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**When Do Fathers Care? Maternal Employment, Age of Children and Men's  
Involvement in Childcare\***

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## **When Do Fathers Care? Maternal Employment, Age of Children and Men's Involvement in Childcare**

### *Abstract*

One “puzzle” in the time diary literature on father involvement is that fathers’ childcare time is not different in families where mothers are employed and where they are not. Using new American time diary data from 3,535 married fathers with children under age 13, this study focuses on a broader set of dimensions of fathers’ care than has been used in past research: fathers’ “solo” parenting time, fathers’ time in routine, physical care and managerial activities of parenting, and fathers’ time “minding” children or having children “in their care.” On these measures that tap greater responsibility for children, fathers with working wives do more childcare than fathers with nonworking wives. A control for children’s age, often absent in past research, helps reveal the positive association between maternal employment and fathers’ involvement in primary childcare activities. Fathers’ participation in childcare activities is particularly strong in dual-earner families with infants and toddlers.

## **When Do Fathers Care? Maternal Employment, Age of Children and Men's Involvement in Childcare**

A consistent finding in the time use literature of the past few decades is that married mothers' employment is not associated with fathers' overall time in childrearing (Marsiglio 1991; Nock and Kingston 1988; Pleck 1985; Sandberg and Hofferth 2001; Bianchi 2006). Working mothers continue to shoulder the lion's share of the work at home (Hochschild 1989), and, in part because of this, they also experience a "motherhood penalty" in pay at work (Budig and England, 2001; Correll, Benard, and Paik 2007). Fathers who take on greater responsibility for child care presumably ease the burden of the "second shift" for employed mothers, which in turn may help mothers reduce the wage penalty at work. If the lack of correlation between maternal employment and father's participation in childcare signals an unwillingness on the part of men to become involved in the home, even when demands are high, this does not bode well for the future of gender equality in either the home or the marketplace.

The failure of a wife's employment to be associated with a father's participation in childcare is perplexing, however. One might expect the association to be positive: more maternal work outside the home, more father care inside the home. This expectation could be derived either from a causal argument about working mothers' greater ability to garner childcare assistance from their husbands or based on an argument about marital selection.

A causal argument would suggest that women's market work changes the family context and affects the division of labor in the home. A mother's work outside the home pushes fathers into doing more family work including childcare, particularly when children are young and childrearing demands are high. Furstenberg (1993), for example, has argued that women's changing roles have in some sense helped to create "good dads," providing the conditions,

incentives, and demands for greater father involvement in the day-to-day care for children. The earning power that comes with market work enables women to get what they want from men, including a more equitable division of labor in the home. An employed wife should thus be able to extract more assistance with childrearing from her husband than a non-employed wife.

An argument based on marital selection would lead to similar predictions: women and men who want children and anticipate both partners working for pay when children are young should select spouses who are more committed to an egalitarian division of labor in the home. The woman who plans to continue working outside the home selects a spouse who does more around the house than the woman not so committed to market work. Reciprocally, the man who does not wish to equally share in domestic work in the home chooses a wife who is more content to divide family responsibilities along gender lines where men specialize in paid work and women undertake the bulk of responsibility for unpaid work, including childcare. Although the incidence of sole breadwinning has declined in the U.S. (Raley, Mattingly, and Bianchi 2006), it still characterizes a substantial proportion of two-parent families with young children (about 37 percent of families with children under age 6) (Bianchi, Robinson, and Milkie 2006: Table 3A2). In households where the husband is the sole earner, both members of the couple may agree that childrearing is more the responsibility of the wife than the husband. Additionally, the non-employed wife's lack of economic bargaining power should facilitate men's shirking of their childcare responsibilities.

Thus, either because women's employment influences men's involvement in family work or merely for reasons of marital selection, we might anticipate that husbands who are married to employed wives are more actively involved in the care of their children than husbands who are sole breadwinners. In this paper, we argue that perhaps past research has not found this

association because the domains of childcare where we might most expect to see differences have not been adequately conceptualized and measured. The finding of no relationship between maternal employment and fathers' care of children is typically based on an overall quantity measure of fathers' time with their children. But it may not be overall quantity of time with children where we should expect to see fathers' responsiveness to maternal employment. Time can be spent not only with children but also with a spouse, diluting the responsibility men have for the care and monitoring of their children when their spouses are present. Where we might expect to see evidence of greater involvement of fathers in childcare when mothers are employed is on dimensions of care that tap "taking responsibility" for children. Employed mothers should be married to fathers who exhibit higher levels of responsibility for children than mothers who are not employed. In the next section, we review the literature on fathers' time in childcare activities and their time with children and conceptualize the dimensions of fathers' responsibility for children that might be more sensitive to levels of maternal employment than a father's overall time with his children.

In addition, prior research has not always adequately controlled for age of children in the assessment of the relationship between father care and maternal employment. Because young children require a great deal of supervision and care, both mothers' and fathers' child care time tends to be highest when there are very young children in the household and then declines as children age into middle childhood and adolescence. Mothers' work outside the home is also highly responsive to the age of their children (Bianchi and Raley 2005). Many married mothers either take some time out of the labor force or curtail their labor market hours when children are young, and their level of employment increases as their children get older. This means that the group of fathers who are married to nonemployed wives has younger children, on average – and

higher overall childcare demands in the household – than the group of fathers married to employed wives. Without standardizing for age of children – for household childcare demands – the association between maternal employment and fathers’ participation in childrearing may be attenuated.

Previous studies suggest that when couples have their first child, the household division of labor often shifts toward more conventional, gender-based time allocations with wives performing most of the housework and child care (Belsky, Lang, and Rovine 1985; Cowan 1988). Hence, it is likely that families with employed mothers of very young children, especially those where the mother works full-time hours, are a select group of families who are either very committed to the labor market careers of both members of the couple – and perhaps also to a gender egalitarian division of labor in the home – or are in great need of income from both spouses to make ends meet. Dual-earner families are a more select subgroup of two-parent families when children are young than when children are older because dual-earning is more widespread among couples with older children. This fact also argues for greater attention to the interconnections among age of children, mothers’ employment and father care, if we are to accurately assess the association (or lack thereof) between fathers’ participation in caregiving in the family and mothers’ work outside the home.

For our empirical analysis, we use the new American Time Use Survey (ATUS) to examine dimensions of fathers’ care and responsibility for children in relation to maternal employment. We first replicate past findings, showing no relationship between fathers’ time in childcare activities or overall time with children and maternal employment. Then we examine an expanded set of measures of father care, including those we argue tap fathers’ “responsibility” for children, and investigate whether these are correlated with levels of maternal employment.

Finally, we standardize for differences in the age of youngest child and number of children (and other covariates) in order to better assess the association between maternal employment and fathers' involvement in childcare. We also disaggregate two parent families by age of youngest child to determine whether the relationship between maternal employment and father care is stronger when children are very young, given that there may be greater "selection" of gender egalitarian couples into the "mother employed" category among those with very young children. Our goal is to clarify and expand what we know about the relationship between a mother's employment and a father's involvement in childrearing, a relationship that may be key to gender equality in labor market outcomes of men and women.

