ (0.060) \end{array}$ |  |  |  | $\begin{array}{r} 0.889 \\ (0.076) \end{array}$ | $\begin{array}{r} 0.886 \\ (0.089) \end{array}$ | $\begin{array}{r} 0.931 \\ (0.070) \end{array}$ |
| Father characteristics |  |  |  |  |  |  |  |  |  |
| Age |  |  |  | $\begin{array}{r} 1.027 \\ (0.030) \end{array}$ | $\begin{array}{r} 1.017 \\ (0.031) \end{array}$ | $\begin{array}{r} 0.988 \\ (0.023) \end{array}$ | $\begin{array}{r} 1.028 \\ (0.031) \end{array}$ | $\begin{array}{r} 1.018 \\ (0.034) \end{array}$ | $\begin{array}{r} 0.989 \\ (0.024) \end{array}$ |
| Education: 1 = High school education or greater |  |  |  | $\begin{array}{r} 1.195 \\ (0.223) \end{array}$ | $\begin{array}{r} 1.172 \\ (0.215) \end{array}$ | $\begin{aligned} & 1.588^{*} \\ & (0.311) \end{aligned}$ | $\begin{array}{r} 1.223 \\ (0.230) \end{array}$ | $\begin{array}{r} 1.181 \\ (0.232) \end{array}$ | $\begin{aligned} & 1.593^{*} \\ & (0.320) \end{aligned}$ |
| Ever Incarcerated: $1=$ Ever incarcerated ${ }^{1}$ |  |  |  | $\begin{array}{r} 1.243 \\ (0.285) \end{array}$ | $\begin{array}{r} 1.364 \\ (0.362) \end{array}$ | $\begin{array}{r} 1.037 \\ (0.281) \end{array}$ | $\begin{array}{r} 1.295 \\ (0.301) \end{array}$ | $\begin{array}{r} 1.456 \\ (0.381) \end{array}$ | $\begin{array}{r} 1.063 \\ (0.285) \end{array}$ |
| Current Incarceration: $1=$ Currently incarcerated ${ }^{1}$ |  |  |  | $\begin{gathered} 0.091 * * \\ (0.048) \end{gathered}$ | $\begin{gathered} 0.333^{* *} \\ (0.112) \end{gathered}$ | $\begin{aligned} & 0.527 * \\ & (0.162) \end{aligned}$ | $\begin{gathered} 0.084^{* *} \\ (0.044) \end{gathered}$ | $\begin{array}{r} 0.334^{* *} \\ (0.116) \end{array}$ | $\begin{aligned} & 0.533+ \\ & (0.166) \end{aligned}$ |

Table 4.4: Predicting the Effect of State-level Policies on the Odds of Fathers' Material Support (e.g., Resident Father, Formal Support Agreement, Informal Support Agreement, No Support Agreement) at Year-1 ( $\mathrm{N}=1,512$ ) (continued)

| Variable | Model 1 |  |  | Model 2 |  |  | Model 3 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Resident Father | Formal Support | Informal Support | Resident Father | Formal Support | Informal Support | Resident Father | Formal <br> Support | Informal Support |
| Nativity: 1 = Native-born |  |  |  | $\begin{array}{r} 1.514 \\ (0.687) \end{array}$ | $\begin{array}{r} 1.514 \\ (0.706) \end{array}$ | $\begin{aligned} & \text { 2.097* } \\ & (0.642) \end{aligned}$ | $\begin{array}{r} 1.452 \\ (0.682) \end{array}$ | $\begin{array}{r} 1.572 \\ (0.839) \end{array}$ | $\begin{aligned} & \text { 2.071* } \\ & (0.695) \end{aligned}$ |
| \# of father's other bio children (excluding the focal child) |  |  |  | $\begin{array}{r} 0.735 \\ (0.181) \end{array}$ | $\begin{array}{r} 0.832 \\ (0.215) \end{array}$ | $\begin{array}{r} 1.136 \\ (0.268) \end{array}$ | $\begin{array}{r} 0.725 \\ (0.178) \end{array}$ | $\begin{array}{r} 0.910 \\ (0.219) \end{array}$ | $\begin{array}{r} 1.160 \\ (0.260) \end{array}$ |
| Was bio father involved in raising you?: $1=$ Very involved |  |  |  | $\begin{array}{r} 0.837 \\ (0.166) \end{array}$ | $\begin{array}{r} 0.862 \\ (0.222) \end{array}$ | $\begin{array}{r} 0.971 \\ (0.243) \end{array}$ | $\begin{array}{r} 0.859 \\ (0.172) \end{array}$ | $\begin{array}{r} 0.966 \\ (0.251) \end{array}$ | $\begin{array}{r} 0.999 \\ (0.248) \end{array}$ |
| Another man like a father to you growing up?: 1 = Yes |  |  |  | $\begin{array}{r} 0.953 \\ (0.078) \end{array}$ | $\begin{array}{r} 0.896 \\ (0.098) \end{array}$ | $\begin{array}{r} 1.066 \\ (0.082) \end{array}$ | $\begin{array}{r} 0.951 \\ (0.077) \end{array}$ | $\begin{array}{r} 0.877 \\ (0.089) \end{array}$ | $\begin{array}{r} 1.060 \\ (0.079) \end{array}$ |
| Non-Hispanic African American: $1=$ NH African American |  |  |  | $\begin{aligned} & 0.493^{*} \\ & (0.156) \end{aligned}$ | $\begin{array}{r} 1.141 \\ (0.481) \end{array}$ | $\begin{array}{r} 1.147 \\ (0.691) \end{array}$ | $\begin{aligned} & 0.476 * \\ & (0.157) \end{aligned}$ | $\begin{array}{r} 1.032 \\ (0.401) \end{array}$ |  |
| Hispanic: 1 = Hispanic |  |  |  | $\begin{array}{r} 1.077 \\ (0.463) \end{array}$ | $\begin{array}{r} 0.919 \\ (0.541) \end{array}$ | $\begin{array}{r} 1.175 \\ (0.666) \end{array}$ | $\begin{array}{r} 0.939 \\ (0.389) \end{array}$ | $\begin{array}{r} 0.687 \\ (0.300) \end{array}$ | $\begin{array}{r} 1.009 \\ (0.517) \end{array}$ |
| Non-Hispanic Other: 1 = Non-Hispanic Other |  |  |  | $\begin{array}{r} 0.698 \\ (0.563) \end{array}$ | $\begin{array}{r} 2.188 \\ (2.040) \end{array}$ | $\begin{array}{r} 2.239 \\ (2.052) \end{array}$ | $\begin{array}{r} 0.793 \\ (0.691) \end{array}$ | $\begin{array}{r} 2.991 \\ (3.204) \end{array}$ | $\begin{array}{r} 2.555 \\ (2.488) \end{array}$ |
| Mother and child characteristics |  |  |  |  |  |  |  |  |  |
| Age |  |  |  | $\begin{array}{r} 1.010 \\ (0.039) \end{array}$ | $\begin{array}{r} 1.005 \\ (0.032) \end{array}$ | $\begin{array}{r} 1.025 \\ (0.032) \end{array}$ | $\begin{array}{r} 1.011 \\ (0.039) \end{array}$ | $\begin{array}{r} 0.998 \\ (0.034) \end{array}$ | $\begin{array}{r} 1.022 \\ (0.033) \end{array}$ |

