

A MATTER OF TIMING: AGE AT TRANSITION TO PARENTHOOD AND
FATHER INVOLVEMENT

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Draft paper for presentation at CDS-II Workshop on June 24 and 25, 2005. Please do not
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ABSTRACT

This study investigates whether the age of becoming a father is related to many kinds of involvement with children among married, resident fathers in the second wave of the Panel Study of Income Dynamics' Child Development Supplement ($n = 1114$ father-child pairs). Contrary to some prior literature, there is no association between fatherhood timing and the total amount of time fathers and children spend interacting. However, men who became parents at relatively late ages tend to be more involved in activities that are less normative. Social class, race, and differing beliefs about the value of investing time in children best explain why later-timing fatherhood is associated with some kinds of involvement. The results demonstrate the importance of studying many types of fathering, including those which are less developmentally critical.

In recent years, social scientists concerned with the well-being of children have produced a large and valuable body of work on a formerly neglected topic: the parenting of resident fathers. Much of this research has been guided by the concept of involvement. As defined by Lamb, Pleck, and co-authors (Lamb, Pleck, Charnov, and Levine 1987), involvement is a three-part construct consisting of direct interaction with a child, availability for interaction, and responsibility for meeting the child's day-to-day needs. Although it is possible for fathers to be involved with their children in inappropriate or harmful ways (Palkovitz 1997), an involved style of fathering usually has a wide variety of positive consequences (Amato 1998; Pleck 1997).

Given the benefits involvement has for children, a great deal of research has been concerned with identifying factors associated with it (Parke 1995; Pleck 1997). Taking a life course perspective (Elder 1994), one might ask whether the age at which men make the transition to fatherhood for the first time is related to involvement. The timing of becoming a parent increasingly differentiates fathers from one another. As recently as the 1970s in the United States, half of men who became fathers did so within the five-year interval between ages 22 and 27. In the 1990s, half of men became fathers between 23 and 32 – a nine year range.¹ This diversity seems likely to be related to involvement because men who make the transition to parenthood at different ages tend to bring different levels of resources (defined broadly to include economic resources, psychological dispositions, physical ability, and social capital) to the challenging task of fathering (Coltrane 1996; Daniels and Weingarten 1982).

¹Author's calculations based on the Panel Study of Income Dynamics' 1985-2001 Childbirth and Adoption History File.

This paper investigates the relationship between fatherhood timing and resident biological fathers' involvement with children age five and up. While there has been some past research on this topic, it has often addressed only a small portion of the possible ways men can be involved with their children. Another drawback of the existing literature is that with a few exceptions (Cooney, Pedersen, Indelicato, and Palkovitz 1993; Heath 1994), most of it has been based on small, non-representative groups of men, rather than national samples. This research makes use of the second wave of the Child Development Supplement (CDS-II) to the Panel Study of Income Dynamics (PSID), which is nationally representative after the application of appropriate weights. The CDS-II contains a remarkably broad variety of measures of father involvement, and also provides information on men's parenting of older children, which has been relatively understudied. Further, the CDS data can be paired with the PSID's high-quality male fertility data.

If later fatherhood is associated with at least some kinds of involvement, the next question is why this should be so. As the authors of one study have pointed out, if men who became fathers at different ages parent differently from one another, this is surely not because of the fact of timing itself, but rather because timing is a proxy for other sociological and psychological processes (Cooney, Pedersen, Indelicato, and Palkovitz 1993). Of a variety of possible explanations, which ones best explain why timing might matter? To answer this question, I employ a statistical test of mediation proposed by Clogg and co-authors (Clogg, Petkova, and Haritou 1995). This test permits an assessment of the extent to which the association between timing and involvement is

explained by time availability, attitudes toward parenting, men's partners' commitment to paid work, propensity to invest in children's development, and sociodemographic factors.

BACKGROUND

Birth Timing and Involvement: Past Findings

Broadly construed, there has been a sizeable literature written about the relationship between fatherhood timing and father involvement. Much of this work concerned teenage fathers who did not live with their children (e.g. Lerman 1993; McElroy and Moore 1997). Absent teen fathers, like other non-resident fathers, have not tended to be very involved (Furstenberg and Harris 1993).

Other scholars have asked whether timing is associated with involvement among resident fathers. It may seem strange to suggest there should be any relationship at all between the timing of becoming a father and men's involvement in parenting with children five and older. Even if men who become fathers at different ages are likely to exhibit different levels and patterns of involvement at first, perhaps the common experience of fatherhood attenuates the effect of birth timing as the years go by and children grow.

Contrary to this possibility, most authors have reported that later fatherhood is better. Although not all researchers have looked at fathers with older children, delaying the transition to parenthood until an older age has been found to be linked to greater subsequent involvement (Coltrane 1996; Cooney, Pedersen, Indelicato, and Palkovitz 1993; Daniels and Weingarten 1982; Heath 1994). There have been exceptions to this conclusion; it has been found that those who became fathers at older ages tended to do less physical play with their children (Neville and Parke 1997), and that there was no

relationship between fatherhood timing and the amount of time fathers spent administering discipline (Heath 1994). These findings point to the importance of distinguishing multiple aspects of father involvement.

Birth Timing and Involvement: Explanations

While others have observed a relationship between fatherhood timing and involvement, it has been more difficult, especially for those working with statistical data, to explain why the relationship exists. In their insightful qualitative studies, Coltrane (1996) and Daniels and Weingarten (1982) offer several explanations, including time availability, fathers' attitudes towards parenting, and mothers' commitment to paid work. Another potential explanation may be derived from the concept of propensity to invest in children's development. Finally, the connection between timing and involvement is also likely to have something to do with fathers' sociodemographic characteristics.

