



Published in final edited form as:

AJS. 2012 March ; 117(5): 1422–1459. doi:10.1086/663354.

## When Do Fathers Care? Mothers' Economic Contribution and Fathers' Involvement in Child Care

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### Abstract

Previous literature suggests a tenuous link between fathers' care of children and maternal employment and earnings. This study shows that the link is stronger when measures of caregiving capture fathers' increased responsibility for children. The analysis of time diary data from 6,572 married fathers and 7,376 married mothers with children under age 13 indicates that fathers (1) engage in more "solo" care of children when their wives are employed, (2) are more likely to do the kind of child care associated with responsibility for their children when their wives spend more time in the labor market, and (3) participate more in routine care when their wives contribute a greater share of the couple's earnings. In addition, the "father care" to "mother care" ratio rises when mothers contribute a greater share of household earnings.

One expectation of the "gender revolution" of the 1960s and 1970s was that women's increased employment outside the home would be accompanied by men's greater sharing in domestic activities—housework and the rearing of children. In the case of housework, the expected trends tended to emerge: men increased their involvement in housework while women dramatically reduced theirs. Men in married couples, however, never reached the level of housework that their wives did, leading many scholars to proclaim a "stalled revolution" and declare the inequalities in housework as a major and persistent area of contention in modern American families. Indeed, a flurry of sociological research emerged to address and explain how spouses—especially husbands—allocated time to housework. Theoretical models were largely premised on the (reasonable) assumption that both members of the couple considered housework to be unpleasant and were inclined to do it only if they had fewer resources, less power in the relationship, more time available, or a gender ideology consistent with doing more housework.

In the case of child care, however, a curious—and generally unexpected—finding emerged. Mothers, who were spending more time in labor market work and who seemed eager to be

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relieved of the responsibility for keeping house, invested in child care at levels as high as or higher than ever (Bianchi, Robinson, and Milkie 2006; Bianchi 2011). Further, married fathers increased their involvement with children. These trends made gender disparities in caregiving somewhat more complicated to understand than disparities in housework because they seemed inconsistent with the underlying assumption that men and women wanted to bargain out of doing child care. Even harder to explain was the fact that empirical evidence did not clearly show that fathers assumed more responsibility for caregiving in families in which wives were employed compared with families in which wives were not employed.

Despite the complexity of child care trends—or maybe because of it—the sociological literature has primarily focused on gender inequality in housework. Yet child rearing assumes a much greater proportion of American parents' time than housework. Also, studies of “the motherhood wage penalty” demonstrate that it is the division of labor surrounding children—not housework—that seems to differentiate the activities of men and women and stall movement toward greater gender equality in labor market outcomes (Waldfogel 1997; Budig and England 2001; Correll, Benard, and Paik 2007; Budig and Hodges 2010; Wilde, Batchelor, and Ellwood 2010). Rearing children tends to interfere with women's (but not men's) labor supply and investment in their human capital. Mothers are more likely than fathers to drop out of the labor force, cut back to part-time employment, take less demanding jobs, choose occupations that are more family-friendly, or pass up promotions, all of which affect their wage trajectories.

In this article, we focus on gender and child care. The literature suggests that three factors are particularly salient to understanding the gendered division of child care among married parents: parenting ideologies, time constraints, and financial resources. First, despite the movement of married mothers into the labor force over the last half century, the prevailing norms associated with parenting remain rather impervious to change. Fathers are generally expected to fulfill the role of breadwinner, whereas mothers are expected to be the primary caregiver for children. Second, all parents face the same 24-hour per day constraint when it comes to time allocation. The vast majority of fathers are employed full-time, limiting their time available for child care. Third, the more parents earn in the labor market, in both absolute and relative terms, the more power they may have to realize their time use preferences with respect to spending time with children. Although mothers may not wish to reduce their levels of child care as much as housework, their relative earning power should allow them to negotiate greater father involvement in the less pleasant aspects of child care.

We argue that some, but not all, types of father care should be sensitive to the reallocation of mothers' time to market activity—a contention that may help to explain why the correlation between mother's involvement in the labor market and father's involvement in child rearing appears to be weak. We analyze recent time diary data collected from married fathers and mothers in the 2003–7 American Time Use Survey to provide new evidence on fathers' and mothers' allocation of time to child care.

## THE GENDERED DIVISION OF CHILD CARE: PARENTING IDEOLOGIES, TIME, AND MONEY

In contrast to other types of unpaid work, caring for children is not widely viewed as undesirable work to be avoided or outsourced even when parents have strong attachments to the labor market. First, although child care can feel like drudgery at times, parents generally find it more enjoyable than housework (Robinson and Godbey 1999). Second, there is an investment component to child care that is largely absent from housework: parents are investing in the future productivity and well-being of the child (Connelly and Kimmel 2010). Involved parenting, even among dual-earner couples, is therefore generally consistent with contemporary ideologies of both good fathering and good mothering, though more so for mothers than for fathers.