Table 4.4: Predicting the Effect of State-level Policies on the Odds of Fathers' Material Support (e.g., Resident Father, Formal Support Agreement, Informal Support Agreement, No Support Agreement) at Year-1 ( $\mathrm{N}=1,512$ ) (continued)

| Variable | Model 1 |  |  | Model 2 |  |  | Model 3 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Resident Father | Formal Support | Informal Support | Resident Father | Formal Support | Informal Support | Resident <br> Father | Formal Support | Informal Support |
| Education: 1 = High school education or greater |  |  |  | $\begin{aligned} & 1.550+ \\ & (0.334) \end{aligned}$ | 1.109 $(0.343)$ | $\begin{array}{r} 1.018 \\ (0.275) \end{array}$ | $\begin{aligned} & 1.497+ \\ & (0.342) \end{aligned}$ | 1.094 $(0.335)$ | 1.010 $(0.278)$ |
| Mother's nativity: 1 = Native-born |  |  |  | $\begin{array}{r} 0.728 \\ (0.483) \end{array}$ | $\begin{array}{r} 3.130 \\ (2.292) \end{array}$ | $\begin{array}{r} 0.894 \\ (0.733) \end{array}$ | $\begin{array}{r} 0.652 \\ (0.425) \end{array}$ | $\begin{array}{r} 2.393 \\ (1.591) \end{array}$ | $\begin{array}{r} 0.768 \\ (0.596) \end{array}$ |
| Mother received financial help or money from anyone other than the father within the past 12 months ${ }^{2}$ |  |  |  | 0.472** | 0.712 | 0.855 | 0.455** | 0.696 | 0.837 |
|  |  |  |  | (0.094) | (0.160) | (0.175) | (0.088) | (0.168) | (0.175) |
| Child's age in months (at time of father's survey) |  |  |  | 0.936* | 0.994 | 0.982 | 0.929* | 0.968 | 0.973 |
|  |  |  |  | (0.027) | (0.034) | (0.031) | (0.031) | (0.040) | (0.038) |
| Child's gender: 1 = Male |  |  |  | 0.933 | 1.005 | 1.126 | 0.908 | 0.989 | 1.111 |
|  |  |  |  | (0.260) | (0.300) | (0.311) | (0.256) | (0.298) | (0.307) |
| Mother-father relationship: 1= Excellent/very good/good ${ }^{2}$ |  |  |  | 2.009+ | $0.553+$ | $0.541^{*}$ | 2.019+ | $0.520+$ | $0.532 * *$ |
|  |  |  |  | (0.715) | (0.176) | (0.124) | (0.689) | (0.166) | (0.118) |
| Mother-father relationship: 1= Excellent/very good/good ${ }^{3}$ |  |  |  | 6.399** | 1.375 | 1.478 | 6.431** | 1.384 | 1.480 |
|  |  |  |  | (1.488) | (0.291) | (0.354) | (1.507) | (0.268) | (0.341) |
| Constant | 43.764** | 0.053 | 1.165 | 2.036 | 0.402 | 0.880 | 3.904 | 0.034* | 0.522 |
|  | (34.187) | (0.093) | (0.943) | (2.195) | (0.552) | (1.000) | (4.974) | (0.046) | (0.549) |
| Notes: Standard errors in parentheses. $+p<0.10$, * $p<0.05,{ }^{* *} p<0.01$ |  |  |  |  |  |  |  |  |  |

Table 4.5: Predicting the Effect of State-level Policies on Fathers' Frequency of Involvement with His Young Child Over Time ( $\mathrm{N}=4,454$ )

| Variable | Model 1 | Model 2 | Model 3 |
| :---: | :---: | :---: | :---: |
| State-level Child Support Enforcement Variables |  |  |  |
| Child Support Enforcement collection rate | $\begin{gathered} -0.078 * \\ (0.036) \end{gathered}$ |  | $\begin{array}{r} -0.141^{* *} \\ (0.035) \end{array}$ |
| Paternity establishment rate | $\begin{array}{r} - \\ 0.160^{* *} \\ (0.024) \end{array}$ |  | $\begin{aligned} & 0.054^{*} \\ & (0.028) \end{aligned}$ |
| State-level Welfare Reform Variables |  |  |  |
| Family cap: 1=state has a family cap | $\begin{gathered} -0.181^{*} \\ (0.071) \end{gathered}$ |  | $\begin{array}{r} -0.181^{* *} \\ (0.069) \end{array}$ |
| 60-Month TANF lifetime time limit: 1=60-month time limit | $\begin{array}{r} -0.130 \\ (0.092) \end{array}$ |  | $\begin{array}{r} 0.074 \\ (0.087) \end{array}$ |
| Maximum TANF benefits (\$100s) | $\begin{gathered} 0.045^{*} * \\ (0.017) \end{gathered}$ |  | $\begin{gathered} -0.013 \\ (0.018) \end{gathered}$ |
| Father characteristics |  |  |  |
| Age |  | $\begin{gathered} -0.009+ \\ (0.006) \end{gathered}$ | $\begin{gathered} -0.010+ \\ (0.006) \end{gathered}$ |
| Education: 1 = High school education or greater |  | $\begin{array}{r} 0.050 \\ (0.059) \end{array}$ | $\begin{array}{r} 0.044 \\ (0.059) \end{array}$ |
| Ever Incarcerated: $1=$ Ever incarcerated $^{1}$ |  | $\begin{aligned} & (0.067) \\ & (0.053) \end{aligned}$ | $\begin{aligned} & -0.075 \\ & (0.053) \end{aligned}$ |
| Current Incarceration: 1 = Currently incarcerated ${ }^{1}$ |  | $\begin{array}{r} -0.683^{* *} \\ (0.115) \end{array}$ | $\begin{array}{r} -0.673 * * \\ (0.115) \end{array}$ |
| Nativity: 1 = Native-born |  | $\begin{array}{r} 0.297 * * \\ (0.114) \end{array}$ | $\begin{aligned} & 0.276 * \\ & (0.115) \end{aligned}$ |
| \# of father's other bio children (excluding the focal child) |  | $\begin{gathered} -0.008 \\ (0.021) \end{gathered}$ | $\begin{gathered} -0.007 \\ (0.021) \end{gathered}$ |
| How involved in raising you was your biological father?: $1=$ Very involved |  |  | 0.112+ (0.058) |
| Was there another man who was like a father to you growing up?: $1=Y e s$ |  | $\begin{array}{r} 0.146 * * \\ (0.056) \end{array}$ | $\begin{array}{r} 0.147 * * \\ (0.056) \end{array}$ |
| Non-Hispanic African American: 1 = Non-Hispanic African American |  | $\begin{gathered} -0.152+ \\ (0.083) \end{gathered}$ | $\begin{gathered} -0.129 \\ (0.084) \end{gathered}$ |
| Hispanic: 1 = Hispanic |  | (0.042) | -0.079 |
|  |  | -0.094 | -0.096 |
| Non-Hispanic Other: 1 = Non-Hispanic Other |  | (0.007) | -0.024 |
|  |  | (0.162) | -0.163 |