Time Availability

Originating in the housework literature, the theory of time availability posits that the allocation of household labor depends on which spouse has the most free time. Time availability has been criticized as an approach to understanding housework because it ignores both gender and the ability of some household members (usually men) to exercise power in order to avoid unpleasant tasks (Shelton 2000). However, time availability may make more sense as an explanation of father involvement, since spending time with one's children is not as obviously a "bad" to be avoided as housework is. Coltrane (1996) and Daniels and Weingarten (1982) each believed that the tendency of later fathers to be more involved was partly a matter of available time. They each observed that men who delayed fatherhood until relatively older ages were able to avoid the "life cycle squeeze"

younger fathers faced when attempting to establish their careers and care for children at the same time. Thus, they were likely to have more time to be involved. Also, men who became fathers late were likely to have had fewer children on average, which allowed them to spend more time with each one.

Attitudes towards Parenting

Men who delayed fatherhood might also be more involved because they enjoy parenting more and were more psychologically prepared when they became parents. Daniels and Weingarten reported that men who become fathers at around age 20, even if they considered themselves highly willing before the birth, were more likely than others to come to feel unprepared and overwhelmed, creating a situation where a family of mother, father and child contains “one giver and two receivers of care” (Daniels and Weingarten 1982, p. 70). Men who delayed parenthood, by contrast, were likely to report feelings of readiness, and were also more likely than others to place a high value on family (Coltrane 1996). However, the connection between fatherhood timing and attitudes may not be as straightforward as these observations suggest. Cooney and co-authors reported that late-timing fathers were not more likely than others to feel positive about fathering as a whole, but that late-timing fathers who were also positive were more involved than any other group of men (Cooney, Pedersen, Indelicato, and Palkovitz 1993).

Mothers' Commitment to Paid Work

In married couples, a father's involvement in parenting is obviously not determined solely by his own characteristics and preferences but also by those of his wife. Indeed, explanations of involvement based on time availability, attitudes, and

propensities to invest, while they may be framed in an individualistic fashion, are almost certainly conditioned by characteristics of the couple's relationship (Coltrane 1996).

While a father's time available for parenting may be dictated by the demands of his job, it is often also an outcome of the couple's negotiations over what job he will take in the first place. Also, a woman can influence her husband's attitude towards fathering through her encouragement or discouragement of his parenting efforts (Pasley, Futris, and Skinner 2002).

For research purposes, the wife's attachment to the paid work force is useful shorthand for a whole cluster of characteristics that may affect her partner's involvement. One important aspect of attachment to work is the wife's earnings. Bargaining theory (England and Folbre 2002; Scanzoni 1982) implies that women who earn a sizeable income (relative to their husbands) can use their financial contributions to the household as a source of influence in negotiating for greater parenting involvement from their husbands. Research has shown that the bargaining model has similar deficiencies to the time availability model in accounting for men's housework (Shelton 2000); it ignores gender and often misses the operation of "hidden power" (Komter 1989). However, the same comment that was made with regard to the time availability explanation also applies here. Since parenting is not as clearly an undesirable task as housework, some men may be more open to bargaining over involvement than over chores.

A related but distinct factor is the wife's mental and emotional commitment to her career. Work-committed women have been said to be more likely than others to encourage their husbands' involvement, particularly in routine child care, in order to facilitate their own employment (Coltrane 1996; Daniels and Weingarten 1982).

Furthermore, women who pursued full-time careers in traditionally male-dominated fields were likely to delay parenthood until older ages, which means that if they were in a long-lasting marriage, their husbands also made the transition to fatherhood at an older age (Coltrane 1996). When they did have children, these women were usually earning a substantial share of their family's income, which gave them a strong position to bargain over parenting (Daniels and Weingarten 1982). Thus, there is good reason to believe that married fathers' wives' attachment to the workforce explains part of the relationship between timing and involvement.

Propensity to Invest in Children

Another explanation of the timing-involvement connection may be that men who became fathers at older ages have a greater propensity to invest their time in promoting their children's development. One possible origin of such a propensity may be derived from Becker's (1991) theory of family economics. Making an assumption similar to one that can be found in sociobiological theory (Lamb, Pleck, Charnov, and Levine 1987), Becker assumes that married couples' fertility and parenting behavior is geared towards maximizing the propagation of their genes in future generations. Since their resources are limited, couples face a trade-off between having many children and investing heavily in the success of each child. In the starkest possible terms, they must choose between the quality and quantity of children. If this is correct, it follows that couples with a delayed father will be less likely to choose a high-quantity strategy, especially if the mother also initiated fertility at an older age. They will seek to invest their resources in promoting the success of each of their small number of children instead. Although there is more than one way for men to invest in children's futures, one component of investment may be a

high level of father-child interaction, if the parents believe such involvement to assist children's development.

On the other hand, differences in the propensity to invest time in their children may be the result of varying cultural beliefs about the importance of fathers' involvement for children's development, rather than a mechanistic trade-off between child quality and quantity as Becker's theory leads one to believe. The question, then, is why delayed fathers should be more likely to believe in the importance of involvement. The answer most likely has something to do with sociodemographic differences between men with early and late fatherhood timing.

Sociodemographic Factors

Social class, or socioeconomic status, has been shown to relate to the timing of parenthood for both sexes, largely because higher education has tended both to delay parenthood and to lead to higher-paying careers (Chen and Morgan 1991; Rindfuss, Morgan, and Swicegood 1989; Rindfuss, Swicegood, and Rosenfeld 1987). At the same time, middle and upper-middle-class fathers have been the most likely to become highly involved with their children, a difference that some have called largely cultural (LaRossa 1988). Social class may explain the connection between timing and involvement because socioeconomic groups differ not just in terms of propensity to invest in children, but also in terms of time availability, attitudes toward parenting, and women's commitment to work.

In the United States, non-white women have tended to have first births earlier than white women (Chen and Morgan 1991), which has made it likely that non-white men become fathers earlier than their white counterparts. If these men's involvement has

tended to be different than white fathers', then this may translate into a relationship between involvement and birth timing. Evidence from the first wave of the Child Development Supplement suggests there have been racial and ethnic differences in involvement, although they could not be reduced to generalizations about which groups were more or less involved as a whole (Hofferth 2003). Rather, black resident fathers tended to be more authoritarian than white fathers, meaning they were less warm but more involved in monitoring their children. On the other hand, Hispanic fathers tended to be more permissive, in that they monitored less than others. Both groups took more responsibility for child care than white fathers. Overall, the conclusion of this and other studies is that racial and ethnic differences in resident father involvement were matters of degree and not of kind (Ahmeduzzaman and Roopnarine 1992).

