

The Fragile Families and Child Wellbeing Study changed its name to The Future of Families and Child Wellbeing Study (FFCWS). Due to the issue date of this document, FFCWS will be referenced by its former name. Any further reference to FFCWS should kindly observe this name change.

**“Fathers’ Involvement and Fathers’ Well-being
over Children’s First Five Years”**

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Abstract

Despite the growing scholarly attention to fathers' roles in family life, the consequences of fathers' involvement with children for *men's* well-being have been little explored. Using data from the Fragile Families and Child Wellbeing Study ($N=3,880$), we evaluate how fathers' involvement (time, engagement and responsibility) is linked to fathers' well-being with respect to health and mental health, social integration, and economic outcomes. We evaluate resident and non-resident fathers separately, using data from three survey waves about 1, 3 and 5 years after a baby's birth. Our results indicate that fathers' involvement is not strongly related to paternal health and mental health, but greater involvement is linked with better relationship quality with the child's biological mother for both resident and non-resident fathers. With respect to economic outcomes, there is modest evidence that greater involvement is linked to lower earnings for resident fathers—and to higher earnings for non-resident fathers.

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The past four decades have witnessed a dramatic change in the nature of fathers' involvement with children, as fathering has moved beyond 'breadwinning' (i.e., providing economic support) to include other aspects of parenting such as nurturing and caregiving; engaging in leisure and play activities; providing the child's mother with emotional or practical support; providing moral guidance and discipline; ensuring the safety of the child; taking responsibility for coordinating the child's care and activities; and connecting the child to extended family, community members, and resources (Cabrera, Tamis-LeMonda, Bradley, Hofferth, and Lamb 2000; Marsiglio, Amato, Day, and Lamb 2000; Palkovitz 2002a). As a result, a growing literature has examined the nature and consequences of fatherhood and father involvement in family life.

Despite the growing scholarly attention to father involvement, the consequences *for men* of being fathers have been little explored (Eggebeen 2002; Eggebeen and Knoester 2001). Most studies have focused on whether and how father involvement affects children (e.g., Amato and Rivera 1999; King 1994; Seltzer 1991). Yet, one would expect that fathers' investments in children—and the affective quality of relationship that results (whether close, distant or contentious)—could potentially affect fathers' own health, mental health, social relationships, and economic activity. Qualitative evidence suggests that for low-income men (that are primarily non-resident), fatherhood is a key turning point in their lives, prompting a major change in lifestyle and priorities (Edin, Nelson, and Paranal 2004), suggesting that men who fully embrace this role and are more engaged as fathers will have higher (and potentially increasing) levels of well-being. For resident (primarily married) fathers, fathering occurs in what has been called the 'package deal' in which fathers' roles as partners and parents are tightly linked (Furstenberg and Cherlin 1991; Townsend 2002). Thus, the fact that marriage is associated with better health, mental health, happiness and higher earnings for men (Waite and Gallagher 2000) might be attributable—at least in part—to their roles as fathers within marriage.

In this paper, we use data from the Fragile Families and Child Wellbeing Study to examine how the level of and change in fathers' involvement with children is associated with men's own well-being with respect to health and mental health, social integration, and economic activity. We include both fathers that were unmarried and married at the time of the focal child's birth, and we follow them over three survey waves about 1, 3 and 5 years after the birth. We examine resident and non-resident fathers separately, since the nature and meaning of father involvement differ across these residential and union contexts, and we examine multiple measures of father involvement. In the sections to follow, we describe our conceptual framework and summarize the relevant empirical literature. Then, we describe our data and analytic strategy, present our results, and discuss the implications of our findings.

Conceptual Framework and Prior Research

Conceptual Framework

Our conceptual framing draws on role theory, which argues that social positions and identities affect the expectations about behavior that one has of oneself and others (Biddle 1986; Sarbin 1954). While variation in patterns of family formation and childbearing has grown in recent decades, still today, more than three-fourths of men will become fathers by the time they reach age 40 (Ellwood, Wilde, and Batchelder 2009). Becoming a father changes one's social position and brings a new set of expectations and responsibilities related to caring for and socializing the next generation. Men who actively embrace this new role likely reap the benefits of that new affective relationship and of the synchrony of their role expectations with their actual behavior; this may enhance their mental health, help embed them in social communities, and motivate their work effort, particularly given the emphasis on 'breadwinning' as a key component of fatherhood (Christiansen and Palkovitz 2001). Therefore, we expect that higher levels of paternal involvement will be positively linked to men's well-being. By contrast, men who step away from the fathering role likely lose the benefits of the father-child

relationship itself and also experience role strain due to the mismatch of social expectations about the father role and their performance in it.

It is important to define what we mean by father involvement. As noted earlier, the nature of fathering has changed and expanded in recent decades, with men now taking more active roles in childrearing. Over this period, fatherhood scholars have developed a number of conceptual models to identify the key components of fathers' involvement. One of the first and most persisting 'typologies' developed by Lamb and colleagues, identifies three key components of paternal involvement—accessibility, engagement, and responsibility (Lamb 2004; Lamb, Pleck, Charnov, and Levine 1985): *accessibility* (or *availability*) refers to the time that fathers are available to children, even if they are not directly interacting; *engagement* (or *interaction*) refers to time spent with children doing activities that are known to contribute to healthy child development (e.g., reading); and *responsibility* refers to fathers' helping to arrange resources and activities for children. We expect that men's greater levels of involvement in terms of these three components will be linked to greater levels of well-being.

We know that fathering today occurs across different contexts, the most important distinction being whether men live with or away from their children. Co-resident fathers typically spend more time with their children than non-resident fathers, simply because sharing a household affords greater opportunity for day-to-day interactions (Amato and Gilbreth 1999). Since after union dissolution, children usually live with mothers (Amato 2000), non-resident fathers have less 'automatic' access to their children. Living away from one's children increases the transaction costs of spending time together (Weiss and Willis 1985), and fathers must gain the cooperation of mothers who have greater control of the child and who may act as "gatekeepers" of the father-child relationship (Allen and Hawkins 1999).

It is ambiguous whether we might expect father involvement to be more strongly associated with men's well-being for resident versus non-resident fathers. On the one hand, for resident fathers, fathering is a bigger part of their daily life, so their involvement may have *more* effect on their well-

being than for non-resident fathers. On the other hand, precisely because father involvement is more expected for resident fathers as part of the ‘package deal,’ higher levels of involvement (within a social context where the father role is highly salient) may not have much additional effect on fathers’ well-being. By contrast, for non-resident fathers, since access to children is less routine, the more that they ‘take on’ an active fathering role, the bigger may be the impact on their own well-being.

It is also important to note that social selection may play a role in how father involvement and father well-being are associated. We expect that men with a priori ‘positive’ characteristics (education, maturity, temperament, etc.) will display high levels of involvement and also have high levels of well-being, while men with more negative characteristics will be less involved and have lower well-being. Therefore, we must be cautious in attributing to father involvement what is actually due to other pre-existing attributes about fathers. For this reason, in all of our multivariate models, we controls for a wide range of covariates. Also, we estimate fixed effects models which are more conservative with respect to causal inference, since they essentially allow individuals to serve as their own controls by estimating *change* in well-being as a function of *change* in involvement, net of all time invariant characteristics (and of the time-varying variables we include); at the same time, these models are less efficient, so estimates are less likely to reach statistical significance.