Table 4.5: Predicting the Effect of State-level Policies on Fathers' Frequency of Involvement with His Young Child Over Time ( $\mathrm{N}=4,454$ ) (continued)

| Variable | Model 1 | Model 2 | Model 3 |
| :---: | :---: | :---: | :---: |
| Mother and child characteristics |  |  |  |
| Age |  | 0.003 | 0.003 |
|  |  | (0.007) | (0.007) |
| Education: 1 = High school education or greater |  | -0.002 | 0.001 |
|  |  | (0.061) | (0.060) |
| Mother's nativity: 1 = Native-born |  | -0.125 | -0.110 |
|  |  | (0.117) | (0.119) |
| Mother received financial help or money from anyone other than the father within the past 12 months ${ }^{2}$ |  | -0.041 | -0.042 |
|  |  | (0.045) | (0.045) |
| Child's age in months (at time of father's survey) |  | -0.015** | -0.016** |
|  |  | (0.001) | $(0.001)$ |
| Child's gender: 1 = Male |  | 0.064 | 0.059 |
|  |  | (0.053) | (0.053) |
| Mother-father relationship: 1=Excellent/very good/good ${ }^{2}$ |  | 0.316** | 0.314** |
|  |  | (0.051) | (0.051) |
| Mother-father relationship: 1= Excellent/very good/good ${ }^{3}$ |  | 0.650** | 0.644** |
|  |  | (0.057) | (0.057) |
| Constant | 5.727** | 3.702** | 4.276** |
|  | (0.235) | (0.207) | (0.308) |
| Variance of Slope | 0.0004 | 0.0002 | 0.0002 |
| Variance of Intercept | 1.399 | 0.966 | 0.965 |
| Covariance (agemos, constant) | -0.013 | -0.005 | -0.005 |
| Log-Likelihood | -7883.32 | -7650.47 | -7641.97 |

Notes: Standard errors in parentheses. $+p<0.10$, * $p<0.05$, $* * p<0.01$
${ }^{1}$ Reported by both mother and father at the time of their interview; ${ }^{2}$ Mother reported; ${ }^{3}$ Father reported.

Table 5.1: Biological Father's, Mother's, and Resident Social Father's Mean Frequency of Involvement With Their 3-Year-Old in 13 Activities

| Variables | Mothers ${ }^{\text {a }}$ | Biological Nonresident | Fathers ${ }^{\text {b }}$ Resident | Resident Social Fathers ${ }^{\text {a }}$ | Resident Bio Father Resident Social Father |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All 13 Activities | 5.0 | 3.4 | 4.5 | 4.0 | 0.5 | ** |
| Sing songs or nursery rhymes with child | 5.3 | 2.7 | 3.8 | 3.6 | 0.2 |  |
| Hugs or shows physical affection with child | 6.9 | 4.8 | 6.8 | 6.1 | 0.8 | ** |
| Tells child that he or she loves him/her | 6.9 | 5.6 | 6.8 | 5.5 | 1.2 | ** |
| Let child help you with simple chores | 5.3 | 3.2 | 4.7 | 4.0 | 0.7 | ** |
| Play imaginary games with child | 4.7 | 3.5 | 4.7 | 4.1 | 0.6 | * |
| Read stories to child | 5.3 | 2.9 | 3.9 | 3.6 | 0.3 |  |
| Tell stories to child | 4.6 | 2.8 | 3.8 | 3.7 | 0.1 |  |
| Play inside with toys with child | 5.5 | 3.9 | 5.1 | 5.0 | 0.2 |  |
| Tell child you appreciate something he/she did | 6.3 | 4.6 | 5.9 | 5.5 | 0.4 | * |
| Take child to visit relatives | 3.0 | 2.7 | 2.7 | 2.6 | 0.0 |  |
| Go to a restaurant w/child | 1.7 | 1.9 | 1.8 | 1.9 | -0.1 |  |
| Assist child with eating | 3.1 | 2.2 | 3.6 | 2.2 | 1.4 | ** |
| Put child to bed | 6.4 | 3.4 | 5.3 | 4.0 | 1.3 | ** |
| $N$ | 2,453 | 671 | 1,782 | 114 |  |  |

Notes: ${ }^{\text {a }}$ Mother reported. ${ }^{\text {b }}$ Father reported. Two-tailed unpaired t tests were used to assess significant differences between mean frequency of involvement for resident biological fathers and resident social fathers. ${ }^{*} \mathrm{p}<.05 .{ }^{* *} \mathrm{p}<.01$.

Table 5.2: Parents' Mean Frequency of Involvement by Race/Ethnicity and Living Arrangements at Year-3

| Panel A |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | (A) | (B) | (C) |  |  |  |
| Variables | All Parents | Non-Hispanic Whites ${ }^{\mathrm{a}}$ | Non- <br> Hispanic Blacks ${ }^{\text {a }}$ | Hispanics ${ }^{\text {a }}$ | (A) - (B) | (A) - (C) | (B) - (C) |
| All parents' combined frequency of involvement | 9.4 | 9.7 | 9.3 | 9.2 | 0.4 ** | 0.5 ** | 0.1 |
| Biological father's frequency of involvement ${ }^{\text {b }}$ | 4.2 | 4.4 | 4.1 | 4.2 | 0.3 ** | 0.2 ** | -0.1 |
| Mother's frequency of involvement ${ }^{\text {a }}$ | 5.0 | 5.1 | 4.9 | 4.9 | 0.2 ** | 0.2 ** | 0.0 |
|  | 4.0 | 3.9 | 4.0 | 3.7 | -0.1 | 0.2 | 0.3 |
| $N$ | 2,453 | 636 | 1,036 | 675 |  |  |  |
| Panel B |  |  |  |  |  |  |  |
|  |  | (A) | (B) | (C) |  |  |  |
| Variables | All Parents | Resident Bio Father + <br> Mother Family | Mother-only Household | Resident Social <br> Father + Mother Family | (A) - (B) | (A) - (C) | (B) - (C) |
| All parents' combined frequency of involvement | 9.4 | 9.5 | 8.6 | 12.2 | 0.9 ** | -2.7 ** | -3.6 ** |
| Biological father's frequency of involvement ${ }^{\text {b }}$ | 4.2 | 4.5 | 3.7 | 3.3 | 0.8 ** | 1.2 ** | 0.4 |
| Mother's frequency of involvement ${ }^{\text {a }}$ | 5.0 | 5.0 | 4.9 | 4.9 | 0.1 * | 0.1 | 0.0 |
| Social father's frequency of involvement ${ }^{\text {a, }}$ c | 4.0 | NA | NA | 4.0 | NA | NA | NA |
| $N$ | 2,453 | 1,672 | 667 | 114 |  |  |  |

Notes: ${ }^{a}$ Mother reported. ${ }^{b}$ Father reported. ${ }^{c} \mathrm{n}=114$ all living arrangements and social fathers + mother family. ${ }^{d} \mathrm{~N}=114$ all races, 26 NH whites, 67 NH blacks, and 18 Hispanics. Two-tailed unpaired tests were used to assess significant differences between mean frequency of involvement by race/ethnicity and for different living arrangements. ${ }^{*}$ p $.05 .^{* *}$ p $<.01$.