## **Background**

### *Overall Trends and Dimensions of Father Care*

Fathers, at least married fathers in the U.S., have increased the number of hours they spend in child care activities and also the overall time they spend with their children, according to time diary evidence both from parents and from children (Bianchi et al. 2006; Sandberg and Hofferth 2001; Sayer, Bianchi, and Robinson 2004). Between 1965 and 1985, fathers averaged about 2.5 hours per week in direct childcare. By 2000, fathers had nearly tripled their primary childcare time, reporting almost 7 hours per week of childcare (Bianchi et al. 2006).

Fathers spend far more time with their children than they do in direct child care activities. Here also, fathers currently average a much higher 4.7 hours per day, or 33 hours per week, with their children (Allard et al. 2007) than they did in the 1960s when the estimate was 2.8 hours per day, or about 20 hours per week (Bianchi 2000). This increase in fathers' time in childcare is also apparent in a number of other developed countries (Bianchi et al. 2006) and occurred during a period of great increase in mothers' labor force participation.

Research on parental time with children, at least that using the time diary approach, has most often focused on primary child care time - time when fathers are directly engaged in caregiving activities (e.g., Bianchi 2000; Sayer et al. 2004). Primary child care involves a variety of activities, some more basic and routine (e.g., feeding or changing diapers) and other activities that are more interactive and have a “fun” element to them (e.g., playing and talking with children). Compared to mothers, fathers have traditionally allocated a greater proportion of their child care time to “fun” or “interactive” activities rather than to the routine activities of daily caregiving (Craig 2006; Pleck 1997). In the U.S., mothers report 1.4 times the amount of time fathers spend in interactive activities but do 2.3 times as much routine caregiving as fathers (Bianchi et al. 2006). However, fathers’ time in routine care of children has more than tripled, rising from 1.3 to 4.5 hours per week between 1965 and 2000 (Bianchi 2006). As the gender gap in routine caregiving has shrunk, fathers have become more involved in all aspects of care, not just the “fun” parts of childrearing. However, the management of children’s care and activities continues to fall disproportionately to mothers (Craig 2006; Lareau 2005).

These trends in fathers’ childcare activities and overall time with children provide prima facie support for the conclusion that married mothers’ rapid increase in labor force participation led to a subsequent rise in men’s participation in childrearing. In the cross-section, however, even recent studies tend to find either no or very small differences in the absolute levels of fathers’ time with children in two-parent families where the mother works outside the home and where she does not. Beginning with 1975-1976 time use data, Pleck (1985) and Nock and Kingston (1988) found no difference in childcare time between fathers with an employed or non-employed wife. Fathers’ proportional share of childcare was higher when mothers were employed, but primarily because a wife’s level of childcare was lower and not because a



husband's was higher in households with an employed wife (Pleck 1985). Using data from 1987-1988 National Survey of Families and Households (NSFH), Marsiglio (1991) found that wives'/partners' employment status was not related to the frequency of fathers' activities (e.g., reading, playing, homework) with preschool or school aged children. Children's time diaries from 1981 and 1997 showed no significant difference in children's average time with their fathers between dual-earner and single-earner two-parent families, though longer work hours of mothers were associated with slightly higher levels of father involvement (Sandberg and Hofferth 2001). Most recently in time diary data collected from parents in 2000, fathers with an employed wife did not differ significantly in the time they spent with their children or their feelings of the adequacy of their time with children compared with those who had a wife at home full time (Bianchi 2006).

Despite these findings of no association between maternal employment and fathers' overall involvement in childcare, past studies offer hints about the areas of childrearing where we might expect fathers to take on more responsibility when mothers are employed. For example, research on nonstandard work schedules suggests higher father care when mothers and fathers work different shifts (Presser 2003; Wight, Raley, and Bianchi. forthcoming). In these couples, fathers spend more time alone with children as the sole caregiver than in couples where both work standard hours. These studies point to a potentially important dimension of childcare that is intertwined with who is responsible for children: who else is present when a father is with his children.

Most studies focus separately on the childcare of fathers and mothers, yet often both parents are with their children at the same time, which may offer children more adult attention but also reduce each parent's caregiving workload. Fathers are much more likely to provide care

in conjunction with mothers than on their own, while mothers spend more time alone in activities with children than they do with a father present (Budig and Folbre 2004; Craig 2006; Mattingly and Bianchi 2003). Recognizing this overlap may help differentiate the childcare of fathers with an employed wife from that of fathers with a wife at home full time. Husbands of employed wives may spend more “solo” parenting time with children than sole-breadwinning husbands. When fathers parent “solo,” they arguably take on more responsibility for anticipating and attending to children’s needs than when they share those tasks with another adult.

An early study of a non-probability sample of Australian couples by Russell (1982) found no differences in fathers’ overall time with children but found that fathers with an employed wife did more “solo” childcare. A similar finding was reported for a small, non-probability sample of two-parent U.S. families in rural Pennsylvania (Crouter et al. 1987). In addition, in these Pennsylvania families, there were seasonal differences in father care that tracked changes in mothers’ employment in response to children’s summer vacations (Crouter and McHale 1993). In families where mothers reduced their labor force hours in the summer when their school age children were not in school, a more traditional gender division of child care labor between spouses ensued. Fathers cut back the time they spent monitoring their children’s activities. In dual-earner couples where the mother did not reduce her labor market hours in the summer, the division of childcare remained more equally distributed between the mother and father.

Another dimension of childcare that might tap “taking responsibility” is participation in the types of childcare that must be done day-in and day-out and that are not always viewed as fun. Husbands of employed wives may take on more responsibility for routine caregiving (e.g., physical care and managerial activities) than husbands of full-time homemakers, simply because

the demand for sharing basic care is higher when the mother is working outside the home. Households where both parents are employed are more “time stretched” (Jacobs and Gerson 2004), with more pressure for all adults to contribute to the routine but necessary daily tasks of childrearing. Using Australian time use data, Bittman et al. (2004) show that a spouse’s market work hours are positively and significantly related to a father’s time in routine childcare activities (i.e., what they label “physical, high contact care”). In contrast, maternal work hours are not predictive of father’s time in interactive care (i.e., what they label as “developmental care”).

Bittman et al. (2004) also find a correlation between maternal employment and father’s greater report of “passive childcare,” that is, time when the father is in the background but keeping an eye on children. Childcare is not only a set of activities, they argue, but also a “state of mind.” Parents are often aware of their children’s needs, they know what their children are doing and are able and willing to “help out” when necessary, even when they are not actually interacting with their children (Budig and Folbre 2004; Folbre et al. 2005). Although fathers may not spend more overall time with children when mothers work outside the home, fathers with employed wives may more often take responsibility for knowing where their children are and what they are doing than fathers with a wife who is at home full time. In Russell’s (1982) Australian study, fathers more often responded affirmatively that they had major responsibility for childcare in couples where the mother was employed outside the home than in those in which she was not.

#### *Children’s Age, Maternal Employment and Father Care*

Previous research confirms that age of youngest child is an overwhelmingly strong predictor of fathers’ and mothers’ time in childcare, perhaps the strongest predictor (Zick and

Bryant 1996, Kimmel and Connelly 2007). Maternal employment in a nonstandard work schedule encourages fathers to be the primary caregiver for their youngest child, but only when their youngest child is under age 5 (Brayfield 1995). Parental time with children declines once children begin attending school and are removed from parental care for significant periods of the day (Budig and Folbre 2004). Fathers spend less time in caregiving as children age and what fathers do with their children changes (Marsiglio 1991; Yeung et al. 2001; Sayer et al. 2004). As children get older, fathers spend less time in physical/personal care of the child and playing with the child. However, the total time a child is involved with his or her father in achievement-related activities (e.g., reading, studying) increases (Yeung et al. 2001: Table 1).