We consider three domains of well-being outcomes – health and mental health, social integration, and economic activity. We expect that greater father involvement (with respect to time, engagement and responsibility) will be linked to higher well-being in each domain, although the mechanisms may be slightly different. With respect to health, we expect that greater involvement with the child may encourage fathers to take better care of their health (Knoester, Petts, and Eggebeen 2007; Palkovitz 2002b); in fact, fatherhood was recently identified in a major medical journal as an important consideration vis-à-vis men’s health (Garfield, Clark-Kauffman, and Davis 2006). Similarly, involvement may improve (mental) health by giving fathers a sense of meaning and purpose and by

motivating them to avoid ‘risky’ behaviors, including binge drinking and use of illicit drugs (Edin, Nelson and Paranal 2004). Greater involvement may also reduce fathers’ parental stress/aggravation as they become more comfortable in the role of parent and have a better understanding of the child; on the other hand, greater involvement could also increase parental stress, as fathers feel a greater sense of burden for ensuring their child’s healthy development.

With respect to social integration, we expect that greater involvement with the child will help connect the father to family members and to other child-related social networks (Nomaguchi and Milkie 2003). For example, grandparents are shown to provide greater support to their adult children who have young children than those who do not (Eggebeen and Hogan 1990). Fathers’ demonstrating greater commitment toward and investment in the child may also increase the cooperation and sense of shared purpose—and hence quality of relationship—with the child’s mother. In addition, greater involvement may increase fathers’ religious attendance as they endeavor to transmit their attitudes, values and philosophy of life to their children and to provide them with a positive social outlet via the activities organized by religious institutions (Eggebeen and Knoester 2001; King 2003; Wilcox 2004).

As to the economic outcomes, we expect that greater involvement may increase fathers’ work hours and earnings, since ‘breadwinning’ has historically been a central element of fathering (Christiansen and Palkovitz 2001). At the same time, given that time is a finite resource, time spent with children necessarily reduces fathers’ time available for work in the labor market, so we might also expect a negative relationship between paternal involvement and employment (Coltrane 1996; Knoester and Eggebeen 2006). There may be important differences by fathers’ residential context in how father involvement is linked to work and earnings. Resident fathers have a second caregiver in the household with whom to jointly allocate investments in the home and the labor market. Thus, we would expect that father involvement might be negatively related to fathers’ employment, particularly if mothers are working more. By contrast, for non-resident fathers, greater involvement with children may motivate

them to work harder in the labor market—or their higher earnings may give them (or the mother) a greater sense of being a ‘good’ father and hence encourage involvement in other ways (Lerman and Sorenson 2000). While the causal direction is not clear, we expect that non-resident fathers’ greater involvement will be positively linked to hours of work and earnings.

Prior Empirical Research

Fatherhood and father well-being. The past few decades have produced a burgeoning literature on fatherhood that explores the variability in its content, context, and implications (Furstenberg 1988; Marsiglio, Amato, Day, and Lamb 2000). This research is linked to changes in the conceptualization of and attitudes toward fatherhood and related demographic changes that influence the relationship between fathers and their children (Cabrera et al. 2000; Eggebeen 2002; LaRossa 1988). High rates of nonmarital fertility, divorce, and incarceration contribute to increasing proportions of children who live away from their biological fathers (McLanahan and Sandefur 1994; Seltzer 2000; Western and McLanahan 2000); according to recent Census data, 27% of children under age 18 are currently living away from their biological father (U.S. Census Bureau 2010). For men, fatherhood has become less central to the life course: Eggebeen (2002) found that across 5-year age groups spanning ages 20 to 64, a smaller proportion of men were living with their own children in 1995 than during the 1965-85 period.

There is growing evidence—particularly as a result of the work of David Eggebeen, Chris Knoester, and colleagues—that transitioning to fatherhood and being a father (i.e., the status of fatherhood) are positively associated with life satisfaction and self-esteem, community engagement, family connections, religious participation, and (sometimes) employment (Eggebeen 2002; Eggebeen, Dew, and Knoester 2010; Eggebeen and Knoester 2001; Knoester and Eggebeen 2006; Knoester, Petts, and Eggebeen 2007; Nomaguchi and Milkie 2003). Yet, some research suggests that the link between fatherhood and well-being depends on the fathers’ marital or residential context: Non-resident fathers have worse outcomes than co-resident fathers with respect to health, community involvement, and

employment (Eggebeen and Knoester 2001). Also, compared to married men, unmarried men are more likely to experience negative effects of becoming a parent on their mental health (Nomaguchi and Milkie 2003), and widowed or divorced fathers are more likely than married fathers to be lonely and depressed in later life (Zhang and Hayward 2001).

Father involvement and father well-being. Beyond the literature focused on how *fatherhood* is associated with well-being (summarized in the prior section), little is known about how the extent to which fathers display greater involvement is linked to higher levels of well-being. The paper that comes closest to this topic is by Knoester and Eggebeen (2007), which uses data from the first two waves of the Fragile Families Study to examine how changes in commitments to fathering are related to changes in fathers' well-being over one year. They find that changes in fathers' attitudes and engagement with children (and relationship quality—not our focus here) between birth and one year later are generally associated with small but significant improvements in well-being with respect to health, depression, substance abuse, religion and paid labor; the one exception is that increased paternal engagement is linked to lower work hours, presumably due to time demands (Knoester and Eggebeen 2007).

In this paper, we use data about fathers of a recent urban birth cohort to examine how levels of father involvement over time are associated with measures of well-being over time. We extend the literature by following fathers across years 1, 3 and 5 after a baby's birth, observing the same measures of involvement and well-being at each wave and using methods designed to capture variation both between and within subjects. Also, we separate resident and non-resident fathers, since these represent very different structural and relationship contexts in which men are enacting the father role.

Method

We use data from the Fragile Families and Child Wellbeing Study, a longitudinal study of births (with an oversample of nonmarital births) that occurred between 1998 and 2000 in large U.S. cities. The study includes 4,897 births—3,710 unmarried and 1,187 married, and the weighted sample is

representative of births in U.S. cities with populations over 200,000. Baseline interviews with mothers and fathers took place in 75 hospitals in 20 cities just after the baby's birth, and follow-up interviews were conducted at 1, 3, and 5 years after the birth. Response rates at baseline were 75% for unmarried fathers and 89% for married fathers, yielding 3,830 interviewed fathers. However, a number of fathers who could not be located at birth were located and interviewed at a subsequent wave, so overall, 4,331 fathers were interviewed at least once from birth through year 5. At the 1-, 3- and 5-year follow-up surveys, the proportions of eligible unmarried (at birth) fathers interviewed were 71%, 69%, and 67%—and of married (at birth) fathers were 82%, 82%, and 78%—respectively.