Historians chronicle how fathers' involvement in child rearing changed from responsibility for the education and moral upbringing of children in colonial times to a more distant form of parenting that evolved with industrialization and urbanization and the separation of the workplace from the home (Modell 1989). Furstenberg (1993) argued that the increase in maternal employment and earnings in the latter half of the 20th century created the conditions that set the stage for a new phase in fathering, the modern involved father. At the present time, the ideal is increasingly for a father not only to be an economic provider but also to be involved in the day-to-day care of his children and to be emotionally connected to his children—not distant and detached. One empirical example of the desire (or social pressure) that men feel to be involved with their children is the finding that the majority of married fathers report that they spend “too little” time with their children (Milkie et al. 2004).

Despite this pressure on fathers for “involved parenting,” Townsend (2002) shows that the importance of being an economic provider continues to overshadow other components of fathering, including emotional nurturance. Focusing on economic provisioning for the household leads fathers to parent indirectly through surrogates, usually mothers. By supporting a wife's reduced labor force participation so that she can be more involved in the day-to-day rearing of children, many fathers feel that they provide their children with the best care and nurturance possible—their mother's care. These fathers, whose (long) work hours and earnings support a mother's withdrawal from the labor force, may tend to be less directly involved in day-to-day child rearing. Fathers whose wives remain employed, therefore, should be more involved in rearing children than fathers solely responsible for breadwinning.

Other research suggests that mothers may be more prone to “gate-keeping” in the area of child care than in housework, that is, wanting to control the quality of what is provided and ultimately finding it difficult to give up control to other caregivers, even fathers (Allen and Hawkins 1999). To the extent that there exists an ideology of “intensive mothering”—the belief that mothers should spend large amounts of time caring for children and that mothers, in particular, are the ideal caregivers for children (Hays 1996)—caregiving may be viewed by women as their domain. Women may feel more guilt than men do about the intrusion of paid work into family life and thus be more likely to want and feel they need to retain

control over the care of their children even when employed. Thus, the cultural context of mothering suggests that even when mothers are highly involved in the labor force, they are likely to devote large amounts of time to caregiving relative to their spouses.

## Time

Although mothers may be committed to spending large amounts of time with children even when they are employed, time is finite. When women allocate more time to the labor market, they presumably have less time for other activities. As mothers' time available for nonmarket activities, including child care, decreases, they are motivated to engage the assistance of others, most importantly fathers, to ensure that the most important home demands are met.

Because the vast majority of fathers are employed full-time, the overall amount of time fathers have available to spend with children is similar for fathers with and without an employed wife (Bianchi and Raley 2005). All fathers face the same 24-hour time constraint, regardless of their wife's employment status. Dual-earner fathers may, however, have more opportunities to take responsibility for child care by managing their children's activities and schedules or caring for their children without the help of an additional caregiver, particularly the mother. Families in which both parents are employed are therefore the most "time stretched" (Jacobs and Gerson 2004), with more pressure for all adults to contribute to the routine but necessary daily tasks of child rearing. This "time availability" perspective suggests that the basis for a gender-specialized division of labor is thus somewhat eroded in dual-earner families.

## Money

The greater and more continuous a woman's labor force participation, the more work experience she accumulates, and the more her earnings increase. As her earnings increase, so does the likelihood that her economic contribution to the family is substantial and the greater the economic cost to her and to her family of exiting the workplace to care for children. If mothers with high earning potential are willing to cede the care of their children to others, particularly available fathers, we might expect high-earning mothers to have a more equitable division of child care with their spouses.

England and Srivastava (2010) show, however, that it is the most highly educated mothers—who have the highest earning potential and are also the most likely to work full-time hours—who spend the most time in child care, particularly in educational and interactive forms of child care. If, as the ideology of intensive mothering suggests, mothers with high earning potential are not inclined to dramatically reduce their time in child care, their greater resources may allow these mothers to buy out of time in market work and engage in child care.

An argument prominent in the literature on housework is that as women earn more, their relative power in the relationship also increases and they become better able to negotiate a domestic division of labor that is more equitable. Most studies index power as a woman's earnings relative to those of her husband, although recently a number of studies suggest that it may be women's absolute earnings (as opposed to relative earnings) that are most strongly

linked to their own time spent in housework (Gupta 2006, 2007; see Sullivan [2011] for a review and Schneider [2011] for counterevidence). The stronger women's commitment to the labor force and the higher their earnings, or the higher their earnings relative to those of their partner, the better able they are to get what they want. In the case of housework, it is presumed that women want to do less of it.<sup>2</sup>

The "relative resources" model is not as easily applied to child care as it is to housework, given that parents express that they have too little time with children and neither men nor women may necessarily want to reduce the time they spend in child care as they would housework. Still, there are ways in which relative resources might matter. Some aspects of child rearing are less appealing than others. For example, the routine care of children, such as changing diapers, is likely to be considered less desirable than interactive care such as playing games. Similarly, the more onerous tasks associated with managing a child's life, such as scheduling doctors' appointments and arranging a child's transportation, may be tasks a high-earning spouse would seek to unload to others.