Although many studies use children's age as a factor predicting fathers' time in childcare (Marsiglio 1991; Yeung et al. 2001, Sayer, Bianchi, and Robinson, 2004), most do not pay sufficient attention to the link between age of children and maternal employment. Young children create huge childcare demands. Mothers, more than fathers, respond to this demand by reducing their level of employment. When mothers curtail employment, this may reduce the demand for father care. However, the presence of young children keeps the overall demand for supervision of children high relative to families who only have older children. In families where children are older, both fathers' and mothers' childcare time is reduced but mothers are also likely to work outside the home, thus increasing the demand for childcare involvement of fathers. Because of the complexity of these relationships, fathers with employed wives and fathers with non-employed wives may end up looking similar with respect to the overall number of hours they spend caring for their children. Failure to control for differences in the age of children in families with employed and nonemployed mothers, may give the erroneous impression that father care does not vary by maternal employment when in fact it does.

### *Other Factors Affecting Father Care*

In addition to age of youngest child, previous research suggests that the number of children is positively related to fathers' share of child care (Ishii-Kuntz and Coltrane 1992). Fathers are also found to spend more time with sons than daughters in play/companionship activities (Yeung et al. 2001; Mammen 2005), though at least one study suggests that these gender differences may be more prevalent in more traditional, single earner families than in dual earner families (Crouter and Crowley 1990).

Better educated fathers spend more overall time with children and more time on activities related to children's achievement than fathers with no college education (Bianchi et al. 2005; Yeung et al. 2001). Fathers' hours of employment limit the time they have available for unpaid family work and are negatively related to fathers' time with children (Hofferth and Anderson 2003; Aldous, Mulligan, and Bjarnason 1998). Fathers' paid work hours also do not vary greatly by either age of children or maternal employment status (Bianchi and Raley 2005). Related to fathers' work schedules, fathers' availability varies by day of the week, with fathers spending more time with children on weekends than on weekdays (Yeung et al. 2001).

A father's age may also affect his time with children. Younger fathers may need to invest greater effort in career building and improving their job skills and opportunities whereas older fathers may feel secure at work, have more flexibility in their jobs, and therefore be able to contribute more to childcare (Pleck 1985; 1997). Powell et al. (2006) report a positive relationship between paternal age and parental resources provided to adolescents, although previous time use data do not suggest that fathers' age is significantly related to fathers' childcare time (Sayer, Bianchi, and Robinson 2004). Previous research does suggest race and ethnic differences in fathers' interaction with their children. Compared to White fathers, Black

fathers monitor their children more, Hispanic fathers monitor their children less, and both minority groups exhibit more responsibility for child rearing than White fathers (Hofferth 2003).

### *Summary*

To summarize the foregoing, although theoretically we expect more father involvement when mothers are employed, previous empirical work has not suggested a strong link between fathers' level of involvement in childcare and mothers' employment status. However, the focus of past research has not been on the aspects of father care where we might most expect to find a positive association with maternal employment. Perhaps all fathers engage in the "fun" or "interactive" aspects of parenting but fathers married to employed mothers more often engage in routine caregiving tasks that are the more repetitive, more onerous and less fun. Fathers with employed wives may also do more "solo" care of children, generally be more available to their children, and take more responsibility for their children's care than fathers in families where the mother is not employed outside the home.

In addition, fathers' response to maternal employment may be contingent upon age of youngest child: the association between father care and maternal employment may be greatest among those with very young children, both because child care demands are high and because of the selectivity of these couples. Given that nonemployment remains common among mothers of young children, couples where both spouses are employed may be particularly committed to egalitarian work and family roles for mothers and fathers. Controls for age of children are necessary to ensure that the association between maternal employment and fathers' participation in childcare is not confounded either by the relationship between age of children and maternal employment and or by the relationship between age of children and overall childcare demands on both mothers and fathers.

## Data and Measures

### *Data*

The data in this study come from the 2003-2004 American Time Use Survey (ATUS), a nationally representative continuous time-use survey launched in 2003 by the Bureau of Labor Statistics (BLS). The ATUS interviews a randomly selected individual from a subset of the households that have completed their eighth and final interview for the Current Population Survey (CPS). The ATUS overall response rate averaged 57% in both 2003 and 2004 and the overall sample size for completed interviews was 20,720 in 2003 and 13,973 in 2004.<sup>1</sup>

We limit our analytic sample to employed, married fathers with a spouse present, with at least one own household child under age 13. We focus on fathers with children under age 13, since these families require more childcare compared to families with older children and because expanded measures of “minding” or “taking responsibility” for children were assessed for children under age 13 in the ATUS. This sample includes 3,535 fathers; 2,253 with a wife employed and 1,282 with a wife non-employed.

Table 1 provides characteristics for the total sample of fathers as well as for those with and without an employed spouse. Fathers with a non-employed wife have much younger children than those with an employed wife. Whereas 45 percent of those with a non-employed wife have a child under age 3, only 29 percent of those with an employed spouse have a child this young. This underscores the need to take age of children into account when assessing the relationship between fathers’ care of children and mothers’ employment.

<Table 1 about here>

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<sup>1</sup> Beginning with sample introduced in December 2003, the monthly sample was reduced from its 2003 level by 35 percent.

### *Measuring fathers' childcare*

To assess fathers' childcare time, we develop the following measures. First, we calculate fathers' primary child care time and separate primary care into four types of activities: Physical care, recreational activities, educational activities and managerial activities. Second, we measure the amount of this primary childcare that the father provides on his own and label this "solo" primary care time. Third, we measure the time when fathers report doing any activity with a child present, that is, his total time with children during the diary day. Finally, we assess the new measure of "minding time" or "responsibility for care" afforded by the ATUS.

#### Primary care activities

In the ATUS, respondents report what they were doing sequentially over a 24-hour period, beginning at 4:00am one day and ending at 4:00am the following day. Similarly to previous time use surveys, the ATUS asks questions of "what were you doing?" and "who was with you/who accompanied you?" about each activity. We sum up each time segment when a father reports doing childcare activities, such as feeding children, changing diapers, etc. The total amount of childcare time measured in this method is counted as the primary care time, given that fathers were directly engaged in caregiving activities and a child is the main focus of the activity. We disaggregate total childcare activities into four subsets of activities.

1. *Physical care activities.* These are basic caregiving activities that parents provide to ensure children's physical well-being. Physical care includes activities such as feeding children, dressing children, providing medical care to children, etc.

2. *Recreational activities.* This subgroup of activities includes playing with children (sports or non-sports), arts and crafts with children, and other leisure activities.



3. *Educational activities.* These activities include reading to children, talking with/listening to children, and helping/teaching children how to do things, helping with children's homework.

4. *Managerial activities.* This subgroup of activities involves general parental responsibilities such as arranging childcare services, picking up/dropping off children, supervising and monitoring children, attending children's events, meetings, and school conferences, etc.

Detailed childcare activity codes in the ATUS can be found in Appendix Table 1.