Analytic Sample

We limited the sample to fathers who were not interviewed in jail and to fathers whose children resided with the biological mother; there were not enough cases of other child living arrangements for meaningful analysis. The full analytic sample for this paper consisted of 3,880 unique fathers who provided at least one interview over the 1-, 3- and 5-year surveys and for whom information about co-residence status was reported. We pooled interviewed cases across the three survey waves, yielding 9,292 person-year observations, with a mean number of 2.39 survey waves for each father observed. In order to generalize to the 'full' samples of resident and non-resident fathers, we identified co-residence status at each wave and pooled samples across waves based on their current resident status. Thus, fathers are allowed to change categories, as they break up with mothers (and a smaller subset moves in); resident fathers contributed 6,038 person-year observations, and non-resident fathers contributed 3,254 person-year observations. (As shown in Table 2, the weighted proportion of interviewed resident fathers declined from 84% at year 1 to 69% at year 5.) To maximize the number of observations used, we allowed the number of observations to vary across particular combinations of the independent and dependent variables in various models. The fraction of missing was 11% or less for every outcome variable except earnings, for which 30% of person-years were missing; this is primarily due to missing

data at the 1-year survey, as a direct question about total earnings was not asked of all respondents. We employed an imputation strategy for earnings that is discussed in the next section. Missing values on covariates within the analytic sample were minimal, and we used multiple imputation techniques (Royston 2004) to impute missing covariates (but not the father involvement or well-being measures); the imputation model included variables related to our independent variables of interest, our dependent variables, and the likelihood of being missing (Allison 2002).

It is important to keep the analytic sample in mind when interpreting the findings, since we found in supplemental analyses that fathers lost to attrition by the 5-year survey were more disadvantaged than those who remained. Compared to the analytic sample of fathers, those who dropped out were more likely to be black, to have dropped out of high school, and were less closely attached to the child's mother at the time of birth.

Variables

Fathers' well-being. We used a series of indicators of fathers' well-being that fall broadly into three categories: *health and mental health*, *social integration*, and *economic activity*. Unless otherwise noted, each well-being indicator was reported by fathers and measured identically across the 1-, 3- and 5-year surveys. With respect to our first category of outcome measures—*health and mental health*, fathers provided their general self-reported health status as ranging from *poor* (1) to *excellent* (5). For mental health, consistent with prior research using the Fragile Families data (Meadows, McLanahan, and Brooks-Gunn 2008), we created a composite measure of three mental health problems, based on fathers' affirmative responses about: depression, drug use, and whether alcohol and/or drug use interfered with life. Depression was measured using the Composite International Diagnostic Interview Short Form (CIDI-SF). Fathers who reported feelings of depression or an inability to enjoy things that were normally pleasurable that lasted for a two-week period—and reported three or more depressive symptoms (e.g., losing interest in things, feeling worthless)—were considered to be at risk of

depression. Drug use was measured by fathers' affirmative response to any illicit drug use (e.g., marijuana, cocaine). The third item in our composite measure reflected whether "drinking or using drugs interfered with [his] personal relationships" or "how [he] manage[s] on a day-to-day basis" at year 1. Fathers answered comparable questions in the 3- and 5- year surveys: Did "drinking or being hung over" or use of a specified illicit substance "ever interfere with [his] work at school, or at job, or at home"?

Parental stress/aggravation was measured by an average of the extent to which fathers agreed with the following four statements: (a) "Being a parent is harder than I thought it would be"; (b) "I feel trapped by my responsibilities as a parent"; (c) "I find that taking care of my child(ren) is much more work than pleasure"; and (d) "I often feel tired, worn out, or exhausted from raising a family." Response choices ranged from *strongly disagree* (1) to *strongly agree* (4), with higher scores indicating more stress/aggravation. For work-family stress, respondents reported how likely the following work-related scenarios were to occur: (a) "My shift and work schedule causes extra stress for me and my child"; (b) "Where I work, it is difficult to deal with child care problems during working hours"; and (c) "In my work schedule I have enough flexibility to handle family". Response choices ranged from 1 (*rarely*) to 4 (*always*); responses were averaged, with higher scores indicating higher levels of stress.

The *social integration* outcomes highlight fathers' personal connections and social networks. First, fathers described the quality of their relationship with the child's biological mother, using a metric that is relevant whether fathers live with or away from the mother (i.e., does not depend on having a romantic relationship). Fathers indicated whether the relationship was *poor* (1), *fair* (2), *good* (3), *very good* (4), or *excellent* (5). Fathers also indicated their degree of perceived social support by indicating if they could count on someone to: (a) Loan them \$200, (b) Loan them \$1000, (c) Provide them with a place to stay, (d) Provide them with emergency childcare, (e) Co-sign a loan for \$1,000, or (f) Co-sign a loan for \$5,000. Affirmative responses were summed such that the measure of perceived social support

ranged from 0 to 6. Religious service attendance was measured by how often the father reported that he attended religious services, ranging from *never* (1) to *more than once a week* (5).

The two *economic activity* outcomes were hours worked per week and the natural log of annual earnings from all jobs (in 2005 dollars). If the respondent reported that he did not work since the birth of the child or in the past year, hours worked per week and annual earnings were coded as zero. At some waves (or if the father reported that he “didn’t know” his exact earnings), respondents reported earnings as a range of values. These ranges were converted to corresponding median values within categories. As a direct question about total earnings from all jobs was not asked of all respondents at the 1-year survey, we imputed the missing observations with a series of predictor variables: currently employed, weeks worked per year, relationship status, race, education, immigrant status, and ever incarcerated.

Fathers’ involvement. We used several measures of father involvement that were reported similarly across the 1-, 3- and 5-year surveys. We used mothers’ reports of fathers’ involvement in order to avoid inflated associations due to “shared method variance” by using the same individual to report on both the independent and dependent variables (Marsiglio, Amato, Day, and Lamb 2000). For both resident and non-resident fathers, mothers reported how often the father *spent one or more hours a day* with the child in the past month, ranging from 1 (*never*) to 5 (*every day*). *Paternal engagement in father-child activities* was the mean number of days (0-7) that the father did each of four activities with the child in the past week: singing, reading stories, telling stories, and playing with toys. Fathers’ *shared responsibility* for child-related tasks was based on mothers’ reports about how often the father (a) “Looks after [child] when you need to do things,” (b) “Runs errands like picking things up from the store,” and (c) “Takes [child] places (he/she) needs to go, such as to daycare or the doctor.” Response choices ranged from *never* (1) to *often* (4), with higher average scores indicating greater shared responsibility. Several additional measures of fathers’ time with children were available for non-resident fathers. Mothers reported the *number of days fathers saw the child* in the past month, ranging from 0 to

30. Also, mothers indicated the *number of overnight visits* the child had with the father in the past year, ranging from *never* (1), *1-3 nights* (2), *4-11 nights* (3), *12-24 nights* (4), to *more than 25 nights* (5).

Covariates. In order to properly estimate the effect of fathers' involvement on fathers' well-being, we included a number of covariates (reported by fathers unless otherwise noted) that have been linked with fathers' involvement and well-being (Knoester and Eggebeen 2006). Fathers' age at birth was self-reported in years. Fathers' race/ethnicity was specified as non-Hispanic White (reference), non-Hispanic Black, Hispanic, and non-Hispanic 'other' race. Immigrant status indicated that the father was born outside the U.S. Fathers' family background was represented by a dichotomous variable for whether he lived with both of his biological parents at age 15. Additional controls gauged fathers' fertility history and social-psychological characteristics. The total number of biological children the father has had with the focal child's mother was based on mothers' reports. The mother also indicated if the father had previous children with another woman (multi-partnered fertility). A dummy variable indicated if the father had ever been incarcerated by year 1, based on mothers' and fathers' reports combined. We also included measures of father attitudes towards fathering. Fathers identified if they *strongly disagree* (1) to *strongly agree* (4) with the following statements: (a) "Being a father and raising children is one of the most fulfilling experiences a man can have"; (b) "I want people to know that I have a new child"; and (c) "Not being a part of my child's life would be one the worst things that could happen to me;" responses were averaged, and higher scores indicated more positive attitudes.