Types of Involvement

As mentioned earlier, scholars have not found delayed fatherhood to be related to every type of involvement. Heath (1994) found no relationship between timing and the frequency with which men disciplined their children. Also, Neville and Parke (1997) observed men who became fathers at earlier and at later ages to spend the same amount of time playing with their children. The early fathers tended to engage in more physical play than the delayed fathers, perhaps because they were younger and had more energy. The delayed fathers compensated by engaging in more verbally and cognitively-stimulating play.

It is striking that play and discipline are the forms of involvement that have had no relation to fatherhood timing in past research. Historians have noted that these two tasks, more than any others, were what men were supposed to do for their children

according to the ideal of fatherhood that was culturally dominant for most of the twentieth century (Pleck and Pleck 1997). Culturally-approved models of fatherhood are powerful motivators and guides, as Nock (1998) has argued, because they give those who want to be “good family men” a socially accepted way to do so and to be seen as doing so by important others. Extrapolating from Nock’s insight, I argue that modes of fathering activity which are culturally normative will likely be performed by a wide variety of men regardless of the differences between them, including the ages at which they became parents. This would explain why scholars found no association between timing and either play or discipline.

Recently, authors such as the anthropologist Townsend and the social critic Blankenhorn have proposed that the normative “fatherhood script” (Townsend 2002) in the contemporary United States has expanded beyond discipline and play. For these authors, participating in children’s nurturance (Blankenhorn 1995) and developing emotional closeness (Townsend 2002) are now parts of the good father role. So is taking responsibility for economically supporting the family. Protection is a third fathering task. Ensuring children’s physical safety is only one part of this. Another is safeguarding children morally by inculcating values, often by providing for them to receive religious instruction. The other responsibility, which Townsend calls endowment and Blankenhorn terms sponsorship, is about mentoring one’s children and preparing them for the future. A big part of endowment, according to Townsend, is encouraging children to develop skills, including academic and athletic ones. On the whole, endowment or sponsorship is close to the Eriksonian psychologist Kotre’s concept of societal generativity (Kotre 1984; Snarey 1993).

While the fatherhood script may seem to be a unified whole, Townsend asserts that it is rife with contradictions. Paramount among these is the conflict between working away from home to support the family and spending sufficient time with one's children, and especially taking the time to build an emotionally close relationship. According to Townsend, men usually resolve the conflict by attending to their economic responsibilities at the cost of time at home. Others have confirmed that paternal affection and nurturance, while socially valued, tend to take a back seat to other responsibilities such as providing for and protecting children (LaRossa 1988; Nock 1998). Given the imperative to provide, one might expect that men who are especially motivated or have a relatively large amount of free time will be likely to spend far more time in nurturing activities and in other time-consuming forms of involvement.

Hypotheses

The above review of the literature leads to the following hypotheses about fatherhood timing and men's involvement with children five and older.

1. Becoming a father at a later age will be associated with spending more overall time with one's children.
2. Becoming a father at an older age will be associated with spending more time in parenting activities whose main purpose is nurturance and building an emotional relationship.
3. Becoming a father at an earlier age will be associated with spending more time in physical play and physical activities with children, mainly because earlier fathers are younger on average.

4. Becoming a father at an older age will be associated with spending more time in cognitive play and cognitive activities with children.
5. Timing will not be strongly associated with forms of involvement whose purpose is protection, including attending religious services with children and disciplining them.
6. The positive relationships between involvement and becoming a father at an older age will be mediated, or statistically explained, by socioeconomic status, race, time availability, attitudes toward parenting, propensities to invest in children's development, and mothers' attachment to the paid work force.

In testing the final hypothesis, the goal will not be to build a statistical model that accounts for every single one of the many factors that have been shown to be associated with involvement (Parke 1995; Pleck 1997), but rather to test the mediating effects of those factors that theory and past evidence suggest may be systematically related to men's parenthood timing

DATA AND METHODS

Data Source

Data for this research come from the Panel Study of Income Dynamics (PSID) and the associated Child Development Supplement (CDS), both conducted by the University of Michigan's Institute for Social Research. The PSID is a nationally-representative survey that has been collecting economic and demographic information on the same longitudinal panel of households for a very long time (since 1968, in many cases). Willing participants, including children who grow up and leave home, remain in the study when they leave their original households; this has allowed the PSID to

continually maintain and refresh its sample. In addition, a new sample of recent immigrant households was added in 1997.

The PSID is well suited to a study of birth timing because of its unusually high-quality fertility data. Complete retrospective fertility histories were collected for adult PSID respondents in 1985, and subsequently for new individuals entering the study. These fertility histories have been updated at each subsequent annual or biennial survey wave. The frequently updated fertility information minimizes the recall bias that is well known to plague studies of men's fertility (Rendall, Clarke, Peters, Ranjat, and Verropoulou 1999). Men recall their fertility most accurately when they have remained in the same household as their partner and children, as is the case for most fathers in this paper, but the PSID's fertility data remain superior to purely retrospective information.

In 1997, 2394 PSID households with a child under the age of 13 participated in the first wave of the CDS, a survey designed to supplement the PSID's standard topics with questions about child development issues, including parenting (Hofferth, Davis-Kean, Davis, and Finkelstein 1999). 2006 of the CDS households took part in a second wave in 2002-2003 (henceforth the "2002 wave"). Since some households contained more than one eligible child, information was collected about a total of 2907 target children who were then aged approximately five to seventeen.² In households with two

²The data do not say exactly how old the children were when they and their parents were interviewed for the second wave. Data collection took place over a long time period, and no information is currently provided on the children's ages at the time of the interview or the date when the interview took place. Therefore, I calculated each child's approximate age by adding five to his or her age at the time of the first interview.

resident adults, one was designated the “primary caregiver,” while the other was labeled the “other caregiver.” Although the primary and other caregivers could be any adults who cared for the child, they were usually the child’s mother and father figures, respectively.