#### Solo primary childcare

Because the primary care time can include other adults, in particular a child's mother, we sum up the amount of time when a father reports doing childcare activities without his spouse present. The level of father engagement in childcare activities may be higher, or at least different, when he is alone with his children than when the mother is also present. We also calculate the ratio of time in childcare activities without a spouse present to total time in childcare activities to indicate the extent of fathers' solo responsibilities.

#### Total time with children

Respondents in the ATUS also answer the "who was with you/who accompanied you?" question about each activity that is typical of time diary data collection. This "total time with children" measure captures the time when fathers are with their children and accessible to children, although fathers might be doing non-childcare related activities. For example, a father could be making a household repair or watching TV and as long as children are mentioned as being with him in response to the time diary questioning "who was you with?" during the activity, that time is counted as his time with children. We add up the time when a father reports

that a child is with him over the 24-hour period covered by the time diary. Compared to the primary time measure, the “total time with children” measure is more expansive because it includes both fathers’ childcare and non-childcare time. However, it also includes time that requires less attention of fathers than when they are directly doing something with or for children.

### Minding time

The “state of mind” aspect of childcare was recognized in Budig and Folbre (2004) who, in a critique of activity-based childcare measures, noted that parents are often aware of what their children are doing even though they may not be physically with children. This measure is rarely captured in time diary surveys however. The ATUS provides a new childcare measure that at least partially captures this minding component of childcare. For households with children under age 13, after the respondent completes the 24 hour time-diary activity report, the interviewer asks when during the day a child under age 13 was “in your care.”

“In your care” time does not include children’s sleep time; it begins at the time the first child under age 13 wakes up and ends when the last child under age 13 goes to sleep, time when the respondent is asleep is also not included. If respondents are unclear about what “in your care” means, the interviewer provides this definition: “By ‘in your care’ I mean that you were generally aware of what your child was doing, and you were near enough that you could provide immediate assistance, if necessary”(Schwartz 2002). The “in your care” measure does not require parents be with their children when an activity happens; it merely requires parents be generally aware of what their child is doing and be nearby and able to attend to the child’s needs. Therefore, this measure may capture some broader aspect of responsibility for children. This is

the first measure introduced into time diary surveys that touches on the “state of mind” or passive nature of childcare and may pick up a portion of the “minding” part of childcare.

#### *Other Covariates and Control Variables*

*Mother’s employment status* is coded 1 if the mother works outside the home and 0 if she does not. We tested a measure of mother’s employment status using three categories: not employed, employed part-time (1-34 hours per week), and employed full-time (35+ hours per week). There were few significant differences between mothers’ working part time and full-time in relation to fathers’ childcare time. Therefore we use the simpler dummy variable here to capture the mother’s employment status.

Characteristics of children are captured in three variables. *Age of youngest child* is a continuous variable coded in years. When we conduct separate analyses of fathers by age of youngest child, fathers are categorized into three age groups: those with at least one infant/toddler (child age 0-2 years), those with preschool age children but no younger children (child age 3-5 years), those whose children are all school age or older (child age 6-12 years). We also include number of children under age 13 and whether the family has a male child under age 13. *Presence of a son* is coded 1 if the family has a son under age 13, and 0 if not.

*Fathers’ education* is measured in four categories: high school or below, some college, college graduate and postgraduate education. High school or below is the reference category. *Fathers’ work hours* measure the usual total hours that fathers work per week. In 114 cases where fathers reported that their work hours varied, hours were assigned the mean hours that fathers work per week. An imputation flag is included in the analysis. *Age of the father* is a continuous variable coded in years. *Race/ethnicity of father* has four categories: non-Hispanic White, non-Hispanic Black, Hispanic, and other race. Non-Hispanic White is the reference

Category. *Weekend diary day* is a dichotomous variable which equals to 1 if the diary day is a weekend day, 0 if the diary day is a weekday.

### *Analysis Plan*

We first present estimates of paternal involvement based on our extended measures, including binary t-tests of whether fathers' childcare time differs by mother's employment status. We then estimate a series of tobit models of father's primary childcare time (and time in different childcare activities), solo primary childcare, time with children and minding time to investigate the relationship of maternal employment to father care, with and without controls for age of youngest child and other covariates. Finally, we conduct analyses on subgroups of fathers, categorized by age of youngest child, to determine whether the relationship between fathers' childcare time and mothers' employment status changes as children age. All analyses are weighted to adjust for the sample stratification and oversampling in the ATUS and the differential nonresponse rates across demographic groups and days of the week.

### **Results**

Table 2 shows average minutes per day that employed, married fathers spend with their children in all two-parent families and in families with and without an employed mother. On average, American married fathers spend about 65 minutes, or slightly more than an hour a day, in primary childcare activities. Consistent with past research, fathers who are sole earners report similar amounts of time in primary childcare activities as fathers in dual-earner families. There are no significant differences between the two groups of fathers in any of the four subcategories of childcare activity: physical care, recreational, educational or managerial activities.

<Table 2 about here>

However, when we change the focus to solo childcare time, fathers with employed wives spend significantly more time doing childcare than fathers with stay-at-home wives: 44 minutes

versus 33 minutes per day, respectively. The mean differences are statistically significant for two subcategories of solo care: time doing recreational and managerial childcare activities. The ratio of solo childcare activities to the total primary childcare time indicates that about 52 percent of fathers' childcare is done without a spouse present in single-earner families compared with 67 percent for fathers in dual-earner families.

Another measure often used in past research, the total amount of time a father spends with his children on the diary day, also shows no significant difference between spouse-employed fathers and spouse-at home fathers. Both groups of fathers report spending about 270 minutes, or four and a half hours, per day with their children. However, on the measure that taps the "minding" aspect of childcare or fathers' responsibility for the care of their children - the minutes per day when children under age 13 are reported as "in their care" - fathers with an employed wife report about half an hour more "minding time" per day than fathers with wives who are at home full time ( $P < .01$ ).

#### *Spousal employment and father involvement*

Table 3 shows the effect of maternal employment in tobit models predicting fathers' childcare. The first column presents the association when the only predictor is maternal employment and replicates the bivariate crosstabular results in table 2. The second column adds a control for age of youngest child. The third column adds all the other covariates. Full results for the models with all the covariates are reported in Appendix tables 2 and 3.

<Table 3 about here>

Similar to the t-test results in Table 2, the tobit model shows that a spouse being employed is not associated with fathers' overall primary childcare time. The maternal employment coefficient is statistically significant for one of the subcategories of childcare

activities: fathers with an employed spouse spend more time in managerial childcare activities than fathers with a spouse at home full time. After we introduce a control for age of youngest child, fathers with an employed wife spend significantly more time in primary childcare than fathers with a spouse who is not employed. Maternal employment also has a positive effect on fathers' time in three childcare activities: physical care, recreational and managerial childcare activities. In the full model with additional controls for number of children, presence of son, fathers' education, work hours, age, race/ethnicity and weekend diary day, fathers' time in recreational childcare activities is no longer different by maternal employment, but the effect of maternal employment on fathers' primary childcare time, physical and managerial childcare time remains statistically significant.

The results above suggest that the relationship between maternal employment and fathers' primary childcare time was suppressed before the control of age of youngest child. Fathers with an employed wife do more overall childcare, particularly more of the routine, physical caregiving that children require and more of the work it takes to manage children's lives. In other words, fathers' response to maternal employment is in the routine, perhaps less "fun" but regular aspects of childcare.