Several child characteristics were also included. A dummy variable indicated whether the child is a boy. Mothers reported the child's 'difficult' temperament with the Emotionality, Activity, Sociability, and Impulsivity (EASI) scale at year 1 (Buss and Plomin 1984). Mothers indicated if three statements reflected the behaviors of their child from 1 (*not at all like my child*) to 5 (*very much like my child*) scale: (a) "he/she often fusses and cries," (b) "he/she gets easily upset," and (c) "he/she reacts strongly when upset"; responses were averaged, and higher scores indicated more difficult temperaments.

We included some additional baseline controls in models predicting particular well-being outcomes. Baseline health and depression measures were included in all models except those predicting health and mental health outcomes. Baseline self-reported health ranged from *poor* (1) to *excellent* (5). Depression at baseline was the average number of days per week that fathers experienced seven symptoms (e.g., had trouble getting to sleep, felt lonely), based on a brief version of the Center for Epidemiologic Studies Depression Scale (CES-D) (Ross and Mirowsky 1984). Religious service attendance (included in all models except social integration) ranged from *never* (1) to *more than once a week* (5). Fathers' baseline earnings (included in all models except economic activity) were represented by three categories: < \$10,000 (reference), \$10-25,000, and >\$25,000.

We also included several time-varying variables that may have important effects on fathers' involvement and well-being. Parents' education was based on categories of less than high school, high school degree or equivalent, some college, or bachelor's degree or higher. Relationship status was represented by different binary variables for resident and non-resident fathers. If the father and mother were co-residing, we included a variable indicating being legally married (as opposed to cohabiting). For non-resident fathers, we included a dummy variable indicating if the father was dating the focal child's mother and a dummy variable indicating if the father was involved in a romantic relationship with a new partner. For resident fathers, we included two additional variables—whether the child's grandmother lived with the family, and the hours that the mother worked per week, both based on mothers' reports.

Analytic Strategy

We used two primary analytic techniques (with pooled data across the 1-, 3-, and 5-year surveys). First, we estimated random effects models to examine how the level of fathers' involvement was associated with fathers' well-being—considering variation both between and within fathers; these models included both time-constant and time-varying variables. Second, we estimated fixed effects models to examine how *changes* in father involvement among the same men over time were associated

with increases or decreases in their well-being. Fixed effect models included only time-varying variables (since time-constant variables were automatically dropped). This more conservative technique reduces bias by controlling for unobserved individual time-invariant characteristics that may be associated with fathers' involvement and well-being (Greene 2003; Snijders 2005). As noted above, we estimated separate models for resident and non-resident fathers, pooling cases based on their residence status at each wave. Given the correlations across father involvement items (.42-.85 for non-resident fathers and .11-.38 for resident fathers), we estimated separate models for each father involvement measure.

Sample Description

Table 1 shows the time-invariant characteristics of our sample, by residence status at the 1-year survey. Resident fathers were about five years older than non-resident fathers at the time of their child's birth – 31 years versus 26 years. Resident fathers were rather evenly divided by race/ethnicity – about one-third each were White, Black and Hispanic, while non-resident fathers were predominately Black (two-thirds) and Hispanic (one-sixth). Resident fathers were more likely to have lived with both biological parents at age 15 (63% versus 36%). Most fathers indicated that their health was *very good*, and most fathers attended church close to *several times a year*. Annual earnings of resident fathers were much higher than those for non-resident fathers. Mean depression scores for both groups were low, but non-resident fathers were much more likely to have been incarcerated (41%) than resident fathers (13%). Attitudes toward fathering were slightly more positive among resident fathers. With respect to fertility history, non-resident fathers were much more likely to have had a child by a prior partner—fully half, compared to 22% of resident fathers, while resident fathers had a higher average total number of children with the focal child's mother—1.73 compared to 1.41 for non-resident fathers.

Means on the time-varying characteristics are shown in Table 2, by residence status at each wave. The composition of resident and non-resident fathers changes over time, as an increasing number of couples break up. Thus, changes in characteristics across waves reflect both changes in the

characteristics of fathers who *remain* in a given status, as well as changes due to fathers moving from resident to non-resident status (and a small number of cases moving from non-resident to resident status). Resident fathers had much higher education than non-resident fathers. At 1 year, 70% of resident fathers were married to the focal child's mother. By year 5, this fraction had increased to 82%, as a greater share of cohabiting than married parents broke up over time. For non-resident fathers, 17% were dating the focal child's mother at 1 year, declining to 6% by year 5; at 1 year, 33% of non-resident fathers were involved with a new partner, rising to 48% by year 5. Mothers living with fathers worked an average of 22-24 hours per week. For 11% of resident fathers at 1 year, the child's grandmother was living in the household, declining to 7% at year 5.

Results

We begin by describing the means on our father involvement measures (Table 3) and our fathers' well-being measures (Table 4). For the three involvement measures that are available for both resident and non-resident fathers, fathers who lived with their children had consistently higher levels of involvement. At year 1, the average frequency that non-resident fathers spent at least one or more hours with child in the previous month was about two-thirds that of resident fathers (mean of 3.01 versus 4.80); this gap increased over time due to declines in non-resident father involvement. Resident fathers, on average, spent one or more hours with the child *a few times a week to every day*, whereas non-resident fathers averaged less than *a few times a month*. For both resident and non-resident fathers, the average number of days per week that fathers engaged with their children in developmental activities waned across surveys. Still, average engagement for resident fathers was more than twice that of non-resident fathers. Sharing responsibility for child-related tasks stayed about the same over time for resident fathers but decreased for non-resident fathers. With respect to the frequency of non-resident father contact, the average number of days that fathers saw their child declined across surveys, from

about 12 days at 1 year to about 8 days at 5 years. Non-resident fathers averaged between 4-10 and 11-24 overnight visits in the past year across all of the survey waves.

With respect to the means on the well-being indicators (Table 4), we found that most fathers (both resident and non-resident) reported their health as *very good* across surveys. Mental health problems were somewhat lower for resident fathers (.12-.17) compared to non-resident fathers (.27-.45). Levels of parental stress and aggravation were moderate for both groups (around 2 on the 1-to-4 scale). As we would expect, resident fathers reported higher relationship quality with mothers (between *very good* and *excellent*) compared to non-resident fathers (around *good*). Perceived social support was also somewhat higher among resident fathers, with most endorsing about 5 social support items, compared to about 4 for non-resident fathers. Resident fathers were slightly more likely to attend religious services, but both groups averaged just over *several times a year*. Resident fathers also had higher work hours—around 45-46 hours per week, compared to 37-40 for non-resident fathers. Resident fathers also had substantially higher earnings across all waves than non-resident fathers, and the gap grew over time. At year 1, the mean earnings of non-resident fathers approached two-thirds that of resident fathers (\$20,000 vs. \$35,000), but this ratio was less than half by year 5 (\$22,000 vs. \$51,000).