The sample for this study consists of 750 CDS families containing 1114 target children. Included children were living with a biological mother and father who were married at the time of the 2002 data collection, although they need not have been married when the child was born. Although the central explanatory factor in this research is the age at which the man became a parent for the first time, the responding father’s first child need not have been a target child in the CDS, or have lived with him at the time of data collection. The mother and father must have participated in the 2002 wave as the primary and other caregivers, respectively. Due to limitations in the available data, a small number of cases had to be eliminated because the father had adopted a child, or because the household head designated by the PSID was not either of the child’s parents.

Outcome Variables

Table 1 contains means, standard deviations, and minimum and maximum values for all variables used in this research. The first two outcomes are drawn from time diary reports of children’s activities, as filled out by the children themselves (or by their mothers) over the course of two days: one weekday and one weekend day. The availability of time diary data is one of the most valuable features of the CDS, since time diary reports of activity on specific days have been shown to be more accurate and reliable reflections of time use than survey questions about how people spend their time in general (Juster and Stafford 1985). The first outcome drawn from the time diaries,

total interaction time, is the total amount of time the child reported that the father actively participated in his or her activities during the two days. This may be seen as a measure of Lamb, Pleck and co-authors' (1987) engagement concept. The second is the amount of time the father was engaged in the child's activities in the mother's absence; non-parental others may or may not have been participating at the same time.

All of the other outcome variables are drawn from the father's survey, and they all measure specific sub-categories of paternal involvement. First, men responded to a battery of seven questions indicating the frequency with which they conversed with their children and expressed affection towards them. Factor analysis shows that all but one of these items load on a single factor; discussing current events with the child is an outlier. A scale formed from the remaining six items has a Cronbach's alpha value of .77. This scale represents fathers' efforts to build emotional closeness.

Three items measure involvement oriented towards play and towards mentoring children. The first is derived from a question about how frequently fathers participated in their children's after-school activities. Since many men never took part in after-school activities, a dichotomous variable is used to indicate any participation, as opposed to none.

The other two play and mentoring items come from a battery of questions about the frequency of the father's participation in various activities with the child. The first is a single item measuring how frequently the father and child play sports and share other outdoor activities. The second is a scale composed of five cognitively-oriented activities; they include doing arts and crafts, using a computer or playing video games, working on

homework, playing a game or doing a puzzle, and looking at or talking about books. Cronbach's alpha is .79 for this scale.

The final two outcomes relate to the protective aspect of involvement. First, seven items probed fathers' enforcement of rules about specific areas, such as how much TV children could watch and which friends they could spend time with.³ These seven items load on a single factor, and a scale formed from them has an alpha value of .84. Second, fathers were asked how frequently they attended religious services with their child. This was recoded into a dichotomous variable indicating whether the father and child attended services together at least once a month, since about half of men did so.

In most cases, the hypotheses that were stated above in general terms can be quite easily applied to these outcome variables. Becoming a father at an older age should be associated with more total interaction time and more interaction time in the mother's absence, more talks and expressions of affection, and more cognitively-oriented activities. Becoming a father at a younger age should be related to more involvement in sports and outdoor activities. Timing of fatherhood should not be associated with rule enforcement or religious attendance.

It is less clear what to expect about men's participation in children's after-school activities. Two-thirds of the specific activities in which fathers took part were sports and martial arts, meaning they were physical activities. On the other hand, it is likely the men

³ Each of these items consists of two parts. First, fathers were asked if they had any rules in a specific area, and if so, how frequently the rules were enforced. I recoded each two-part item into a single four-level variable, grouping fathers who had no rules together with those who never or rarely enforced their rules.

were usually acting in a coaching capacity, rather than as active participants, so the prediction that early fathers will be more likely to engage in physical play does not apply. Furthermore, the other third of the activities were more intellectual in nature. Given that after-school activities often take place at times that conflict with men's work schedules, it is likely that this is one of the more optional kinds of involvement. Hence, I predict that men who became fathers at later ages will be more likely to take part.

Explanatory Variables

The central explanatory variable is fatherhood timing, or the father's age at the transition to parenthood. This age of becoming a parent is derived from the fertility history data collected by the PSID. In order to increase the sizes of the regression coefficients for this variable, thereby rendering them easier to interpret, I divided this measure by ten.

Almost all the other variables represent factors that have been hypothesized to explain why timing might be associated with involvement. The first of these is the father's age at the time of the survey. The father's socioeconomic status or class is measured by his family income and educational attainment. Since some families' incomes vary widely from year to year, the measure of family income used here is an average of the income reported in the 1999 and 2001 waves of the PSID. Education is a series of dummy variables indicating whether the man had less than a high school education, a high school diploma, or some college; college graduation is the omitted category. The father's racial and ethnic membership is measured by dummy variables indicating whether he was black, Hispanic, or a member of another non-white group; the

latter category mostly contains those who were of Asian descent. Non-Hispanic white is the omitted group here.

The time availability explanation of parenting is represented by three measures. Since fathers' time for involvement is limited by the demands of their jobs, two dummy variables indicate whether the father reported working more than 45 hours per week, or less than 35 hours per week, during the last PSID survey. Another variable measures the total number of children under age 18 in the household, since men with many children have less time to devote to each one. Also, recall that Becker's theory predicts that men with fewer children will have a greater propensity to invest intensively in each child. This variable, in combination with several of the attitude measures described below, represents Becker's theory as well as the theory of time availability.

Mother's share of couple earnings represents the mother and father's average relative employment earnings across the two most recent PSID survey years (1999 and 2001). This is a ratio that equals zero if the mother had no earnings, one if her husband had none, and .50 if they each earned the same amount. It is the primary variable used to represent the bargaining explanation of involvement. Mother's work behavior is also measured in terms of employment hours, as represented by two dummy variables indicating whether she was usually unemployed or employed part-time during the two most recent surveys; full-time employment is the omitted category.