Maternal employment also is significantly associated with both fathers' solo primary childcare time and their "minding time": Fathers with an employed wife spend more time taking care of children alone and spend more time minding and being responsible for their children than fathers with a wife at home full time. Introducing a control for age of youngest child increases the size of the coefficient for solo time. The statistically significant coefficient on the "minding time" measure does not change with the addition of an age of youngest child control but is reduced when the other covariates are added to the model. As in past research and in the

bivariate results in Table 2, no significant difference is found for the measure of “total time with children” between fathers with an employed wife and fathers with a wife who is home full time, even after controls for age of youngest child and other covariates.

#### *Subgroup Analysis of Fathers by Age of Youngest Child*

To further examine how age of youngest child is related to paternal childcare and maternal employment, Table 4 presents average minutes per day fathers spend with their children for subgroups of fathers whose youngest child is ages 0-2, ages 3-5, and ages 6-12. Estimates are again shown separately for those with and without an employed spouse. In general, fathers’ childcare time seems most highly associated with maternal employment when children are very young. Fathers with infants and toddlers (a child under age 3) spend more time in primary care when their wives are employed ( $p < .001$ ), and the mean difference is also statistically significant for time providing physical care and doing recreational activities with children ( $p < .05$ ). Further, fathers of children under age 3 with employed wives spend more time doing childcare alone than fathers with wives at home full time – more overall solo time and more solo time in physical, recreational and managerial activities.

<Table 4 about here>

Fathers whose youngest child is preschool age provide more solo care ( $p < .05$ ), spend slightly more time in solo educational activities ( $p < .05$ ), spend more overall time with children ( $p < .05$ ) and report more time minding their children ( $p < .01$ ) when their wives are employed than when their wives are home full time. Finally, only two differences achieve statistical significance among fathers with school age children (ages 6-12). Fathers with employed wives report slightly more physical care and more solo care of children than fathers with a nonemployed wife ( $p < .05$ ).

As expected, age of youngest child is related to both fathers' time in childcare and mothers' employment status. Fathers with school age children spend less than half of the time that fathers with infants and toddlers spend in primary childcare (43 versus 88 minutes per day on average). Fathers' solo primary childcare time and total time with children also declines as their children age. The only exception is fathers' minding time, which remains fairly constant across child age groups (at about 4 ½ hours per day). At the same time, the employment rate among mothers is higher when children are older. About 54% of mothers are employed outside the home when they have an infant/toddler compared with 64 % of mothers with a preschool age child and 72 % of mothers when the youngest child is school age.

Table 5 presents the effect of maternal employment in tobit models predicting fathers' childcare time for fathers whose youngest child is an infant/toddler, a preschoolers, or a school aged child. Table 5 presents the coefficient for mother's employment status for models predicting four outcomes: father's primary care time, solo care time, overall time with children and minding time. In each model, we control for number of children<13, presence of a son, fathers' education, work hours, age, race/ethnicity and weekend diary day but we only show the coefficient for a mother's employment status in the table.

<Table 5 about here>

Compared to fathers with a non-employed wife, fathers with an employed wife do significantly more primary childcare only when they have infants and toddlers at home. However, spouse-employed fathers provide more solo childcare than sole-breadwinner fathers regardless of their youngest child's age, although the effect is the strongest when fathers have infants and toddlers at home. In contrast, the link between spousal employment and fathers' minding time is not statistically significant among fathers whose youngest child is under 3 years



old, but increases in size and becomes statistically significant among fathers whose youngest child is ages 3-5. It remains highly significant among fathers whose youngest child is school age. This could be due in part to the nature of “minding” time, which does not require fathers to be with the child. It is easier and probably more practical to mind older children without being with them and directly interacting with them. Older children continue to require monitoring and supervision, though care can be more passive. Results corroborate those of Russell (1982) who suggests fathers with employed wives take more responsibility for this passive care than fathers with wives at home full time.

## **Conclusions**

In this paper, we replicate past findings that fathers with and without an employed spouse are virtually identical on the two most commonly used time diary measures of father involvement - total time in primary childcare activities and the total amount of time fathers spend with their children. This presented us with a conundrum: how could it be that fathers spend about the same amount of time with their children whether or not they are married to an employed wife? Are fathers’ investments in the home impervious to what mothers do? Shouldn’t employed mothers be in a position to expect and demand greater father involvement in childrearing than non-employed mothers, other things equal? Or, at minimum, should there not be some positive selection of men who desire more responsibility for childrearing into marriages where women desire to combine children and employment and hence need a more egalitarian division of labor in the home?

We show that past findings are not so much wrong as incomplete and hence potentially misleading. When we expand the conceptualization of father care to measures that we argue better captures taking responsibility for childrearing, we are able to show that there is a positive

association between maternal employment and fathers' participation in childcare. The greater involvement of fathers occurs in the aspects of care where one might expect to find it if mothers' employment makes a difference in what fathers do.

First, spouse-employed fathers take over more fundamental childcare rather than just playing with children or doing other "fun" activities, things fathers have always done with and for their children. Once we control for age of youngest child, we discover that the overall time fathers are engaged in childcare activities is higher for those with an employed spouse. Even more compelling, once controls are introduced, we see greater father involvement in the domains where fathers have been more often absent in the past – doing the actual physical care of children and taking part in the activities that are required to orchestrate and manage the life of young children.

Perhaps not surprisingly, fathers married to an employed mother also "fly solo" more often than fathers with a non-employed wife: They more often care for children on their own. Spouse-employed fathers also report more time when their children are in their care, and thus report more responsibility for minding children than sole-breadwinner fathers. These findings are in line with those in the literature on nonstandard work schedules that suggest that fathers increase their care of children when mothers work nonstandard hours (Presser 2003; Wight et al. forthcoming).

There is also a way in which fathers remain rather impervious to family demands. Unlike mothers, fathers rarely alter their labor force participation greatly to provide childcare. No matter how young their children or whether or not a wife is employed, fathers tend to report an average of about 45 hours per week in paid work in the Current Population Survey (Bianchi and Raley 2005). This is the big limit on fathers' time in the home – employed and non-employed

mothers are married to men with about the same amount of time “left over” after work each week for everything else, including spending time with their children. This is largely why there is one time measure that never shows a difference between fathers with and without an employed spouse: fathers’ total time with their children. What differs between the two groups of families is that fathers with employed wives do more solo care of children and parents do less care together.

We do not provide incontrovertible evidence that maternal employment propels fathers into greater involvement with their children. Our data are cross-sectional and findings are consistent with a number of interpretations, some postulating a causal role for maternal employment, some not. For example, we find that when childcare demands are highest – in families with infants and toddlers – differences in involvement in childrearing are greatest between fathers with employed and non-employed spouses. These findings could reflect a number of possibilities. A causal interpretation would be that strong demands, from children who need care and from working mothers who need assistance in providing that care, encourage greater father involvement. Or, perhaps more recent cohorts of fathers (who have the youngest children in this study) are especially committed to greater involvement in childrearing and this is why we find stronger differences among those with infants and toddlers. It is also possible that the association between fathers’ primary childcare time and a mother’s employment is strongest, and often only statistically significant, when couples have very young children (under age 3) because dual earning among these couples only occurs among a select group committed to shared parenting and shared breadwinning.