Turning to our multivariate results, Table 5 shows random and fixed effects regression results for all of our outcome measures. For resident fathers, there appeared to be no association between greater involvement and physical health. Spending more time with the child and greater shared responsibility were associated with less adverse mental health for resident fathers in the random effects models; these effects were modest (5% and 8% of the mean standard deviation) and not statistically significant in the more conservative fixed effects models. We found a small but significant relationship between shared responsibility and lower levels of stress/aggravation for resident fathers in the random effects model (that was marginally significant in the fixed effects models). With respect to work-family stress, there was a significant negative relationship, indicating that spending time and sharing responsibility were

linked to lower stress; the effect of shared responsibility persisted in the fixed-effect models, but again, the effect sizes were modest, the largest being about 10% of a mean standard deviation.

For non-resident fathers, involvement was not linked to paternal health, but there were some significant relationships between involvement and the mental health and stress outcomes. Spending time, engaging in activities, and shared responsibility were negatively related to adverse mental health, although these effects were modest and disappeared in the fixed-effect models. Regarding parental stress, an upward categorical shift in overnight visits (e.g., never to 1-3 nights in the past year) was associated with a .03 decline in parental stress (about 4% of a mean standard deviation). Engagement in activities, shared responsibility, and overnight visits were each positively and significantly related to work-family stress in the random effect models, and paternal engagement was statistically significant in the fixed effects models. A one-unit change in the measure of engagement was associated with an increase of .05 in work-family stress (about 5% of a mean standard deviation).

Our social integration outcomes are shown in the second panel of Table 5. For resident fathers, greater involvement appeared to increase fathers' perception of the quality of relationship with mothers. In the random effects models, greater time, engagement and responsibility were all linked to improved relationship quality; the largest effect size was for shared responsibility – about one-sixth of a mean standard deviation. In the fixed effects models, increases in engagement and responsibility were also associated with improved relationship quality, providing greater evidence that increasing involvement may have a causal effect on the mother-father relationship. There were few significant relationships between involvement and the other measures of social integration. A one-unit increase in paternal engagement in activities was associated with a small and significant decline in perceived social support. Spending time was negatively associated with religious service attendance in the random effects model but not in the fixed effects model.

For non-resident fathers, there were more consistent associations between father involvement and the social integration outcomes, although again, the magnitudes were generally small. Greater father involvement was associated with fathers' perception of the quality of relationship with the biological mother, particularly in the fixed effects models, where each fathering measure was (at least marginally) significantly linked with better quality relationships. For perceived social support, shared responsibility and overnight visits were positively related to the outcome in the random effects models, but these effects disappeared or were marginally significant, respectively, in the fixed effects models, suggesting that some of the differences were between fathers. For religiosity, non-resident fathers' involvement was associated with slightly *lower* levels of religious attendance across all of the random effects models, but only shared responsibility persisted in the fixed-effect models at a statistically significant level; again, the effect size was relatively modest (approximately 6% of a mean standard deviation).

Turning to the economic activity outcomes (last panel), for resident fathers, spending more time, greater engagement, and shared responsibility were each associated with fewer hours of work in the labor market. Shared responsibility had the largest estimate: A one-unit increase was associated with a more than an hour decline in hours worked per week. However, the estimates diminished in the fixed-effect models and were no longer significant. Engagement in parent-child activities was linked to reduced earnings of resident fathers in both the random and fixed effects models: a one-unit increase was associated with a 3% decline in average earnings.

For non-resident fathers, by contrast, greater father involvement was associated with more hours worked, but the positive effect disappeared in the fixed effects models. For earnings, we found positive associations between involvement and earnings in the random effects models. In the fixed effects models, the estimates for spending time and days saw in the past month remained significant. A one-unit increase in spending time was associated with a 9% increase in fathers' average earnings, and seeing the child one more day per month was linked with a 1% increase in earnings.

In a series of supplemental analyses, we considered several variations on our main analyses. First, we were interested in whether the relationship between father involvement and father well-being varied by the birth order of the focal child. Overall, we found few notable differences between first-time fathers and those with prior children, with some exceptions: For both resident and non-resident fathers, greater involvement appeared to be more strongly related to mother-father relationship quality for fathers with prior children than for those having a first birth. For resident fathers, involvement was more strongly (negatively) related to work hours—and for non-resident fathers, involvement was more strongly (positively) related to earnings—for men who have prior children than for first-time fathers.

Second, we re-estimated our analyses using fathers' reports of involvement for the two measures where such were available—engaging in activities for resident and non-resident fathers and the number of days the father saw the child in the past month for non-resident fathers. While some of the point estimates were slightly larger and more statistically significant using fathers' reports, they remained of small magnitude, and most did not persist in the more conservative fixed effects models.

Discussion

In this paper, we have evaluated how fathers' involvement (time with children, engagement in father-child activities, and shared responsibility) is linked to fathers' well-being with respect to health and mental health, social integration, and economic activity outcomes. We examined both resident and non-resident fathers from the Fragile Families and Child Wellbeing Study—a recent urban birth cohort, using data across three survey waves over years 1, 3 and 5 after a baby's birth. We extend the literature that has mostly focused on how *fatherhood* is linked to men's well-being (e.g., Eggebeen and Knoester 2001; Knoester and Eggebeen 2006) to consider how *levels of involvement* among fathers may be associated with well-being. Also, unlike prior research, we evaluated resident and non-resident fathers separately, given that living with versus away from one's child reflects very different affective and structural contexts in which men are enacting the father role. We used random effects models that

account for both between- and within-father variation along with fixed effects models, which are more conservative because they use only within-father variation.

Overall, we found that father involvement (across all three domains) was sometimes—but not consistently—related to (some of) the father well-being outcomes for both resident and non-resident fathers. Father involvement seemed to be least related to the health and mental health outcomes. The most persisting (but modest) association in this outcome domain was found for work-family stress – and in opposite directions for resident versus non-resident fathers: Greater involvement was linked with lower work-family stress for resident fathers but higher stress for non-resident fathers.

We found greater evidence that fathers' involvement was associated with fathers' social integration, especially for non-resident fathers. For both resident and non-resident fathers, involvement—with respect to spending time, engaging in father-child activities, and shared responsibility—was linked with improved relationship quality with the focal child's mother. Since we were using different reporters for fathers' involvement (mothers) and the mother-father relationship (fathers), our estimates do not simply reflect shared variance across the same individual—a concern when a single reporter is used to report on the independent and dependent variables (Marsiglio et al. 2000). We suspect that for fathers living with mothers (and the child), their greater involvement strengthens social capital within the family, consistent with the notion of the 'package deal' that circumscribes men's partner and parent relationships (Furstenberg and Cherlin 1991; Townsend 2002). For fathers living away from the child, the associations between involvement and relationship quality are even stronger (with significant estimates across all fixed effects models). Fathers' greater time, engagement and shared responsibility appears to improve how they perceive the relationship with the focal child's mother, as mothers likely appreciate fathers' willingness to 'share the load' in rearing their common child. It is important to note, however, that our results cannot identify the direction of the association, and prior work suggests that cooperative co-parenting (for non-resident fathers) and couple

relationship quality (for resident parents) predict paternal involvement more than vice versa (Carlson, McLanahan, and Brooks-Gunn 2008; Carlson, Pilkauskas, McLanahan, and Brooks-Gunn 2009).