Table 5.3: Biological Father, Mother, Social Father, and Couple and Child Demographic Variables by Race/Ethnicity at Year-3: Descriptive Statistics (Means)

| Variables | All Parents | NonHispanic Whites ${ }^{\text {a }}$ | NonHispanic Blacks ${ }^{\text {a }}$ | Hispanics ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: |
| Biological Father Characteristics ${ }^{\text {b }}$ |  |  |  |  |
| Father has current partner other than mother: $1=$ Yes | 0.10 | 0.06 | 0.14 | 0.08 |
| Education: 1 = High school education or greater | 0.69 | 0.85 | 0.69 | 0.52 |
| Employment: 1 = Regular work last week for pay | 0.83 | 0.90 | 0.76 | 0.87 |
| Currently incarcerated: $1=$ Currently $_{\text {incarcerated }}{ }^{\text {c }}$ | 0.02 | 0.01 | 0.04 | 0.01 |
| Ever incarcerated: $1=$ Ever incarcerated $^{c}$ | 0.34 | 0.25 | 0.43 | 0.30 |
| Nativity: 1 = Native-born | 0.83 | 0.93 | 0.95 | 0.60 |
| Biological father involved in raising you?: 1 = Very involved | 0.42 | 0.52 | 0.35 | 0.44 |
| Another man who was like a father to you growing up?: 1 $=Y e s$ | 0.39 | 0.34 | 0.47 | 0.33 |
| Social Father Characteristics ${ }^{\text {a }}$ |  |  |  |  |
| Resident social father: 1=Yes | 0.05 | 0.04 | 0.06 | 0.03 |
| Nonresident social father: 1=Yes | 0.05 | 0.02 | 0.08 | 0.05 |
| Mother Characteristics ${ }^{\text {a }}$ |  |  |  |  |
| Age | 28.71 | 30.86 | 27.85 | 27.75 |
| Education: 1 = High school education or greater | 0.71 | 0.86 | 0.72 | 0.53 |
| Nativity: 1 = Native-born | 0.84 | 0.97 | 0.96 | 0.62 |
| Employment: 1=Regular work last week for pay | 0.58 | 0.57 | 0.65 | 0.49 |
| Mother received financial help from anyone other than father? 1 = Yes | 0.26 | 0.26 | 0.31 | 0.19 |
| Number of children with this biological father (including focal child) | 1.89 | 1.89 | 1.87 | 1.92 |
| Couple and Child Characteristics |  |  |  |  |
| Married and father living with child all or most of the time: $1=$ Married $^{\mathrm{b}}$ | 0.45 | 0.67 | 0.28 | 0.46 |
| Cohabiting and father living with the child all or most of the time: $1=$ Cohabiting $^{\text {b }}$ | 0.28 | 0.17 | 0.32 | 0.34 |
| Other marital status: $1=$ Separated/Divorced/Friends/No Relationship ${ }^{\text {b }}$ | 0.27 | 0.16 | 0.41 | 0.19 |
| Mother-Father relationship: $1=$ Excellent/Very Good/Good ${ }^{\text {a }}$ | 0.80 | 0.89 | 0.72 | 0.83 |
| Time between mother and father 3-year interviews (in days) | -21.57 | -17.74 | -23.60 | -23.07 |
| Mother and bio father live in different states: $1=$ Live in different states | 0.04 | 0.03 | 0.06 | 0.03 |
| Child's age at the time of mother's 3 -year interview (in months) ${ }^{\text {a }}$ | 35.46 | 34.76 | 35.67 | 35.82 |
| $N$ | 2,453 | 636 | 1,036 | 675 |

[^15]Table 5.4: OLS Regression Models Predicting All Parents’, Biological Fathers’, and Mothers' Frequency of Involvement With Their 3-Year-Old Child

| Variable | Model 1 | Model 2 | Model 3 |
| :---: | :---: | :---: | :---: |
|  | All <br> Parents | Biological Fathers | Mothers |
| Biological Father Characteristics ${ }^{\text {b }}$ |  |  |  |
| Father has current partner other than mother: $1=$ Yes | $\begin{array}{r} -0.472 * * \\ (0.135) \end{array}$ | $\begin{array}{r} -0.447 * * \\ (0.098) \end{array}$ | $\begin{array}{r} 0.029 \\ (0.064) \end{array}$ |
| Education: 1=High school education or greater | $\begin{gathered} -0.004 \\ (0.082) \end{gathered}$ | $\begin{gathered} -0.056 \\ (0.060) \end{gathered}$ | $\begin{array}{r} 0.034 \\ (0.042) \end{array}$ |
| Employment: 1=Regular work last week for pay | $\begin{gathered} -0.166 \\ (0.093) \end{gathered}$ | $\begin{aligned} & -0.157 * \\ & (0.068) \end{aligned}$ | $\begin{gathered} -0.018 \\ (0.048) \end{gathered}$ |
| Currently incarcerated: 1=Currently incarcerated ${ }^{\text {c }}$ | $\begin{array}{r} -0.636 * * \\ (0.234) \end{array}$ | $\begin{array}{r} -0.719^{* *} \\ (0.168) \end{array}$ | $\begin{gathered} -0.076 \\ (0.089) \end{gathered}$ |
| Ever incarcerated: 1=Ever incarcerated ${ }^{\text {c }}$ | $\begin{gathered} -0.148 \\ (0.078) \end{gathered}$ | $\begin{array}{r} -0.090 \\ (0.057) \end{array}$ | $\begin{gathered} -0.069 \\ (0.041) \end{gathered}$ |
| Nativity: 1=Native-born | $\begin{array}{r} 0.236 \\ (0.128) \end{array}$ | $\begin{aligned} & 0.205^{*} \\ & (0.094) \end{aligned}$ | $\begin{array}{r} 0.085 \\ (0.068) \end{array}$ |
| Biological father involved in raising you?: 1=Very involved | $\begin{array}{r} 0.265 * * \\ (0.071) \end{array}$ | $\begin{array}{r} 0.142^{* *} \\ (0.052) \end{array}$ | $\begin{aligned} & 0.11^{* *} \\ & (0.037) \end{aligned}$ |
| Another man who was like a father to you growing up?: 1=Yes | $\begin{array}{r} 0.123 \\ (0.071) \end{array}$ | $\begin{array}{r} 0.084 \\ (0.052) \end{array}$ | $\begin{array}{r} 0.044 \\ (0.037) \end{array}$ |
| Social Father Characteristics ${ }^{\text {a }}$ |  |  |  |
| Resident social father: $1=Y e s$ | $\begin{array}{r} 3.874 * * \\ (0.174) \end{array}$ | $\begin{array}{r} -0.028 \\ (0.124) \end{array}$ | $\begin{array}{r} -0.012 \\ (0.080) \end{array}$ |
| Nonresident social father: $1=$ Yes | $\begin{gathered} -0.153 \\ (0.165) \end{gathered}$ | $\begin{gathered} -0.003 \\ (0.121) \end{gathered}$ | $\begin{gathered} -0.154 \\ (0.081) \end{gathered}$ |
| Mother Characteristics ${ }^{\text {a }}$ |  |  |  |
| Age | $\begin{array}{r} -0.017 * * \\ (0.006) \end{array}$ | $\begin{array}{r} -0.007 \\ (0.004) \end{array}$ | $\begin{array}{r} -0.009 * * \\ (0.003) \end{array}$ |
| Education: 1=High school education or greater | $\begin{array}{r} 0.148 \\ (0.085) \end{array}$ | $\begin{array}{r} 0.050 \\ (0.062) \end{array}$ | $\begin{gathered} 0.128^{* *} \\ (0.044) \end{gathered}$ |
| Nativity: 1=Native-born | $\begin{array}{r} 0.482^{* *} \\ (0.131) \end{array}$ | $\begin{aligned} & 0.204^{*} \\ & (0.096) \end{aligned}$ | $\begin{gathered} 0.217 * * \\ (0.070) \end{gathered}$ |
| Employment: 1=Regular work last week for pay | $\begin{array}{r} -0.050 \\ (0.070) \end{array}$ | $\begin{gathered} -0.018 \\ (0.051) \end{gathered}$ | $\begin{gathered} -0.053 \\ (0.037) \end{gathered}$ |
| Mother received financial help from anyone other than father? $1=Y e s$ | 0.073 | 0.058 | 0.060 |
|  | (0.078) | (0.057) | (0.040) |
| Number of children with this biological father (including focal child) | $\begin{array}{r} -0.133 * * \\ (0.035) \end{array}$ | -0.050 $(0.026)$ | $\begin{array}{r} -0.093 * * \\ (0.018) \end{array}$ |