Our goal in this study has been to suggest the mechanisms that might result in higher father involvement when wives are employed and then to demonstrate that past findings of no difference in father involvement by maternal employment are not sufficiently nuanced to be

totally accurate. Our results suggest that the question may no longer be whether or not fathers are responsive to maternal employment, but in what measure they are responsive and when they are responsive. We believe this broader investigation of fathers' participation in childcare is critical to better theorizing about the interrelationship between men's and women's paid and unpaid work.

In sum, our results are consistent with the possibility that fathers are changing in the face of greater demands from working mothers, the one caveat being that fathers remain far less likely than mothers to make any alteration in the number of hours they are employed in the face of increased childcare demands. Results from the latest national time diary data, the ATUS used in this study, suggest that today's married American fathers do take over more childcare responsibilities when their wives are working outside home, and this happens most often in households where demands are greatest. Future analyses will need to consider the complex web of interactions among age of children and childcare demands, mothers' decisions about remaining in or dropping out of the labor force, and fathers' willingness to be involved in childrearing if we are to accurately assess whether gender equality in the home and in the workplace is increasing or is stalled indefinitely.

## REFERENCES

- Aldous, Joan, Gail M. Mulligan, and Thoroddur Bjarnason. 1998. "Fathering Over Time: What Makes the Difference?" *Journal of Marriage and the Family* 60(4):809-20.
- Allard, Mary D., Suzanne M. Bianchi, Jay Stewart, and Vanessa Wight. 2007. "Measuring Time Spent in Childcare: Can the American Time Use Survey Be Compared to Earlier U.S. Time Use Surveys?" *Monthly Labor Review* 130 (May): 27-36.
- Belsky, Jay, Mary Lang, and Michael Rovine. 1985. "Stability and Change in Marriage Across the Transition to Parenthood" *Journal of Marriage and the Family* 47:855-866.
- Bianchi, Suzanne M. 2000. "Maternal Employment and Time With Children: Dramatic Change or Surprising Continuity?" *Demography* 37(4):401-14.
- Bianchi, Suzanne M. 2006. " 'What Gives' When Mothers are Employed? Parental Time Allocation in Dual earner and Single Earner Two-Parent Families." Paper prepared for "The Families and Work Research Conference," Brigham Young University, Provo, Utah.
- Bianchi, Suzanne M. and Sara Raley. 2005. "Time Allocation in Working Families." Pp. 21-42 in S.M. Bianchi, L.M. Casper, and R.B. King (eds), *Work, Family, Health and Well-Being*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Bianchi, Suzanne M., John P. Robinson, and Melissa. A. Milkie. 2006. *Changing Rhythms of American Family Life*. New York: Russell Sage.
- Bittman, Michael, Lyn Craig and Nancy Folbre. 2004. "Packaging Care: What Happens When Children Receive Nonparental Care?" Pp. 133-151 in Nancy Folbre and Michael Bittman (eds). *Family Time: The Social Organization of Care*. New York: Routledge.
- Brayfield, April. 1995. "Juggling Jobs and Kids: The Impact of Employment Schedules on Fathers' Caring for Children." *Journal of Marriage and the Family* 57(2):321-32.
- Budig, Michelle J. and Paula England. 2001. "The Wage Penalty for Motherhood." *American Sociological Review* 66 (2):204.
- Budig, Michelle J. and Nancy Folbre. 2004. "Activity, Proximity, or Responsibility ? Measuring Parental Childcare Time." Pp. 51-68 in *Family Time: the Social Organization of Care*, eds. Michelle J. Budig and Nancy Folbre. London and New York: Routledge.
- Correll, Shelley J., Stephen Benard, and In Paik. 2007. "Getting a Job: Is There a Motherhood Penalty?" *American Journal of Sociology* 112:1297-1338.
- Cowan, Philip A. 1988. "Becoming a Father: A Time of Change, An Opportunity for Development." Pp.13-36 in *Fatherhood Today: Men's Changing Role in the Family*, edited by Phyllis Bronstein and Carolyn Pape Cowan. New York: Wiley.

- Craig, Lyn. 2006. "Does Father Care Mean Fathers Share?: A Comparison of How Mothers and Fathers in Intact Families Spend Time With Children." *Gender and Society*, 20:259-281.
- Crouter, Ann. C., M. Perry-Jenkins, T. L. Huston, and S. M. McHale. 1987. "Processes Underlying Father Involvement in Dual-earner and Single-earner Families." *Developmental Psychology*, 23(3), 431-440.
- Crouter, Ann. C and Susan. M. McHale. 1993. "Temporal rhythms in family life: Seasonal variation in the relation between parental work and family process". *Developmental Psychology*, 29(2), 198-205.
- Crouter, Ann C. and M. Sue Crowley. 1990. "School-age children's time alone with fathers in single- and dual-earner families: Implications for the father-child relationship". *Journal of Early Adolescence*, 10, 296-312.
- Folbre, Nancy, Jayoung Yoon, Kade Finnoff, and Allison Sidle Fuligni. 2005. "By What Measure" Family Time Devoted to Children in the United States." *Demography* 42 (May): 373-390.
- Furstenberg, Frank F. 1993. "Good Dads-Bad Dads: The Two Faces of Fatherhood." *The Changing American Family and Public Policy*, Editor Andrew J. Cherlin. Washington, DC: The Urban Institute.
- Jacobs, Jerry A. and Kathleen Gerson. 2004. *The Time Divide: Work, Family and Gender Inequality* Harvard University Press.
- Hofferth, Sandra L. and Kermyt G. Anderson. 2003. "Are All Dads Equal? Biology Verus Marriage and a Basis for Paternal Investment." *Journal of Marriage and Family* 65(1):213-32.
- Ishii-Kuntz, Masako and Scott Coltrane. 1992. "Predicting the Sharing of Household Labor: Are Parenting and Housework Distinct ? " *Sociological Perspectives* 35:629-47.
- Kimmel, Jean and Rachel Connelly. 2007. "Mothers' Time Choices: Caregiving, Leisure, Home Production, and Paid Work" *Journal of Human Resources* 42 (3):643-673
- Lareau, Annette. 2003. *Unequal Childhoods*. Berkeley, CA: University of California Press.
- Mammen, Kristin. 2005. "Fathers' Time Investments in Children: Do Sons Get More?" Paper presented at American Time Use Survey Early Results Conference, Bethesda, MD
- Mattingly, Marybeth and Suzanne M. Bianchi. 2003 "Gender Differences in the Quantity and Quality of Free Time: The U.S. Experience" *Social Forces*, 81 (3) 999-1030.
- Marsiglio, William. 1991. "Paternal Engagement Activities With Minor Children." *Journal of Marriage and the Family* 53(4):973-86.