There was only modest evidence that involvement is linked to perceived social support or religious attendance for resident fathers, but the estimates were more consistent for non-resident fathers. Shared responsibility and overnight visits were significantly linked with higher perceived social support in the random effects models, although again, the magnitudes were small. With respect to religious attendance, greater involvement by non-resident fathers – across all five measures of involvement – predicted slightly lower religious attendance in the random effects models. This may be because outside of the two-parent family unit, fathers may be less likely to spend their precious weekend time with children attending religious services.

With respect to the economic activity outcomes, we found some (but not strong) evidence that for resident fathers, there is a negative relationship between paternal involvement and employment and earnings, consistent with prior research about men who live with their own children (Eggebeen and Knoester 2001; Knoester and Eggebeen 2006). Among fathers in two-parent families, their involvement with children and their investment in market work appear to be substitutes – as one goes up the other goes down. By contrast, for non-resident fathers, time spent with children (hours, days, or overnight visits) was associated with higher hours worked, and fathers' involvement was positively related to annual earnings. Thus, for non-resident fathers, time investment in children and market work appear to be complements. It could be that as fathers spend more time with children, they have greater incentive to earn money in order to provide for them financially; consistent with one paper which shows that becoming more involved leads to higher hours worked and earnings (Lerman and Sorenson 2000) and another paper finding a positive link between informal child support payments and father-child contact (Nepomnyaschy 2007). On the other hand, this could reflect reverse causality such that the more earnings fathers have, the more 'credibility' they may have as a provider (in their own eyes or the eyes

of mothers) and hence will want (or be encouraged) to spend more time with children (Danziger and Radin 1990; Furstenberg 1995). The causal relationship between fathers' involvement and earnings likely goes in both directions (Lerman and Sorenson 2000), and our estimates cannot disentangle directionality; this is a useful topic for future work.

An important question is whether father involvement has a *causal* effect on fathers' well-being, or whether simply the men who are highly involved also have higher well-being *ex ante*. Where sizeable estimates using multiple measures of father involvement persist in the fixed effects models (that better address unobserved heterogeneity), we feel more confident that there may be a causal effect. This is particularly the case for how fathers' involvement is linked to the relationship with the mother (positive for both resident and non-resident fathers) and to earnings for non-resident fathers (positive). At the same time, because fixed effects models are less efficient, the estimates are less likely to reach statistical significance; thus, we may be under-estimating the true effects by emphasizing the fixed effects results.

While we believe our research adds to the literature about how father involvement affects men's own well-being, there are several limitations worth noting. First, as with all quantitative surveys, one must be mindful of concerns about response rates and attrition. By using a hospital-based design, the Fragile Families Study was able to attain higher response rates than other studies of fathers, who are typically under-represented in national surveys (Garfinkel, McLanahan, and Hanson 1998; Nelson 2004). At the same time, about one-quarter of fathers were not interviewed at the 1-year survey, and of those, about 24% were lost to attrition by the 5-year follow-up survey. We know that attrition is not random, and those who drop out are more likely to be racial/ethnic minorities and have lower socioeconomic resources than those who remain in the study. Therefore, our results cannot be generalized to the fathers who, we suspect, are least involved with their children and likely also have the lowest levels of well-being. At the same time, since our question is about the implications of paternal *involvement*, our research is not salient to fathers who are not involved with their children.

Second, we evaluated three key domains of father involvement that have been identified as important in the literature—time, engagement and responsibility (Lamb et al., 1985), but we recognize that fathers may be involved in other ways that we are not measuring here. For example, for non-resident fathers, we did not measure any communication from afar such as telephone calls, cards/letters or email, nor did we consider child support contributions.

A third limitation concerns our use of mothers' reports of fathers' involvement with children. We used mothers' reports in our main analyses to avoid using the same reporter for both the independent and dependent variables, but we recognize that mothers may not have accurate information about the frequency and content of fathers' involvement, especially for non-resident fathers (Coley and Morris 2002; Seltzer and Brandreth 1995). Our similar findings in the supplemental analyses using fathers' reports were reassuring that our primary results were not driven by the use of maternal reports.

Fourth, as noted above, our analyses cannot determine the direction of association between the involvement measures and well-being. This would be a useful topic for future investigation.

In spite of these limitations, this research adds to our understanding of how fathering behaviors are associated with men's own well-being, which to our knowledge has received limited attention. Our results suggest that greater involvement in young children's lives is linked to some benefits for men's well-being, particularly with respect to social integration. Future research can consider a wider array of well-being measures and can evaluate how involvement affects well-being when children are older and require different types of paternal investment.

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Table 1. Sample Descriptives, by Fathers' Co-Residence Status at 1 Year

| | Co-Residence Status | | | |
|--|---------------------|---------------|---------------|---------------|
| | Resident | | Non-Resident | |
| | <i>M</i> or % | (<i>SD</i>) | <i>M</i> or % | (<i>SD</i>) |
| <u>Background variables</u> | | | | |
| <i>Father characteristics</i> | | | | |
| Age at child's birth | 30.54 | (6.86) | 25.94 | (7.73) |
| Race | | | | |
| White, non-Hispanic | 32.3 | | 8.7 | |
| Black, non-Hispanic | 28.1 | | 66.4 | |
| Hispanic | 34.1 | | 18.6 | |
| Other, non-Hispanic | 5.6 | | 6.3 | |
| Foreign born | 31.0 | | 9.8 | |
| Lived with both parents at 15 | 62.5 | | 36.4 | |
| Physical health | 4.01 | (.94) | 3.96 | (1.04) |
| Religious service attendance | 3.00 | (1.42) | 2.67 | (1.41) |
| Annual Earnings | | | | |
| < 10k | 18.7 | | 39.4 | |
| 10-25k | 32.3 | | 31.6 | |
| > 25k | 49.0 | | 29.1 | |
| Depression (CES-D) | (.94) | (1.10) | 1.49 | (1.51) |
| Ever Incarcerated (mother report) ¹ | 13.2 | | 40.9 | |
| <i>Child Characteristics</i> | | | | |
| Baby is a boy (mother report) | 55.1 | | 50.5 | |
| EASI 'difficult' temperament (range=1-5, mother report) ¹ | 2.62 | (.96) | 2.90 | (1.13) |
| <u>Father Social/psychological variables</u> | | | | |
| <i>Father characteristics</i> | | | | |
| Positive fathering attitudes (range=1-4) | 3.79 | (.39) | 3.52 | (.63) |
| Has previous child by other partner (mother report) ¹ | 22.1 | | 51.5 | |
| Total number of children with child's biological mother ¹ | 1.73 | (.98) | 1.41 | (.80) |
| Weighted percent of sample | | | | |
| Unweighted number of cases (<i>n</i>) | 2,336 | | 895 | |

Note: Based on fathers' reports unless indicated. All figures are weighted by city sampling weight
M = mean; SD = standard deviation.