A number of attitudinal measures will be employed in this paper. First, fathers responded to a series of four Likert-type items assessing the stress and aggravation they felt as a result of being parents. Cronbach's alpha is .74 in the sample used here. Next, fathers completed a long battery of Likert-type items about their attitudes toward gender,

work, marriage, and parenting. Factor analysis shows that six items about the importance of paternal involvement to child development and the satisfaction to be derived from parenting form a single factor. Typical items include, “Fathers play a central role in the child’s personality development,” and, “Being a father and raising children is one of the most fulfilling experiences a man can have.” I turned the items into a scale coded so that higher scores represent stronger support for involvement; Cronbach’s alpha is .81. Finally, men were asked how much education they expected the target child to receive. Responses were recoded into two dummy variables indicating whether fathers expected their children to receive either less or more than a college degree; college education was the most common response and was omitted.

While they are not ideal measures of the associated concepts, all of these variables relate to the attitudinal and investment explanations for the association between timing and involvement. Parenting aggravation is a measure of whether the father enjoys parenting or merely finds it a source of unpleasantness. Educational expectations for the child are a proxy for men’s demand for child quality. The variable measuring support for involvement is difficult to characterize, given the varying content of the items that form it, but it can be seen as an indicator of both men’s belief in the value of investing time in their children and the satisfaction they derive from doing so. Thus, it is related to both the attitudinal and the investment explanation of involvement.

Two measures represent mothers’ felt commitment to paid work. A number of Likert-type items assessed mothers’ belief in egalitarian gender roles. A scale formed from these items and coded so higher scores indicate greater egalitarianism has an alpha value of .77. Second, mothers were asked the same questions as fathers about their

support for father involvement. For mothers, this scale has an alpha of .80. This variable is used because women who are trying to combine parenthood with demanding careers may be more likely than others to support father involvement, although it is also possible that their guilt over not playing the role of the stay-at-home mother will make them feel uncomfortable about paternal involvement (Deutsch 1999).

Finally, the child's age and gender (a dummy indicating whether the child is female) are included as controls in statistical models. Although children's ages and genders bear no relation to the ages at which men became fathers, it is important to control for these factors because men are known to spend more time with sons than with daughters, and to spend less time with all children as they grow up (Pleck 1997).⁴

RESULTS

Timing, Father and Household Characteristics, and Socioeconomic Status

The final column of Table 1 contains bivariate correlations between the age at which men became fathers and all of the other variables in the analysis. Like all results reported in this paper, the correlations are population-weighted. While the PSID only provides a child-level weight for the 2002 data, I followed the PSID's recommendation (Gouskova 2004) to create a weight for the analysis of data provided by the "other caregiver" by calculating a non-response adjustment factor to correct the weights for the

⁴ I had originally planned to control for the duration of the marriage as well. In the CDS, however, marital duration is highly correlated with the age of the target child ($r = .67$). To avoid multicollinearity problems, the measure was omitted.

fact that some children were not living with a second caregiver, and that some secondary caregivers declined to participate in the CDS.

While the relationship between timing and involvement is the central focus of this paper, I turn first to the relationship between timing and the other predictor variables. Many of them are correlated with timing at the $p < .05$ significance level or better. Some of the strongest associations exist between timing and the sociodemographic variables. Men who became fathers at older ages are much more likely than others to have attended at least some college, and they are also likely to have higher family incomes. Those who became fathers early are more likely to be black or Hispanic, but less likely to be members of the “other non-white” group.

Unsurprisingly, men who became fathers later in life tend to have been older at the time of the survey. They also tend to be living with fewer children than others. Later parenthood timing is also associated with working fewer than 35 hours per week, albeit not very strongly. It is not at all associated with the odds of working more than 45 hours per week. Overall, there is limited evidence for the assertion that later fathers have more time for involvement because they face fewer demands at work. Fatherhood timing is correlated with married couples’ relative earnings; the wives of men who delayed parenthood bring home a relatively large share of the family’s earnings as expected. On the other hand, timing is not related to the odds that the mother works part-time or stays at home.

Turning to the attitudinal measures, fatherhood timing is highly correlated with supporting father involvement. As expected, men who became fathers at an early age are less likely to endorse the importance of father involvement than others. Early timing is

also associated with expecting one's child to receive less than a college education, while delayed timing is associated with high educational expectations. However, timing is not associated with the level of aggravation men report feeling as a result of being parents. The wives of delayed fathers are more likely than others to express beliefs in gender egalitarianism and in father involvement, which is consistent with the explanation that these measures are indicators of commitment to career.

It is worth noting that while there is no association between timing and the child's gender, there is a significant negative correlation between the father's age at first birth and the child's age at the time of the CDS-II survey, meaning that the older children in this study tend to have fathers who became parents at earlier ages. This relationship is a statistical artifact, but one with the potential to alter conclusions about the effect of timing on involvement. All the regression models below will deal with this confounding influence by controlling for the child's age, as well as child gender.

As noted in the background section, the relationships between fatherhood timing and class on the one side, and timing and class on the other, are very well-established. Furthermore, the correlations between timing and many of the predictor variables closely resemble known relationships between class and those same variables. For example, middle-class individuals are likely to endorse father involvement (LaRossa 1988) and gender egalitarianism (Brewster and Padavic 2000; Thornton, Alwin, and Camburn 1983). The reader may well be tempted to ask whether timing is merely epiphenomenal - a proxy for social class.

Just how closely is timing related to socioeconomic status in this sample? To help answer this question, Table 2 presents the weighted distributions of educational

attainment and family income by fatherhood timing. Early-timed fathers (the first quartile in terms of fatherhood timing in the CDS, or those who became parents at 24 or below) are compared with late-timed fathers (the last quartile, or those who became fathers at 31 and above) and with on-time fathers (the middle 50%). Clearly there are very strong contrasts between the average socioeconomic statuses of the early and delayed groups, and in many cases, between the early or the delayed group and all the rest. Considering that correlations between social variables are rarely perfect, these associations are quite strong. On the other hand, sizeable minorities of early-timed fathers have high educational attainment and high family income, and equally sizeable minorities of delayed fathers have little education and low family income. Despite the connection between timing and class, it is worth asking what other factors might account for timing's effect upon involvement, if any such effect is to be found.