- Powell, Brian, Lala Carr Steelman, and Robert M. Carini. 2006. "Advancing Age, Advantaged Youth: Parental Age and the Transmission of Resources to Children." *Social Forces* 84:1359-90.
- Pleck, Joseph H. 1985. *Working Wives, Working Husbands*. Beverly Hills: Sage.
- Pleck, Joseph H. 1997. "Paternal Involvement: Levels, Sources, and Consequences." Pp. 66-103 in *The Role of the Father in Child Development*, 3rd ed. Ed. M. E. Lamb. New York : Wiley and Sons.
- Presser, Harriet B. 2003. *Working in a 24/7 Economy: Challenges for American Families*. New York: Russell Sage Foundation.
- Raley, Sara B., Marybeth J. Mattingly, and Suzanne M. Bianchi. 2006. "How Dual Are Dual-Income Couples? Documenting Change from 1970 to 2001." *Journal of Marriage and Family* 68 (February): 11-28.
- Russell, Graeme. 1982. "Maternal Employment Status and Fathers' Involvement in Child Care" *Journal of Sociology* 18(2): 172-179.
- Sandberg, John F. and Sandra L. Hofferth. 2001. "Changes in Children's Time With Parents: United States, 1981-1997." *Demography* 38(3):423-36.
- Sayer, Liana C., Suzanne M. Bianchi, and John P. Robinson. 2004. "Are Parents Investing Less in Children? Trends in Mothers' and Fathers' Time With Children." *American Journal of Sociology* 110(1):1-43.
- Schwartz, Lisa K. 2002. "The American Time Use Survey: Cognitive Pretesting." *Monthly Labor Review* (February):34-44.
- Wight, Vanessa R., Sara B. Raley, and Suzanne M. Bianchi. Forthcoming. "Time for Children, One's Spouse and Oneself Among Nonstandard Workers." *Social Forces*.
- Yeung, W. Jean., Pamela E. Davis-Kean, John F. Sandberg, and Sandra L. Hofferth. 2001. "Children's Time with Fathers in Intact Families." *Journal of Marriage and Family* 63:136-54.
- Zick, Cathleen D. and Keith W. Bryant. 1996. "A New Look at Parents' Time Spent in Child Care: Primary and Secondary Time Use." *Social Science Research* 25:1-21.

Table 1. Employed Fathers' Characteristics by Wife's Employment Status (N=3,535)

	All	Wife not Employed	Wife Employed
<i>Fathers</i>			
Age	37.6	36.8	38.1
Education (%)			
High school or below	38.7	41.6	37.0
Some College	24.5	19.6	27.3
College graduate	23.2	23.0	23.4
Postgraduate	13.6	15.8	12.3
Work Hours	46.8	46.7	46.8
<i>Race/Ethnicity (%)</i>			
Non-Hispanic White	67.0	61.6	70.2
Non-Hispanic Black	8.3	6.3	9.4
Hispanic	18.9	25.8	14.9
Other	5.8	6.3	5.5
<i>Children</i>			
Age of Youngest Child	4.9	3.9	5.5
Number of Children under Age 13	1.8	2.0	1.7
Presence of a son	0.7	0.7	0.7
<i>Age of Youngest Child (%)</i>			
0-2	35.0	44.8	29.1
3-5	24.7	25.5	24.3
6-12	40.3	29.8	46.6
N	3,535	1,282	2,253

Note: Weighted percentages and means are provided.

Source: American Time Use Survey 2003 and 2004



Table 2. Minutes Per Day Fathers Spend with Their Children by Wife's Employment Status

	All	Wife not Employed	Wife Employed
<b>Primary Childcare Time</b>			
Total	64.7	63.3	65.4
Physical	19.7	19.5	19.8
Recreational	18.6	18.6	18.6
Educational	7.6	7.7	7.6
Managerial	17.8	16.6	18.5
<b>Solo Primary Childcare Time</b>			
Total	39.7	32.9	43.8 ***
Physical	11.4	10.2	12.2
Recreational	11.8	9.9	13.0 *
Educational	4.7	4.0	5.1
Managerial	11.2	8.8	12.7 **
<b>Ratio: Solo Time/ Total Primary Time (%)</b>			
	61.4	52.0	67.0
Total Time with Children	269.7	270.1	269.4
Minding or "In Your Care" Time	265.3	247.4	276.0 **
N	3,535	1,282	2,253

Note : Weighted means and t-test results are provided.

\*  $P < .05$  \*\*  $P < .01$  \*\*\*  $P < .001$  (two-tailed )

Table 3. Tobit Models of the Effect of Maternal Employment on Father Care

	No Controls	Control for Age of Youngest Child	Full Model
	tobit	tobit	tobit
Primary Childcare Time			
Total	5.72 (5.20)	21.14 *** (5.15)	19.18 *** (5.15)
Physical	2.59 (3.71)	18.13 *** (3.58)	16.99 *** (3.58)
Recreational	-7.25 (8.46)	18.75 * (8.37)	12.33 (8.45)
Educational	3.05 (4.42)	2.91 (4.53)	7.53 (4.57)
Managerial	15.75 ** (5.38)	13.88 * (5.46)	15.13 ** (5.60)
Solo Primary Childcare Time	23.85 *** (5.03)	34.47 *** (5.03)	33.05 *** (5.08)
Total Time with Children	-0.81 (8.78)	13.78 (8.87)	6.04 (7.99)
Minding Time	42.83 *** (10.63)	43.14 *** (10.85)	31.10 ** (9.72)

*Notes* : Entries are Tobit regression coefficients with standard errors in parentheses. Each full model controls for age of youngest child, number of children < 13, presence of a son, fathers' education, work hours, age, race/ethnicity and weekend diary day.

\*  $P < .05$  \*\*  $P < .01$  \*\*\*  $< .001$  (two-tailed)

Table 4. Minutes per Day Fathers Spend with Their Children by Age of Youngest Child and Wife's Employment Status

	0-2			3-5			6-12		
	All	Wife not Employed	Wife Employed	All	Wife not Employed	Wife Employed	All	Wife not Employed	Wife Employed
<b>Primary Care</b>									
Total	88.0	76.7	98.3 ***	67.2	65.4	68.3	42.9	41.5	43.5
Physical	34.9	29.9	39.5 *	18.8	17.6	19.6	7.1	5.5	7.7 *
Recreational	30.4	25.8	34.6 *	21.4	21.1	21.6	6.6	5.5	7.0
Educational	6.5	7.3	5.8	8.3	7.7	8.7	8.1	8.4	8.1
Managerial	14.9	13.3	16.5	18.4	18.9	18.1	19.9	19.6	20.0
<b>Solo Primary Care</b>									
Total	51.7	37.8	64.4 ***	42.2	35.9	46.2 *	27.8	23.1	29.6 *
Physical	19.8	15.4	23.9 **	11.2	9.3	12.4	4.3	3.2	4.7
Recreational	18.5	12.9	23.6 ***	14.1	11.8	15.5	4.7	3.7	5.1
Educational	3.7	3.4	4.0	5.6	3.9	6.6 *	5.0	5.1	5.0
Managerial	9.0	6.1	11.6 **	11.2	10.8	11.4	13.3	11.1	14.1
Time with Children	304.6	303.6	305.5	275.1	255.1	287.6 *	236.1	232.6	237.4
Minding Time	258.6	252.9	263.7	268.6	237.2	288.3 **	269.1	247.8	277.2
<b>Percent of Wife Employed (%)</b>									
			54.4			63.5			71.7
N	1,217	555	662	875	319	556	1,443	408	1,035

Note: Weighted means and t-test results are provided.