¹Reported at year-1 follow-up survey

Table 2. Time-Varying Covariates, by Fathers' Co-Residence Status at Survey

| | 1-Year | | 3-Year | | 5-Year | |
|--|---------------|---------|---------------|---------|---------------|---------|
| | <i>M or %</i> | (SD) | <i>M or %</i> | (SD) | <i>M or %</i> | (SD) |
| Resident Fathers (%) | 83.8 | | 78.9 | | 69.3 | |
| Father's Educational Attainment | | | | | | |
| Less than high school | 23.7 | | 23.8 | | 20.7 | |
| High school diploma or GED | 23.3 | | 22.5 | | 19.0 | |
| Some college | 24.5 | | 23.2 | | 23.4 | |
| College or graduate degree | 28.5 | | 30.5 | | 36.8 | |
| Relationship Status (mother report) | | | | | | |
| Married to biological mother | 70.4 | | 77.1 | | 82.2 | |
| Mother's Educational Attainment (mother report) | | | | | | |
| Less than high school | 22.1 | | 21.3 | | 20.1 | |
| High school diploma or GED | 31.1 | | 29.4 | | 27.8 | |
| Some college | 21.6 | | 22.0 | | 21.4 | |
| College or graduate degree | 25.2 | | 27.3 | | 30.8 | |
| Hours per week worked by mother (mother report) | 21.82 | (19.93) | 24.37 | (20.79) | 23.10 | (19.91) |
| Grandmother lived with focal child (mother report) | 11.2 | | 7.5 | | 7.1 | |
| Unweighted number of resident cases (<i>n</i>) | 2,336 | | 2,025 | | 1,677 | |
| Non-Resident Fathers (%) | 16.2 | | 21.1 | | 30.8 | |
| Father's Educational Attainment | | | | | | |
| Less than high school | 32.2 | | 33.6 | | 37.9 | |
| High school diploma or GED | 36.8 | | 33.7 | | 31.0 | |
| Some college | 27.1 | | 26.7 | | 26.8 | |
| College or graduate degree | 4.0 | | 6.0 | | 4.4 | |
| Relationship Status | | | | | | |
| Dating biological mother (mother report) | 17.4 | | 7.8 | | 5.8 | |
| Romantic relationship with new partner | 33.3 | | 42.0 | | 48.1 | |
| Mother's Educational Attainment (mother report) | | | | | | |
| Less than high school | 40.3 | | 28.3 | | 30.3 | |
| High school diploma or GED | 30.9 | | 36.0 | | 32.0 | |
| Some college | 26.7 | | 30.5 | | 33.7 | |
| College or graduate degree | 2.1 | | 5.3 | | 4.1 | |
| Unweighted number of non-resident cases (<i>n</i>) | 895 | | 1,087 | | 1,272 | |
| Overall number of unweighted cases (<i>n</i>) | 3,231 | | 3,112 | | 2,949 | |

Note: Based on fathers' reports unless indicated. All figures are weighted by city sampling weights. M = mean; SD = standard deviation.

Table 3. Father Involvement Variables, By Fathers' Co-Residence Status at Survey

| | 1-Year | | 3-Year | | 5-Year | |
|--|--------|---------|--------|---------|--------|---------|
| | M | (SD) | M | (SD) | M | (SD) |
| Resident fathers | | | | | | |
| Spent One or More Hours in Past Week (range=1-5) | 4.80 | (.55) | 4.76 | (.60) | 4.79 | (.51) |
| Engagement in Activities (range=0-7) | 3.89 | (1.82) | 3.76 | (1.98) | 3.28 | (1.71) |
| Sharing Responsibility (range=1-4) | 3.46 | (.58) | 3.49 | (.57) | 3.56 | (.53) |
| Unweighted number of resident cases (<i>n</i>) | 2,336 | | 2,025 | | 1,677 | |
| Non-Resident fathers | | | | | | |
| Spent One or More Hours in Past Week (range=1-5) | 3.01 | (1.62) | 2.77 | (1.59) | 2.70 | (1.58) |
| Engagement in Activities (range=0-7) | 1.58 | (1.87) | 1.32 | (1.68) | 0.93 | (1.46) |
| Sharing Responsibility (range=1-4) | 2.18 | (1.08) | 2.03 | (1.09) | 1.86 | (.99) |
| Number of Days Saw Child Past Month (range=0-30) | 11.58 | (11.96) | 9.67 | (11.18) | 8.24 | (10.25) |
| Overnight Visits (range=1-5) | 2.38 | (1.61) | 2.77 | (1.75) | 2.66 | (1.78) |
| Unweighted number of non-resident cases (<i>n</i>) | 895 | | 1,087 | | 1,272 | |
| Overall number of unweighted cases (<i>n</i>) | 3,231 | | 3,112 | | 2,949 | |

Note: Based on mothers' reports. All figures are weighted by city sampling weights. M = mean; SD = standard deviation

Table 4. Means on Fathers' Wellbeing Indicators, by Fathers' Co-Residence Status at Survey

| | 1-Year | | 3-Year | | 5-Year | |
|--|-----------|------------|-----------|------------|-----------|------------|
| | <i>M</i> | (SD) | <i>M</i> | (SD) | <i>M</i> | (SD) |
| Resident fathers | | | | | | |
| <i>Health and Mental Health</i> | | | | | | |
| Self Reported Health (range=1-5) | 4.01 | (.96) | 4.00 | (.98) | 3.99 | (.89) |
| Mental Health Problems (range=0-3) | .16 | (.43) | .17 | (.45) | .12 | (.40) |
| Parental Stress/Aggravation (range=1-4) | 2.04 | (.69) | 2.13 | (.75) | 2.00 | (.69) |
| Work-Family Stress (range=1-4) | 1.71 | (.93) | 1.69 | (.82) | 1.61 | (.94) |
| <i>Social Integration</i> | | | | | | |
| Relationship with Biological Mother (range=1-5) | 4.22 | (.93) | 4.28 | (.83) | 4.28 | (.85) |
| Perceived Social Support (range=0-6) | 4.64 | (1.79) | 4.80 | (1.60) | 5.02 | (1.55) |
| Religious Service Attendance (range=1-5) | 3.44 | (1.42) | 3.58 | (1.42) | 3.61 | (1.41) |
| <i>Economic Activity</i> | | | | | | |
| Hours Worked per Week | 45.62 | (15.24) | 44.47 | (17.46) | 45.57 | (16.56) |
| Annual Earnings (2005 Dollars) | 34,753.59 | (18617.09) | 46,938.32 | (42232.03) | 51,035.41 | (47383.40) |
| Unweighted number of resident cases (<i>n</i>) | 2,336 | | 2,025 | | 1,677 | |
| Non-Resident fathers | | | | | | |
| <i>Health and Mental Health</i> | | | | | | |
| Self Reported Health (range=1-5) | 4.03 | (1.08) | 3.94 | (1.09) | 3.77 | (1.07) |
| Mental Health Problems (range=0-3) | .37 | (.64) | .45 | (.73) | .27 | (.56) |
| Parental Stress/Aggravation (range=1-4) | 2.06 | (.74) | 2.15 | (.74) | 2.11 | (.80) |
| Work-Family Stress (range=1-4) | 1.48 | (.80) | 1.43 | (.74) | 1.47 | (.77) |
| <i>Social Integration</i> | | | | | | |
| Relationship with Biological Mother (range=1-5) | 2.99 | (1.37) | 3.28 | (1.24) | 2.90 | (1.18) |
| Perceived Social Support (range=0-6) | 4.13 | (1.81) | 3.84 | (1.84) | 3.96 | (1.88) |
| Religious Service Attendance (range=1-5) | 3.01 | (1.51) | 3.31 | (1.47) | 3.31 | (1.37) |
| <i>Economic Activity</i> | | | | | | |
| Hours Worked per Week | 40.46 | (22.08) | 36.77 | (25.04) | 36.48 | (23.81) |
| Annual Earnings (2005 Dollars) | 19,662.15 | (15141.23) | 20,193.27 | (17205.46) | 22,385.35 | (23109.31) |
| Unweighted number of non-resident cases (<i>n</i>) | 895 | | 1,087 | | 1,272 | |
| Overall number of unweighted cases (<i>n</i>) | 3,231 | | 3,112 | | 2,949 | |