Table 5.4: OLS Regression Models Predicting All Parents', Biological Fathers’, and Mothers' Frequency of Involvement With Their 3-Year-Old Child (continued)

| Variable | Model 1 | Model 2 | Model 3 |
| :---: | :---: | :---: | :---: |
|  | All <br> Parents | Biological Fathers | Mothers |
| Couple and Child Characteristics |  |  |  |
| Married \& father living with child all or most of the time: 1=Married ${ }^{\text {b }}$ | 1.010** | 0.937** | 0.060 |
|  | (0.111) | (0.081) | (0.058) |
| Cohabiting \& father living with child all or most of the time: $1=$ Cohabiting $^{\text {b }}$ | 1.034** | 1.037** | 0.001 |
|  | (0.110) | (0.081) | (0.058) |
| Mother-Father relationship: 1=Excellent/Very Good/Good ${ }^{\text {a }}$ | 0.217* | 0.034 | 0.194** |
|  | (0.095) | (0.070) | (0.048) |
| Time between mother and father 3-year interviews (in days) | 0.001* | 0.001 | 0.000 |
|  | (0.001) | 0.000 | 0.000 |
| Mother and bio dad live in different states: 1=Live in different states | -0.045 | 0.070 | 0.073 |
|  | (0.172) | (0.123) | (0.074) |
| Child's age at the time of mother's 3-year interview (in months) ${ }^{\text {a }}$ | -0.036* | -0.003 | -0.022** |
|  | (0.015) | (0.011) | (0.008) |
| Constant | 9.743** | 3.714** | 5.668** |
|  | (0.600) | (0.440) | (0.313) |
| $N$ | 2,453 | 2,502 | 2,722 |
| $\mathrm{R}^{2}$ | 0.23 | 0.17 | 0.05 |

Notes: ${ }^{\mathrm{a}}$ Mother reported. ${ }^{\mathrm{b}}$ Father reported. ${ }^{\text {c }}$ Reported at either mother or father interview. ${ }^{\mathrm{d}}$ All parents'
frequency of involvement is the average sum of biological father, mother, and social father involvement.
Standard errors in parentheses. ${ }^{*} \mathrm{p}<.05 .^{* *} \mathrm{p}<.01$.

Table 5.5: OLS Regression Models Predicting All Parents' (Biological Father + Mother + Social Father) Frequency of Involvement With Their 3-Year-Old Child by Race and Ethnicity

|  | Model 1 | Model 2 | Model 3 |
| :---: | :---: | :---: | :---: |
| Variable | NonHispanic White ${ }^{\text {a }}$ | NonHispanic Black ${ }^{\text {a }}$ | Hispanic ${ }^{\text {a }}$ |
| Biological Father Characteristics ${ }^{\text {b }}$ |  |  |  |
| Father has current partner other than mother: $1=$ Yes | $\begin{gathered} -0.216 \\ (0.330) \end{gathered}$ | $\begin{gathered} -0.429 * \\ (0.187) \end{gathered}$ | $\begin{array}{r} -0.534 \\ (0.301) \end{array}$ |
| Education: 1=High school education or greater | $\begin{gathered} -0.285 \\ (0.190) \end{gathered}$ | $\begin{array}{r} 0.078 \\ (0.133) \end{array}$ | $\begin{array}{r} -0.036 \\ (0.140) \end{array}$ |
| Employment: 1=Regular work last week for pay | $\begin{array}{r} -0.063 \\ (0.196) \end{array}$ | $\begin{gathered} -0.307 * \\ (0.143) \end{gathered}$ | $\begin{array}{r} -0.112 \\ (0.185) \end{array}$ |
| Currently incarcerated: 1=Currently incarcerated ${ }^{\text {c }}$ | $\begin{array}{r} 0.083 \\ (0.751) \end{array}$ | $\begin{gathered} -0.640^{*} \\ (0.300) \end{gathered}$ | $\begin{gathered} -1.069 \\ (0.589) \end{gathered}$ |
| Ever incarcerated: 1=Ever incarcerated ${ }^{\text {c }}$ | $\begin{gathered} -0.057 \\ (0.156) \end{gathered}$ | $\begin{gathered} -0.127 \\ (0.123) \end{gathered}$ | $\begin{gathered} -0.278 \\ (0.143) \end{gathered}$ |
| Nativity: 1=Native-born | $\begin{array}{r} 0.003 \\ (0.251) \end{array}$ | $\begin{array}{r} 0.134 \\ (0.299) \end{array}$ | $\begin{array}{r} 0.341 \\ (0.193) \end{array}$ |
| Biological father involved in raising you?: 1=Very involved | $\begin{aligned} & 0.276^{*} \\ & (0.120) \end{aligned}$ | $\begin{aligned} & 0.275^{*} \\ & (0.124) \end{aligned}$ | $\begin{array}{r} 0.148 \\ (0.130) \end{array}$ |
| Another man who was like a father to you growing up?: 1=Yes | $\begin{array}{r} 0.054 \\ (0.124) \end{array}$ | $\begin{array}{r} 0.190 \\ (0.117) \end{array}$ | $\begin{array}{r} 0.025 \\ (0.137) \end{array}$ |
| Social Father Characteristics ${ }^{\text {a }}$ |  |  |  |
| Resident social father: 1=Yes | $\begin{array}{r} 4.387 * * \\ (0.354) \end{array}$ | $\begin{array}{r} 3.656 * * \\ (0.246) \end{array}$ | $\begin{gathered} 3.363 * * \\ (0.423) \end{gathered}$ |
| Nonresident social father: 1=Yes | $\begin{array}{r} -0.112 \\ (0.423) \end{array}$ | $\begin{array}{r} -0.153 \\ (0.227) \end{array}$ | $\begin{array}{r} -0.130 \\ (0.346) \end{array}$ |
| Mother Characteristics ${ }^{\text {a }}$ |  |  |  |
| Age | $\begin{gathered} -0.008 \\ (0.010) \end{gathered}$ | $\begin{gathered} -0.015 \\ (0.010) \end{gathered}$ | $\begin{gathered} -0.026^{*} \\ (0.011) \end{gathered}$ |
| Education: 1=High school education or greater | $\begin{array}{r} 0.100 \\ (0.194) \end{array}$ | $\begin{array}{r} 0.071 \\ (0.137) \end{array}$ | $\begin{array}{r} 0.165 \\ (0.145) \end{array}$ |
| Nativity: 1=Native-born | $\begin{array}{r} 0.073 \\ (0.368) \end{array}$ | $\begin{gathered} -0.046 \\ (0.329) \end{gathered}$ | $\begin{gathered} 0.758^{* *} \\ (0.189) \end{gathered}$ |
| Employment: 1=Regular work last week for pay | $\begin{gathered} -0.009 \\ (0.119) \end{gathered}$ | $\begin{aligned} & -0.055 \\ & (0.124) \end{aligned}$ | $\begin{array}{r} 0.018 \\ (0.127) \end{array}$ |
| Mother received financial help from anyone other than father? $1=Y e s$ | -0.093 | 0.066 | 0.204 |
|  | (0.134) | (0.123) | (0.161) |
| Number of children with this biological father (including focal child) | 0.252** <br> (0.063) | $\begin{gathered} -0.076 \\ (0.056) \end{gathered}$ | $\begin{gathered} -0.127 * \\ (0.065) \end{gathered}$ |