\*  $P < .05$  \*\*  $P < .01$  \*\*\*  $P < .001$  (two-tailed)

Table 5. Tobit Models of the Effect of Maternal Employment on Father Care Time by Age of Youngest Child

	0-2	3-5	6-12
	tobit	tobit	tobit
Primary Care	29.23 *** (8.78)	2.19 (9.66)	13.02 (8.03)
Solo Primary Care	45.56 *** (8.72)	26.00 * (10.24)	17.90 * (7.40)
Time with Children	6.11 (13.04)	10.73 (16.14)	8.48 (12.91)
Minding Time	18.44 (15.63)	43.34 * (19.54)	45.40 ** (15.99)

*Note* : Entries are Tobit regression coefficients with standard errors in parentheses. Each model controls for number of children<13, presence of a son, fathers' education, work hours, age, race/ethnicity and weekend diary day.

\*  $P < .05$  \*\*  $P < .01$  \*\*\*  $< .001$  (two-tailed )

Appendix Table 1. Time Diary Activity Codes for Childcare Activities Used in the Study

Category	Specific Activity	ATUS Activity code		
		1st	2nd	3rd
Physical care	Physical care for children	03	01	01
	Providing medical care to children	03	03	01
Recreational	Playing with children, not sports	03	01	03
	Arts and crafts with children	03	01	04
	Playing sports with children	03	01	05
Education	Reading to/with children	03	01	02
	Homework	03	02	01
	Home schooling of children	03	02	03
	Helping/teaching children (not related to education) <sup>a</sup>	03	01	07
	Talking with/listening to children	03	01	06
Managerial	Organization & planning activities for children	03	01	08
	Attending children's events	03	01	10
	Meetings and school conferences	03	02	02
	Picking up/dropping off children	03	01	12
	Obtaining medical care for children	03	03	02
	Looking after children (e.g., supervising, monitoring)	03	01	09
	Travel related to caring for & helping children	17	03	01
	Arranging childcare service	08	01	01
	Waiting associated with childcare service	08	01	02
	Calling for childcare service	16	01	07
	Waiting for/with children	03	01	11
	Waiting associated with children's health	03	03	03
	Waiting associated with children's education (e.g., meet with child's teacher)	03	02	04

a. This activity code is deleted in the ATUS 2004 coding lexicon.

Source: American Time Use Survey Activity Lexicon 2003 and 2004

Appendix Table 2. Tobit Models of Fathers' Childcare Time (Minutes per Day) in Different Measures (N=3,535)

	Primary time tobit	Solo Primary time tobit	Time with Children tobit	Minding Time tobit
<i>Spouses</i>				
Employment Status	19.18 *** (5.15)	33.05 *** (5.08)	6.04 (7.99)	31.10 ** (9.72)
<i>Children</i>				
Age of Youngest Child	-10.23 *** (0.85)	-8.71 *** (0.83)	-9.00 *** (1.30)	1.12 (1.58)
Number of Children <13	7.00 * (3.12)	0.26 (3.06)	-3.70 (4.93)	8.14 (5.97)
Presence of a Son	20.27 *** (5.36)	18.45 *** (5.23)	30.04 *** (8.26)	8.53 (10.01)
<i>Fathers</i>				
Education (vs. High School or Below)				
Some College	37.80 *** (6.38)	35.90 *** (6.26)	23.86 * (9.88)	18.69 (11.96)
College	44.84 *** (6.68)	36.19 *** (6.54)	20.01 (10.43)	28.05 * (12.65)
Postgraduate	51.73 *** (8.06)	45.91 *** (7.83)	48.13 *** (12.66)	38.87 * (15.32)
Work Hours	-1.36 *** (0.22)	-1.13 *** (0.21)	-2.53 *** (0.33)	-2.63 *** (0.41)
Age	0.92 * (0.41)	1.67 *** (0.40)	0.20 (0.64)	-0.20 (0.78)
<i>Other Controls</i>				
Race/Ethnicity (vs. non-Hispanic White)				
Black	-35.04 *** (9.09)	-13.50 (8.74)	-64.40 *** (13.88)	-32.39 (16.75)
Hispanic	-36.87 *** (6.92)	-21.43 ** (6.82)	-20.77 * (10.49)	-56.05 *** (12.84)
Other	-25.32 * (10.38)	-21.14 * (10.16)	-15.23 (16.21)	-3.42 (19.60)
Weekend Diary Day	2.04 (5.26)	-23.78 *** (5.25)	232.51 *** (8.12)	281.07 *** (9.81)
Intercept	46.84 * (18.58)	-31.43 (18.23)	319.36 *** (28.61)	234.66 *** (34.71)
Loglikelihood	-14295.33	-11324.32	-22275.43	-20901.18
Censored n	1,378	1,918	272	530

Note: Entries are Tobit regression coefficients with standard errors in parentheses.

\*  $P < .05$  \*\*  $P < .01$  \*\*\*  $< .001$  (two-tailed)

Appendix Table 3. Tobit Models of Fathers' Primary Time (Minutes per Day ) with Children in Different Childcare Activities (N=3,535)

	Physical tobit	Recreational tobit	Education tobit	Managerial tobit
<i>Spouses</i>				
Employment Status	16.99 *** (3.58)	12.33 (8.45)	7.53 (4.57)	15.13 ** (5.60)
<i>Children</i>				
Age of Youngest Child	-10.96 *** (0.63)	-18.84 *** (1.57)	1.19 (0.75)	0.91 (0.89)
Number of Children <13	5.17 * (2.11)	-11.11 * (5.02)	19.26 *** (2.72)	9.11 ** (3.39)
Presence of a Son	14.09 *** (3.78)	23.46 ** (8.99)	-1.58 (4.71)	3.20 (5.73)
<i>Fathers</i>				
Education (vs. High School or Below)				
Some College	29.07 *** (4.49)	26.75 * (10.66)	24.46 *** (5.71)	19.97 ** (6.88)
College	40.63 *** (4.60)	20.45 (11.11)	27.70 *** (5.99)	22.11 ** (7.20)
Postgraduate	39.14 *** (5.56)	45.55 *** (13.24)	30.44 *** (7.09)	33.04 *** (8.59)
Work Hours	-0.60 *** (0.15)	-1.59 *** (0.38)	-0.49 * (0.19)	-0.82 *** (0.24)
Age	0.64 * (0.29)	-0.13 (0.69)	0.52 (0.37)	1.11 * (0.44)
<i>Other Controls</i>				
Race/Ethnicity (vs. non-Hispanic White)				
Black	-23.42 *** (6.54)	-59.96 *** (17.33)	-7.80 (7.88)	-3.26 (9.42)
Hispanic	-39.34 *** (5.14)	-30.80 ** (11.38)	-9.23 (6.37)	-7.10 (7.50)
Other	-17.26 * (7.05)	-26.71 (17.03)	2.74 (8.81)	-3.90 (11.02)
Weekend Diary Day	1.46 (3.64)	24.22 ** (8.54)	-27.47 *** (4.98)	-18.11 ** (5.84)
Intercept	-20.51 (12.74)	-3.77 (30.54)	-133.36 *** (17.44)	-120.70 *** (20.62)
Loglikelihood	-8746.50	-5343.41	-4363.91	-7148.73
Censored n	2125	2,795	2,946	2,612

Note: Entries are Tobit regression coefficients with standard errors in parentheses.

\*  $P < .05$  \*\*  $P < .01$  \*\*\*  $< .001$  (two-tailed)