Note: Based on fathers' reports. All figures are weighted by city sampling weights. *M* = mean; *SD* = standard deviation.

Table 5. Multivariate Results: Father Involvement and Fathers' Wellbeing Outcomes

| | Health and Mental Health | | | | Social Integration | | | | Economic Activity | | | |
|----------------------|-----------------------------|-------|---------------|-------|-------------------------------------|-------|---------------|-------|---|-------|---------------|-------|
| | Random Effects | | Fixed Effects | | Random Effects | | Fixed Effects | | Random Effects | | Fixed Effects | |
| | β | (SE) | β | (SE) | β | (SE) | β | (SE) | β | (SE) | β | (SE) |
| Resident Fathers | | | | | | | | | | | | |
| | Physical Health | | | | Relationship with Biological Mother | | | | Hours Worked per Week | | | |
| Spent 1+ hours | .01 | (.02) | .01 | (.02) | .08 ** | (.02) | .02 | (.02) | -.63 + | (.34) | -.35 | (.44) |
| Engagement | .01 | (.01) | .00 | (.01) | .04 ** | (.01) | .02 * | (.01) | -.55 ** | (.13) | -.23 | (.18) |
| Responsibility | .03 | (.02) | .02 | (.03) | .16 ** | (.02) | .06 * | (.03) | -1.17 ** | (.41) | -.34 | (.62) |
| | Mental Health | | | | Perceived Social Support | | | | Natural Log of Annual Earnings (2005 Dollars) | | | |
| Spent 1+ hours | -.02 + | (.01) | -.02 | (.01) | .00 | (.03) | -.04 | (.03) | .02 | (.02) | .02 | (.02) |
| Engagement | .00 | (.00) | .00 | (.00) | -.02 | (.01) | -.03 * | (.01) | -.03 ** | (.01) | -.03 ** | (.01) |
| Responsibility | -.03 * | (.01) | -.03 | (.02) | .00 | (.04) | .00 | (.04) | -.02 | (.02) | -.03 | (.03) |
| | Parental Stress/Aggravation | | | | Religious Service Attendance | | | | | | | |
| Spent 1+ hours | -.02 | (.01) | .00 | (.02) | -.05 * | (.02) | -.04 | (.03) | | | | |
| Engagement | -.01 | (.00) | .00 | (.01) | .01 | (.01) | .00 | (.01) | | | | |
| Responsibility | -.04 ** | (.02) | -.04 + | (.02) | .01 | (.03) | .01 | (.04) | | | | |
| | Work-Family Stress | | | | | | | | | | | |
| Spent 1+ hours | -.05 ** | (.02) | -.04 | (.02) | | | | | | | | |
| Engagement | -.01 | (.01) | .00 | (.01) | | | | | | | | |
| Responsibility | -.09 ** | (.02) | -.08 * | (.03) | | | | | | | | |
| Non-Resident Fathers | | | | | | | | | | | | |
| | Physical Health | | | | Relationship with Biological Mother | | | | Hours Worked per Week | | | |
| Spent 1+ hours | -.01 | (.01) | .01 | (.02) | .08 ** | (.02) | .10 ** | (.03) | .76 ** | (.28) | .01 | (.49) |
| Engagement | .01 | (.01) | .01 | (.02) | .06 ** | (.01) | .06 * | (.03) | .28 | (.25) | .23 | (.45) |
| Responsibility | .02 | (.02) | .01 | (.03) | .15 ** | (.02) | .12 ** | (.04) | .77 + | (.41) | .47 | (.70) |
| Days saw past month | .00 | (.00) | .00 | (.00) | .01 ** | (.00) | .01 * | (.00) | .11 ** | (.04) | .06 | (.06) |
| Overnight visits | .00 | (.01) | -.01 | (.02) | .02 | (.01) | .05 + | (.03) | .64 * | (.26) | .06 | (.47) |
| | Mental Health | | | | Perceived Social Support | | | | Natural Log of Annual Earnings (2005 Dollars) | | | |
| Spent 1+ hours | -.02 * | (.01) | -.01 | (.01) | .02 | (.02) | .01 | (.04) | .11 ** | (.02) | .09 ** | (.03) |
| Engagement | -.02 * | (.01) | -.02 | (.01) | .03 | (.02) | .01 | (.03) | .05 ** | (.01) | .03 | (.03) |
| Responsibility | -.02 * | (.01) | .00 | (.02) | .07 * | (.03) | .01 | (.05) | .10 ** | (.02) | .06 | (.04) |
| Days saw past month | .00 | (.00) | .00 | (.00) | .00 | (.00) | .00 | (.00) | .01 ** | (.00) | .01 ** | (.00) |
| Overnight visits | .00 | (.01) | .00 | (.01) | .05 * | (.02) | .06 + | (.03) | .06 ** | (.01) | -.02 | (.03) |
| | Parental Stress Aggravation | | | | Religious Service Attendance | | | | | | | |
| Spent 1+ hours | .00 | (.01) | .00 | (.02) | -.06 ** | (.02) | -.03 | (.03) | | | | |
| Engagement | .00 | (.01) | .01 | (.01) | -.04 ** | (.02) | -.05 + | (.02) | | | | |
| Responsibility | -.01 | (.01) | -.01 | (.02) | -.07 ** | (.03) | -.09 * | (.04) | | | | |
| Days saw past month | .00 | (.00) | .00 | (.00) | -.01 * | (.00) | .00 | (.00) | | | | |
| Overnight visits | .00 | (.01) | -.03 * | (.01) | -.03 + | (.02) | -.01 | (.03) | | | | |
| | Work-Family Stress | | | | | | | | | | | |
| Spent 1+ hours | .02 + | (.01) | .00 | (.02) | | | | | | | | |
| Engagement | .03 ** | (.01) | .05 ** | (.02) | | | | | | | | |
| Responsibility | .04 * | (.02) | .03 | (.03) | | | | | | | | |
| Days saw past month | .00 | (.00) | .00 | (.00) | | | | | | | | |
| Overnight visits | .02 * | (.01) | .02 | (.02) | | | | | | | | |

+ $p < .10$ * $p < .05$ ** $p < .01$