Timing and Involvement

I now turn to the question of whether fatherhood timing is related to involvement at all. Tables 3a to 3f reports results from regression models in which each measure of involvement has been regressed on timing. I report robust standard errors to account for the fact that the sample violates the usual regression assumption that observations were independently sampled, since many CDS families contain two target children and thereby constitute two cases in the data.

Among fathers who participated in the 2002 wave of the CDS, there are high levels of partially missing data. Following the lead of scholars who studied father involvement in the first wave of the CDS (McBride, Schoppe, Ho, and Rane 2004), I use multiple imputation techniques (Little and Rubin 1987) to avoid losing the information

available from the partially missing cases. Specifically, I used the freeware program Amelia (Honaker, Joseph, King, Scheve, and Singh 2003) to create five imputed data sets, ran separate regression models on each data set, and then concatenated the results in a way that adjusts the standard errors of the coefficients for the fact that some of the data had been imputed.

In the baseline model, Model 1, the child's gender and age are the only other predictor variables. Subsequent models add small groups of variables to the baseline model that represent the various explanations why timing might be associated with involvement. Model 2 introduces only the father's age. Model 3 adds measures of social class. Model 4 adds measures of race. Model 5 adds measures related to time availability and social exchange. Model 6 adds attitudinal variables. The last model, Model 7, includes all measures that significantly predicted the outcome variable in the smaller models; if one variable of a set had a significant coefficient, the entire set is included. To test whether the additional predictors in each model mediate the relationship between timing and involvement, I employ the general linear version of Clogg and co-authors' test for whether a regression coefficient differs between two models that are nested (Clogg, Petkova, and Haritou 1995). Test results are presented in Table 4.

Interaction Time

The time diary measures of total paternal interaction and interaction in the mother's absence exhibit left censoring, so they are modeled using Tobit regression. The results from the baseline model, where only the child's gender and age are controlled, show that a ten year difference in fatherhood timing is associated with spending 15 more

minutes with one's children over the course of two days. Surprisingly, in light of the past literature, the difference is not statistically significant at all. When each of the other groups of control variables is added to the regression, the effect of later fatherhood timing on total interaction time always remains positive but quite modest and statistically indistinguishable from zero. (To save space, the complete results are omitted.)

To assess whether timing has any relationship to interaction that cannot be captured by treating the age of becoming a parent as a linear variable, I inspected the two-way scatterplot of timing and interaction, along with the fitted prediction lines from a locally weighted regression. The relationship looked quite linear, except at the extreme tails of the distribution of fatherhood timing. Since there are very few cases in the tails, it is appropriate to treat the relationship between fatherhood timing and interaction as a linear one.⁵

In contrast to total interaction, Table 3a shows that interaction in the mother's absence is significantly associated with timing when the child's age and gender are controlled. Specifically, a man who became a father at relatively late age is predicted to spend about 37 more minutes with his child in the mother's absence over the course of two days, compared to a man who became a father ten years earlier.

In many of the subsequent models, the timing coefficient is insignificant, but this does not necessarily mean it is significantly different than in the baseline model. The top part of Table 4 presents results for the test of whether the timing effect is mediated by the variables introduced in Models 2 to 7. According to the results, measures of social class

⁵ I repeated this procedure for each measure of involvement with which timing was significantly associated. The relationship was always acceptably linear.

mediate the effect of timing. Since the coefficient for less than high school education is significant, it can be inferred that one reason that timing is associated with involvement is that resident fathers with low education are likely both to have become fathers at early ages and to have relatively little interaction with their children without the mother's presence. Similarly, the timing coefficient is significantly mediated by the racial variables. It appears that black and Hispanic resident fathers are likely both to have become parents early and to have relatively little interaction in the mother's absence. In Model 6, supportive maternal attitudes encourage this kind of father-child interaction. However, maternal attitudes do not mediate the effect of timing.

The final model, Model 7, does a very good job of accounting for the relationship between timing and involvement. The timing coefficient is insignificant, and as shown in Table 4, it is significantly smaller than in Model 1. Both the class and the racial controls contribute to this. Note that the coefficients for being Hispanic and having less than a high school education become insignificant in this model because they are highly correlated with one another.

Affection and Talks with Child

Table 3b presents results for ordinary least squares regression models predicting the frequency with which fathers express affection towards their children and converse with them. As expected, having made a later transition to fatherhood is associated with being more affectionate in the baseline model. Non-white fathers (especially those in the "other non-white" category) are less affectionate than whites, and that those who work fewer than 35 hours per week are more so than others. However, the racial variables and the work behavior variables do not significantly alter the effect of timing. The timing

effect is only significantly mediated in Model 6, the attitudinal model. It appears that delayed fathers tend to be more affectionate because they also tend to be less aggravated by being parents, to have higher educational expectations for their children, and to believe more strongly in paternal involvement. Mainly because of the attitude measures, the final Model 7 does a good job of explaining the timing coefficient.

After-school Activities

Since it is a dichotomous outcome, the likelihood of participation in children's after-school activities is modeled using logistic regression. In the baseline model in Table 3c, having made a later transition to fatherhood is associated with greater odds of participation. Many of the groups of predictor variables explain the timing effect to a significant extent. As in the results for interaction time in the mother's absence, the timing effect is partly accounted for by the fact that Hispanic fathers and the least educated fathers are unlikely to participate. As in the results for affection, the effect is partly accounted for by men's expectations for their children's education. As a result of this combination of factors, the timing coefficient is reduced to statistical insignificance in the final model, and it is significantly smaller than in the baseline model. Once again, the coefficients for being Hispanic and for having low education are not significant in the final model because of the correlation between them.

Father-Child Cognitive Activities

The results of OLS regression models for sharing cognitively-stimulating activities (such as playing board games or working on homework) with children, as seen in Table 3d, differ from what has come before. As expected, having made a later transition to fatherhood is associated with the frequency of these activities. Surprisingly,

Table 4 shows that the coefficient becomes significantly larger when the father's age is controlled. Men who became fathers for the first time at older ages are likely to do these activities more frequently, but on the other hand, older men are likely to do them less frequently. When this age effect is not taken into account, the effect of timing is understated.