Table 5.5: OLS Regression Models Predicting All Parents’ (Biological Father + Mother + Social Father) Frequency of Involvement With Their 3-Year-Old Child by Race and Ethnicity (continued)

| Variable | Model 1 | Model 2 | Model 3 |
| :---: | :---: | :---: | :---: |
|  | NonHispanic White ${ }^{\text {a }}$ | NonHispanic Black ${ }^{\text {a }}$ | Hispanic ${ }^{\text {a }}$ |
| Couple and Child Characteristics |  |  |  |
| Married \& father living with child all or most of the time: 1=Married ${ }^{\text {b }}$ | 1.439** | 0.859** | 0.807** |
|  | (0.233) | (0.173) | (0.236) |
| Cohabiting \& F living with child all or most of the time: $1=$ Cohabiting $^{\text {b }}$ | 1.252** | 1.071** | 0.742** |
|  | (0.252) | (0.157) | (0.238) |
| Mother-Father relationship: 1=Excellent/Very Good/Good ${ }^{\text {a }}$ | -0.025 | 0.159 | 0.559** |
|  | (0.214) | (0.136) | (0.195) |
| Time between mother and father 3-year interviews (in days) | -0.002 | 0.002 | 0.001 |
|  | (0.001) | (0.001) | (0.001) |
| Mother and bio dad live in different states: 1=Live in different states | -0.295 | -0.004 | -0.019 |
|  | (0.407) | (0.248) | (0.364) |
| Child's age at the time of mother's 3-year interview (in months) ${ }^{\text {a }}$ | 0.004 | -0.048 | -0.027 |
|  | (0.029) | (0.027) | (0.025) |
| Constant | 8.943** | 10.735** | 9.359** |
|  | (1.167) | (1.078) | (1.011) |
| $N$ | 636 | 1,036 | 675 |
| $\mathrm{R}^{2}$ | 0.27 | 0.23 | 0.24 |

Notes: ${ }^{a}$ Mother reported. ${ }^{6}$ Father reported. ${ }^{\text {c }}$ Reported at either mother or father interview. ${ }^{\text {d }}$ All parents’ frequency of involvement is the average sum of biological father, mother, and social father involvement. Standard errors in parentheses. ${ }^{*}$ p $<.05 .{ }^{* *}$ p $<.01$.

Table 5.6: OLS Regression Models Predicting Biological Fathers’ Frequency of Involvement With Their 3-Year-Old Child by Race and Ethnicity

|  | Model 1 | Model 2 | Model 3 |
| :---: | :---: | :---: | :---: |
| Variable | NonHispanic White ${ }^{\text {a }}$ | NonHispanic Black ${ }^{\text {a }}$ | Hispanic ${ }^{\text {a }}$ |
| Biological Father Characteristics ${ }^{\text {b }}$ |  |  |  |
| Father has current partner other than mother: $1=Y e s$ | $\begin{gathered} -0.392 \\ (0.248) \end{gathered}$ | $\begin{array}{r} -0.461^{* *} \\ (0.132) \end{array}$ | $\begin{gathered} -0.456^{*} \\ (0.220) \end{gathered}$ |
| Education: 1=High school education or greater | $\begin{aligned} & -0.217 \\ & (0.147) \end{aligned}$ | $\begin{gathered} -0.075 \\ (0.095) \end{gathered}$ | $\begin{array}{r} 0.034 \\ (0.103) \end{array}$ |
| Employment: 1=Regular work last week for pay | $\begin{gathered} -0.052 \\ (0.153) \end{gathered}$ | $\begin{gathered} -0.183 \\ (0.102) \end{gathered}$ | $\begin{gathered} -0.169 \\ (0.136) \end{gathered}$ |
| Currently incarcerated: 1=Currently incarcerated ${ }^{\text {c }}$ | $\begin{array}{r} 0.180 \\ (0.586) \end{array}$ | $\begin{array}{r} -0.678 * * \\ (0.211) \end{array}$ | $\begin{gathered} -1.027^{*} \\ (0.413) \end{gathered}$ |
| Ever incarcerated: 1=Ever incarcerated ${ }^{\text {c }}$ | $\begin{array}{r} 0.001 \\ (0.121) \end{array}$ | $\begin{gathered} -0.159 \\ (0.089) \end{gathered}$ | $\begin{aligned} & -0.086 \\ & (0.105) \end{aligned}$ |
| Nativity: 1=Native-born | $\begin{array}{r} 0.139 \\ (0.192) \end{array}$ | $\begin{array}{r} 0.064 \\ (0.215) \end{array}$ | $\begin{array}{r} 0.124 \\ (0.141) \end{array}$ |
| Biological father involved in raising you?: 1=Very involved | $\begin{aligned} & 0.202^{*} \\ & (0.093) \end{aligned}$ | $\begin{array}{r} 0.096 \\ (0.089) \end{array}$ | $\begin{array}{r} 0.145 \\ (0.095) \end{array}$ |
| Another man who was like a father to you growing up?: 1=Yes | $\begin{array}{r} -0.011 \\ (0.097) \end{array}$ | $\begin{array}{r} 0.140 \\ (0.084) \end{array}$ | $\begin{array}{r} 0.039 \\ (0.101) \end{array}$ |
| Social Father Characteristics ${ }^{\text {a }}$ |  |  |  |
| Resident social father: 1 Yes | $\begin{aligned} & 0.672^{*} \\ & (0.265) \end{aligned}$ | $\begin{gathered} -0.195 \\ (0.172) \end{gathered}$ | $\begin{gathered} -0.324 \\ (0.303) \end{gathered}$ |
| Nonresident social father: $1=$ Yes | $\begin{array}{r} 0.275 \\ (0.329) \end{array}$ | $\begin{gathered} -0.144 \\ (0.163) \end{gathered}$ | $\begin{gathered} -0.004 \\ (0.254) \end{gathered}$ |
| Mother Characteristics ${ }^{\text {a }}$ |  |  |  |
| Age | $\begin{array}{r} 0.006 \\ (0.008) \end{array}$ | $\begin{array}{r} -0.009 \\ (0.007) \end{array}$ | $\begin{gathered} -0.015 \\ (0.008) \end{gathered}$ |
| Education: 1=High school education or greater | $\begin{array}{r} 0.276 \\ (0.148) \end{array}$ | $\begin{array}{r} -0.026 \\ (0.099) \end{array}$ | $\begin{array}{r} 0.008 \\ (0.106) \end{array}$ |
| Nativity: 1=Native-born | $\begin{array}{r} -0.143 \\ (0.276) \end{array}$ | $\begin{array}{r} -0.095 \\ (0.238) \end{array}$ | $\begin{array}{r} 0.376 * * \\ (0.139) \end{array}$ |
| Employment: 1=Regular work last week for pay | $\begin{array}{r} -0.002 \\ (0.092) \end{array}$ | $\begin{array}{r} -0.009 \\ (0.088) \end{array}$ | $\begin{array}{r} 0.053 \\ (0.093) \end{array}$ |
| Mother received financial help from anyone other than father? $1=Y e s$ | $0.013$ | 0.010 | $0.218$ |
|  | (0.104) | (0.088) | (0.118) |
| Number of children with this biological father (including focal child) | -0.114* | -0.011 | -0.049 |
|  | (0.049) | (0.040) | (0.048) |