Controlling for fathers' educational attainment reduces the timing effect, since men who graduated college are likely to do cognitive activities with their children more often than all others. Controlling for attitudes also reduces the timing effect, although the reduction does not quite reach the $p < .05$ significance level. It appears that delayed fathers do these activities more often because they believe in the value of involvement and have higher educational expectations for their children.

Unlike for the other outcomes presented so far, the timing effect seen in the baseline Model 1 is not explained by the predictors in the final Model 7. This is partly because the mediating effects of education and attitudes are counteracted by the suppressor effect of the father's age. To see whether education and attitudes mediate timing once age is taken into account, I tested whether the timing coefficient is significantly different between Model 2 and Model 7 (result not shown). The difference did not reach conventional levels of significance. Thus, the measures used in this analysis do not do a good job of explaining why making a delayed transition to fatherhood is associated with sharing cognitively-stimulating activities with one's child.

Father-Child Sports and Outdoor Activities

I hypothesized that early fathers would be likely to engage in physical activities with their children more often because they tend to be younger. It turns out that without

controlling for the father's age, there is no relationship between fatherhood timing and sports and outdoor activities in Table 3e. When age is controlled, timing becomes highly significant; having made a later transition to fatherhood is actually associated with doing outdoor activities more frequently. Non-whites (especially those in the "other non-white" category) tend to do these activities less often, as do those with low expectations about their children's education. However, the timing coefficient is not significantly mediated between Model 2 and Model 7 (result not shown). Thus, the results parallel those for cognitively stimulating activities; the measures considered here do not explain why making a delayed transition to fatherhood is associated with sharing sports and outdoor activities with one's child once age is controlled.

Attending Religious Services

The timing of fatherhood is not associated with the odds that men attend religious services with their children at least once per month in any of the models I ran. (To save space, the results are omitted.) Note that this is what was expected.

Rule Enforcement

In the baseline model in Table 3f, fatherhood timing is not related to the frequency with which fathers enforce rules on children's behavior. This is what was hypothesized. When race is taken into account, having made an early transition to fatherhood is associated with less rule enforcement. Contrary to some previous research, all types of non-white fathers in this sample tend to have fewer rules and enforce them less often than white fathers. Since early fathers are more likely to be non-white, the timing effect is suppressed unless race is controlled. Similarly, the timing effect is significant when the number of children in the household is controlled. This is because

those with a large number of children tend to be less strict about enforcement. Since those who became fathers at an early age tend to have more children, the timing effect is suppressed unless this factor is taken into account.

DISCUSSION

Among married biological fathers in the 2002 wave of the Child Development Supplement, the age of becoming a father is associated with many measures of paternal involvement with children age five and older, even though all the respondents had been fathers for at least five years. This is what one might have expected on the basis of the past literature. On the other hand, some of the results confound expectations. Most notably, there is no relationship between fatherhood timing and the total amount of time fathers and children spend in interaction.

It seems to defy logic that men who delayed fatherhood could be more involved in so many specific ways with their children, yet not spend more total time in interaction. A very likely explanation for part of this discrepancy is that the CDS-II, which was designed to study child development, took the greatest pains to measure forms of paternal interaction and involvement that are known to promote development. However, these activities do not constitute all, or even the bulk, of men's involvement time. Fathers also spend time watching television with their children, for example, and conversing about "neutral" topics such as sports and movies while eating meals or driving from place to place. Perhaps the timing of becoming a father is not connected to these activities, or men who had their first child earlier even do them more than others. Either scenario could explain the overall lack of association between timing and interaction.

Another, more troubling part of the explanation may be that all of the involvement measures except the time diary measures of interaction time were self-reported by fathers. Perhaps men who became fathers at older ages are more likely to overstate their levels of involvement when asked to report on their own activities because they are more susceptible to concerns about social desirability than others. Since they are more likely than other fathers to believe that paternal involvement is important, perhaps those who do not live up to their perception of the ideal are reluctant to report the truth. This is probably not the major reason for the apparent discrepancy between the time diary and survey results, since many early fathers in the CDS-II expressed a strong belief in the importance of father involvement as well, but it may be part of the story. The fact that some measures of involvement were collected from both the father and child perspectives is a very valuable aspect of the CDS-II, in that it reveals discrepancies such as this one that would have been invisible in data collected from a single source.

On the question of which specific kinds of involvement are associated with fatherhood timing, many of the results turned out in the ways hypothesized. Men who became fathers later in life talk with - and express affection towards - their children more frequently, they engage in shared cognitively-stimulating activities more frequently, and they are more likely to take part in their children's after-school activities. Also, there is no relation between fatherhood timing and the likelihood men attend religious services with their children. All of these results follow from the observation that some kinds of involvement are relatively optional for resident fathers and others are culturally normative and expected, coupled with the fact that delayed fathers tend to be more verbally and cognitively engaging towards their children than others.

On the other hand, rather than early fathers engaging in more sports and outdoor activities with their children, there is no relation between timing and these kinds of activities. When the father's age is controlled, later timing is associated with greater involvement. This finding, while not expected, follows the general trend for delayed fatherhood to be associated with specific kinds of involvement that have high developmental value.

Although there is no relation between timing and the total amount of father-child interaction, delayed timing is associated with greater amounts of interaction in the mother's absence. If fathers are interacting with children when the mother is not around, it may be more likely that they are taking care of their children's day-to-day needs. Since child care remains one of the less normative forms of fathering activity, it is logical that it is related to fatherhood timing.

Another surprising finding is that when the father's race and family size are taken into account, early fatherhood is associated with more frequent enforcement of rules. The analysis in this paper cannot shed much light on this result. Further work should elaborate by assessing whether men who came to fatherhood late tend to be inappropriately soft with their children, as some have feared to be the case (Nydegger 1986), or whether earlier fathers are inappropriately authoritarian, as well as why either state of affairs might be the case.