Table 5.6: OLS Regression Models Predicting Biological Fathers' Frequency of Involvement With Their 3-Year-Old Child by Race and Ethnicity (continued)

| Variable | Model 1 | Model 2 | Model 3 |
| :---: | :---: | :---: | :---: |
|  | NonHispanic White ${ }^{\text {a }}$ | NonHispanic Black ${ }^{\text {a }}$ | Hispanic ${ }^{\text {a }}$ |
| Couple and Child Characteristics |  |  |  |
| Married \& father living with child all or most of the time: $1=$ Married $^{\text {b }}$ | 1.255** | 0.809** | 0.959** |
|  | (0.180) | (0.125) | (0.173) |
| Cohabiting \& F living with child all or most of the time: $1=$ Cohabiting ${ }^{\text {b }}$ | 1.321** | 1.030** | 0.945** |
|  | (0.194) | (0.113) | (0.175) |
| Mother-Father relationship: 1=Excellent/Very Good/Good ${ }^{\text {a }}$ | -0.165 | 0.052 | 0.085 |
|  | (0.164) | (0.097) | (0.143) |
| Time between mother and father 3-year interviews (in days) | -0.001 | 0.001 | 0.001* |
|  | (0.001) | (0.001) | (0.001) |
| Mother and bio dad live in different states: $1=$ Live in different states | 0.262 | 0.085 | -0.291 |
|  | (0.296) | (0.174) | (0.264) |
| Child's age at the time of mother's 3-year interview (in months) ${ }^{\text {a }}$ | 0.020 | -0.004 | -0.017 |
|  | (0.022) | (0.019) | (0.018) |
| Constant | 2.656** | 4.279** | 4.293** |
|  | (0.902) | (0.770) | (0.740) |
| $N$ | 649 | 1,063 | 679 |
| $\mathrm{R}^{2}$ | 0.15 | 0.20 | 0.20 |

Notes: ${ }^{a}$ Mother reported. ${ }^{\mathrm{b}}$ Father reported. ${ }^{\mathrm{c}}$ Reported at either mother or father interview.
Standard errors in parentheses. ${ }^{*}$ p .05. ${ }^{* *}$ p $<01$.

Table 5.7: OLS Regression Models Predicting Mothers’ Frequency of Involvement With Their 3-Year-Old Child by Race and Ethnicity

|  | Model 1 | Model 2 | Model 3 |
| :---: | :---: | :---: | :---: |
| Variable | NonHispanic White ${ }^{\text {a }}$ | NonHispanic Black ${ }^{\text {a }}$ | Hispanic ${ }^{\text {a }}$ |
| Biological Father Characteristics ${ }^{\text {b }}$ |  |  |  |
| Father has current partner other than mother: $1=$ Yes | $\begin{gathered} -0.103 \\ (0.148) \end{gathered}$ | $\begin{array}{r} 0.097 \\ (0.083) \end{array}$ | $\begin{array}{r} -0.022 \\ (0.162) \end{array}$ |
| Education: 1=High school education or greater | $\begin{array}{r} 0.027 \\ (0.096) \end{array}$ | $\begin{array}{r} 0.077 \\ (0.063) \end{array}$ | $\begin{array}{r} -0.039 \\ (0.082) \end{array}$ |
| Employment: 1=Regular work last week for pay | $\begin{array}{r} 0.051 \\ (0.101) \end{array}$ | $\begin{gathered} -0.145^{*} \\ (0.068) \end{gathered}$ | $\begin{array}{r} 0.110 \\ (0.107) \end{array}$ |
| Currently incarcerated: 1=Currently incarcerated ${ }^{\text {c }}$ | $\begin{array}{r} 0.136 \\ (0.240) \end{array}$ | $\begin{gathered} -0.112 \\ (0.110) \end{gathered}$ | $\begin{gathered} -0.287 \\ (0.244) \end{gathered}$ |
| Ever incarcerated: 1=Ever incarcerated ${ }^{\text {c }}$ | $\begin{array}{r} -0.095 \\ (0.081) \end{array}$ | $\begin{gathered} -0.026 \\ (0.061) \end{gathered}$ | $\begin{gathered} -0.149 \\ (0.085) \end{gathered}$ |
| Nativity: 1=Native-born | $\begin{gathered} -0.038 \\ (0.130) \end{gathered}$ | $\begin{array}{r} 0.095 \\ (0.152) \end{array}$ | $\begin{aligned} & 0.234^{*} \\ & (0.113) \end{aligned}$ |
| Biological father involved in raising you?: 1=Very involved | $\begin{array}{r} 0.081 \\ (0.063) \end{array}$ | $\begin{gathered} 0.158 * * \\ (0.061) \end{gathered}$ | $\begin{array}{r} 0.009 \\ (0.076) \end{array}$ |
| Another man who was like a father to you growing up?: 1=Yes | $\begin{array}{r} 0.083 \\ (0.065) \end{array}$ | $\begin{array}{r} 0.042 \\ (0.057) \end{array}$ | $\begin{array}{r} 0.024 \\ (0.081) \end{array}$ |
| Social Father Characteristics ${ }^{\text {a }}$ |  |  |  |
| Resident social father: 1=Yes | $\begin{array}{r} 0.106 \\ (0.162) \end{array}$ | $\begin{array}{r} -0.102 \\ (0.106) \end{array}$ | $\begin{array}{r} -0.074 \\ (0.208) \end{array}$ |
| Nonresident social father: $1=Y e s$ | $\begin{gathered} -0.268 \\ (0.199) \end{gathered}$ | $\begin{array}{r} -0.174 \\ (0.105) \end{array}$ | $\begin{array}{r} -0.064 \\ (0.196) \end{array}$ |
| Mother Characteristics ${ }^{\text {a }}$ |  |  |  |
| Age | $\begin{array}{r} -0.015^{* *} \\ (0.005) \end{array}$ | $\begin{gathered} -0.004 \\ (0.005) \end{gathered}$ | $\begin{array}{r} -0.011 \\ (0.007) \end{array}$ |
| Education: 1=High school education or greater | $\begin{gathered} -0.107 \\ (0.097) \end{gathered}$ | $\begin{array}{r} 0.119 \\ (0.065) \end{array}$ | $\begin{array}{r} 0.139 \\ (0.086) \end{array}$ |
| Nativity: 1=Native-born | $\begin{array}{r} 0.002 \\ (0.187) \end{array}$ | $\begin{array}{r} 0.066 \\ (0.164) \end{array}$ | $\begin{gathered} 0.313^{* *} \\ (0.111) \end{gathered}$ |
| Employment: 1=Regular work last week for pay | $\begin{gathered} -0.039 \\ (0.062) \end{gathered}$ | $\begin{gathered} -0.058 \\ (0.059) \end{gathered}$ | $\begin{gathered} -0.014 \\ (0.075) \end{gathered}$ |
| Mother received financial help from anyone other than father? $1=Y e s$ | $-0.004$ | $0.090$ | $-0.005$ |
|  | (0.069) | (0.059) | (0.095) |
| Number of children with this biological father (including focal child) | $\begin{array}{r} -0.158^{* *} \\ (0.032) \end{array}$ | $\begin{array}{r} -0.088^{* *} \\ (0.027) \end{array}$ | $\begin{gathered} -0.054 \\ (0.039) \end{gathered}$ |