When cognitively-stimulating activities, after-school activities, or time spent with the child in the mother's absence are considered, the effect of being a delayed father is significantly mediated by education. To rephrase a question raised earlier: is timing simply a proxy for fathers' educational attainment? It may be so in some cases, but not in

all cases. Although timing is related to men's expressions of affection, education is not, and neither is family income. The story of fatherhood timing is not simply a story about education or about socioeconomic status more broadly conceived.

Furthermore, other predictors contribute to explaining the relationship between delayed fatherhood and timing. In some cases, the relationship is partly accounted for by the father's race and ethnicity. Black and Hispanic fathers tend to have initiated fatherhood at younger ages, and they also tend to spend less time than white fathers interacting with the child in the mother's absence. In addition, Hispanic fathers are relatively unlikely to participate in after-school activities with children. However, the effect of being Hispanic is largely explained by education, since the Hispanic men in the sample, many of whom immigrated to the United States, are disproportionately likely not to have graduated from high school.

Men's feelings about being a father and about the importance of involvement, as well as their expectations for their children's educational attainment, also account for some of the relationships between delayed fatherhood and involvement. What is more, these effects are robust in the final regression models where education is controlled. Delayed fathers tend to be educated, but even those who are not highly educated are likely to have positive attitudes about fathering and to believe in investing time in their children's upbringing.

While low aggravation is associated with being more affectionate towards children, men's support for involvement and expectations for their children's future appear to be explaining the timing effect in a larger number of cases. There is more support for the argument that delayed fathers are more involved because they want to

invest in their children's futures than for the notion that enjoyment of parenting leads them to involvement. Since most of the measures of involvement are not related to the number of children in the home, the evidence suggests that the drive to invest in children has cultural sources, rather than being the result of a trade-off between quality and quantity in offspring.

In their observational studies, Coltrane (1996) and Daniels and Weingarten (1982) each noted that delayed fathers tend to have less severe work-related demands on their time than other fathers, and to have wives who earn a significant share of the family's employment income. As a result, they concluded that time availability and social exchange are part of the explanation for the connection between fatherhood timing and involvement. While there is an association between fatherhood timing and both fathers' work hours and mothers' relative earnings in the CDS-II as well, these facts do not significantly explain why delayed fathers are more involved. Class, race, and paternal attitudes toward investment and parenting are all more powerful mediating factors than time availability and social exchange. Perhaps this is not surprising, since these theories have not performed well in research on household labor either (Shelton 2000).

Once the father's age is controlled, none of these theoretical explanations proposed does a very good job of accounting for the fact that delayed fathers engage more frequently in outdoor activities and cognitive activities with children. Many of these activities are play, which is a normatively important part of fathering. Hence, it is likely to be shared by resident fathers and their children regardless of class, race, time availability, or men's attitudes and beliefs. This explains why none of the predictors employed in this research explains the timing effect, but not why a timing effect exists at

all. There may be other paternal qualities associated with timing besides those considered here.

While several limitations to the current research have just been noted, there are a few more that must be pointed out as well. A very common difficulty in research based on cross-sectional social research is that the conclusions do not have a causal interpretation because the predictive factors are measured at the same time as the outcomes. In this study, the timing of becoming a father is unproblematic because it is obviously causally prior to involvement. On the other hand, it is unfortunate that fathers' and mothers' attitudes were measured concurrently with the outcome variables. This makes it impossible to say whether delayed fathers are more involved because they and their wives have more positive attitudes, compared to the converse – that they and their wives have positive attitudes because they are more involved.⁶

The wide range of ages of the CDS-II children is both an advantage and a weakness. The CDS-II facilitates study of men's involvement with older children, which is somewhat less commonly investigated than involvement with younger children. However, it is admittedly counterintuitive to study involvement with children age five to seventeen lumped together, considering that appropriate types and levels of involvement

⁶ Fathers' and mothers' attitudes were also measured at the first wave of the CDS in 1997. I tried utilizing these attitudes in all the relevant models, but none of the 1997 attitude measures were ever significant predictors of involvement in 2002. This would seem to suggest that attitudes are shaped by involvement, rather than the contrary. This conclusion, however, must be strongly tempered by the fact that five years is a very long lag. In five years, many fathers' objective circumstances may have undergone considerable changes in ways that impacted the types and amounts of involvement in which they engage. Attitudes measured five months in advance would have allowed a much better test.

vary dramatically as children grow. Unfortunately, the sample is too small to split into subgroups based on the child's age. All I could do was statistically control the child's age here.

The CDS offsets these drawbacks with considerable strengths. It offers an unusually large number of measures of paternal involvement, including time diary reports from the children themselves and measures of many specific fathering activities. Also, since the data are nationally representative, and since the CDS fathers can be linked to the PSID's excellent fertility data, the CDS is an ideal source for studying the effect of age at the transition to fatherhood on subsequent involvement in the United States.

The results from this paper suggest two directions for future research. The admittedly more controversial one is for scholars to more carefully measure and study forms of paternal involvement such as watching television and just "hanging out". While these may not be the most developmentally critical types of involvement, they have some value in that they facilitate paternal monitoring and help build parent-child closeness (Blankenhorn 1995). The likely danger in ignoring them is to overstate the quality of the parenting of culturally favored groups of fathers – including those who are highly educated, middle-class, and those who have been called delayed fathers in this paper – and undervalue the contributions of others (Doherty, Kouneski, and Erickson 1998; Hawkins and Dollahite 1997).

Even if this seems contradictory to the prior recommendation, there would also be value in further research on delayed fathers. Over the past several decades, the range of ages at which men make the transition to parenthood in the United States has been dynamically growing. This is almost entirely because more men have become fathers at

what used to be considered very late ages for this major life event. If the upper bound to the normal age for becoming a father continues to grow, then those who delay parenthood may become increasingly distinctive in terms of parenting behavior, as well as in socioeconomic status, race, and attitudes towards paternal involvement. At the same time, those who become parents at ages that used to be considered late for parenthood, but no longer are, may stop appearing distinctive at all. It will be worth finding out whether these predictions come to pass.

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