Table 5.7: OLS Regression Models Predicting Mothers’ Frequency of Involvement With Their 3-Year-Old Child by Race and Ethnicity (continued)

|  | Model 1 | Model 2 | Model 3 |
| :---: | :---: | :---: | :---: |
| Variable | NonHispanic White ${ }^{\text {a }}$ | NonHispanic Black ${ }^{\text {a }}$ | Hispanic ${ }^{\text {a }}$ |
| Couple and Child Characteristics |  |  |  |
| Married \& father living with child all or most of the time: 1=Married ${ }^{\text {b }}$ | 0.109 | 0.020 | -0.093 |
|  | (0.118) | (0.087) | (0.135) |
| Cohabiting \& F living with child all or most of the time: $1=$ Cohabiting ${ }^{\text {b }}$ | -0.124 | 0.043 | -0.125 |
|  | (0.129) | (0.078) | (0.136) |
| Mother-Father relationship: 1=Excellent/Very Good/Good ${ }^{\text {a }}$ | 0.195 | 0.145* | 0.328** |
|  | (0.108) | (0.065) | (0.112) |
| Time between mother and father 3-year interviews (in days) | -0.001* | 0.000 | 0.000 |
|  | (0.001) | 0.000 | (0.001) |
| Mother and bio dad live in different states: $1=$ Live in different states | -0.254 | 0.158 | 0.196 |
|  | (0.164) | (0.098) | (0.185) |
| Child's age at the time of mother's 3-year interview (in months) ${ }^{\text {a }}$ | -0.007 | -0.025* | -0.014 |
|  | (0.015) | (0.013) | (0.014) |
| Constant | 5.940** | 5.758** | 5.188** |
|  | $(0.612)$ | $(0.514)$ | (0.590) |
| $N$ | 677 | 1,210 | 724 |
| $\mathrm{R}^{2}$ | 0.09 | 0.04 | 0.10 |

Notes: ${ }^{\text {a }}$ Mother reported. ${ }^{\mathrm{b}}$ Father reported. ${ }^{\mathrm{c}}$ Reported at either mother or father interview.
Standard errors in parentheses. ${ }^{*}$ p .05. ${ }^{* *}$ p $<.01$.

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## Vita

Kelly Severin Mikelson received her A.B. (artium baccalaureus) degree from Harvard-Radcliffe College in January 1993. She received her Master's in Public Policy degree from Harvard University’s John F. Kennedy School of Government in June 1998. During the following years she was employed in Washington, DC as an Evaluator at the U.S. General Accounting Office (1998-1999) and as a Research Associate at The Urban Institute (1999-2004). In August 2004, she entered the Lyndon B. Johnson School of Public Affairs at The University of Texas at Austin.

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[^0]:    ${ }^{1}$ Defined by the Office of Child Support Enforcement as children who are currently: (1) recipients of TANF, or (2) entitled to foster care maintenance payments.

[^1]:    ${ }^{2}$ See Pirog and Ziol-Guest (2006) for a more detailed discussion of the interaction of TANF benefits and child support payments.

[^2]:    ${ }^{3}$ The family cap policy is a provision of welfare programs that limits the increase in benefits a recipient unit can receive after the birth of another child.

[^3]:    ${ }^{4}$ The frequency of involvement measures in the FFCW study are similar to measures in the Early Head Start Study's Fatherhood Component parental survey (Carlson, McLanahan, and Brooks-Gunn, 2006).

[^4]:    ${ }^{5}$ The child support enforcement collection rate and the paternity establishment rate data are published by the Office of Child Support Enforcement.
    ${ }^{6}$ Paternity establishment measured in the OCSE data are separate from voluntary paternities established in the hospital. According to Pirog and Ziol-Guest (2006), in-hospital voluntary paternities are currently a larger proportion of all paternities established than OCSE administrative paternities.
    ${ }^{7}$ In cases where it is known in which state the child support agreement was signed, this state is used instead of mother's state of residence.
    ${ }^{8}$ Paternity establishment may exceed 100 percent because (1) the official paternity establishment rate may include paternities from previous years; and because (2) hospitals and child support offices may doublecount but are not required to eliminate overlap in reporting to the state child support agency.

[^5]:    ${ }^{9}$ Data for the welfare policies was obtained from The Urban Institute’s Welfare Rules Database.

[^6]:    ${ }^{10}$ For outcomes one (living arrangements) and two (material support), we used the test for the proportional odds assumption to determine whether an ordered logit model, which is appropriate for modeling an ordered multiple discrete outcome, should be used. The ordered logit model assumes that the odds ratio is constant for all categories. Because we found that the proportional odds assumption was violated, we used the multinomial logit procedure.

[^7]:    ${ }^{11}$ In this chapter, the living arrangements discussed refer to the mother and father of the focal child, and living arrangements with other partners of the mother or the father are not discussed.

[^8]:    12 In the multivariate analysis, the child support enforcement variable and the paternity establishment variable are defined to be ten times their actual rates to ease interpretation of the multivariate coefficients, however, in the chapter we discuss the actual rates.

[^9]:    13 We also ran Model 3 in Tables 4.3 and 4.5 with interactions between the survey wave and the policy variables to determine if the policies have differing effects as the child ages. With two exceptions, this analysis did not demonstrate any significant time-varying effect of the policies. The two exceptions both concern the marriage results. First, the time-varying analysis suggests that larger TANF benefits decrease the likelihood of marriage when the child is one and five, but not when the child is three. Second, they suggest that the positive effect of a longer TANF time limit on marriage occurs only when the child is five years old.

[^10]:    14 Unreported models show that marriage and cohabitation increase fathers' frequency of involvement.

[^11]:    15 The mean frequency of involvement of social fathers (as well as biological fathers and mothers) is shown in Table 5.1. However, this variable cannot be used as a dependent variable since it only includes observations for mothers who have a current resident partner.

[^12]:    ${ }^{16}$ Biological father and mother's race and ethnicity are correlated at 0.81 for non-Hispanic whites, 0.85 for non-Hispanic blacks, and 0.78 for Hispanics. Biological father and mother's age are correlated at 0.75.

[^13]:    ${ }^{\text {a }}$ Separated/Divorced/Friends/No Relationship. ${ }^{\mathrm{b}}$ Mother reported. ${ }^{\text {c }}$ Father reported.

[^14]:    ${ }^{\text {a }}$ Father residency reported by father. ${ }^{6}$ Exact agreement compares the following categories for fathers and mothers: 7, 6, 5, 4, 3, 2, 1, and 0 days/week. ${ }^{*} p<.05 .{ }^{* *} p<.01$.

[^15]:    Note: ${ }^{a}$ Mother reported. ${ }^{\mathrm{b}}$ Father reported. ${ }^{\mathrm{c}}$ Reported at either mother or father interview.