## EMPIRICAL EVIDENCE ON MATERNAL EMPLOYMENT AND FATHER INVOLVEMENT

Most studies examining women's employment and men's unpaid work in the home generally focus on housework—not including child care—and samples are generally not restricted to parents. Studies that examine child care as the focal dependent variable generally use maternal employment status as the main independent variable, with little attention to earnings. (An exception is recent work in economics by Connelly and Kimmel [2010].)

A handful of older studies found the expected positive relationship: husbands of employed women do more child care (Hiller and Philliber 1986; Barnett and Baruch 1987; Darling-Fischer and Tiedje 1990). Other studies find a positive relationship only among certain demographic groups, such as couples in academia (Biernat and Wortman 1991), or for specific child care activities such as reading to children or helping with homework (Zick and Bryant 1996). Connelly and Kimmel (2009, 2010) suggest that wives' greater hours of employment and earnings may be positively related to husbands' caregiving on weekdays when time is constrained but not on weekends.

Several studies of men's provision of child care, however, have not found the expected positive association with maternal employment, beginning with the careful early studies using time diary data or the National Survey of Families and Households (NSFH) (Yorgev 1981; Gilbert, Hanson, and Davis 1982; Huber and Spitze 1983; Lamb 1987). Using 1975–76 time use data, Pleck (1985) and Nock and Kingston (1988) found no difference in child

<sup>2</sup>In what has come to be known as the "gender deviance neutralization" perspective, studies that look at both partners' participation in housework have found a curvilinear relationship between women's relative earnings and housework (Brines 1994; Greenstein 2000; Bittman et al. 2003; Evertsson and Nermo 2004): the gender division of labor becomes more equal up to the point at which women earn as much as a spouse. Once women earn more than their spouse—and violate gender norms of male superiority in earnings—they actually strike a less equal bargain on the domestic front and end up doing more housework. Sullivan's (2011) recent review of this literature argues that there is considerable doubt about the veracity of the gender deviance neutralization perspective. Commentary by England (2011) and others suggests that much of the emphasis in the literature has been misplaced.

care time between fathers with an employed or non-employed wife. Fathers' proportional share of child care was higher when mothers were employed, but primarily because a wife's level of child care was lower and not because a husband's was higher in households with an employed wife (Pleck 1985). In another study that measured a large array of aspects of maternal employment and used the nationally representative data from the 1987–88 NSFH, Marsiglio (1991) found that wives' labor force characteristics (employment hours, percentage of couple's earnings, occupational prestige) were not related to the frequency of fathers' child care activities (e.g., reading to and playing with children, helping with homework) with preschool or school-age children. Children's time diaries from 1981 and 1997 also 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; Yeung et al. 2001).

Other studies offer hints about the areas of child rearing in which fathers might take on more responsibility when mothers are employed. An early study of a nonprobability sample of Australian couples by Russell (1982) found no differences in fathers' overall time with children by mothers' employment status but found that fathers with an employed wife did more “solo” child care, or child care when their wife was not present. A similar finding was reported for a small sample of two-parent, single- and dual-earner U.S. families in rural Pennsylvania (Crouter et al. 1987). In these Pennsylvania families, there were seasonal differences in fathers' care of children that tracked changes in mothers' labor market behavior in response to children's summer vacations (Crouter and McHale 1993). In families in which 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 between spouses ensued. In dual-earner couples in which the mother did not reduce her labor market hours in the summer, the division of child care remained more equally distributed between the mother and father.

Studies of time use show that fathers are much more likely to provide care in conjunction with mothers than on their own (Mattingly and Bianchi 2003; Budig and Folbre 2004; Craig 2006). These studies point to a potentially important dimension of child care that is intertwined with how much time a parent spends with a child—who takes responsibility for meeting children's needs. Presumably when both parents are present, responsibility is more often shared or delegated to the other parent. 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. Husbands of employed wives may spend more solo parenting time with children than sole-breadwinning husbands. When mothers are employed in nonstandard work schedules, fathers do more child care (Presser 2003; Wight, Raley, and Bianchi 2008).

A further dimension of child care that might tap “taking responsibility” is participation in the types of child care that must be done day in and day out, activities that are not always viewed as fun. Using Australian time use data, Bittman et al. (2004) showed that a spouse's market work hours were positively and significantly related to a father's time in routine child care activities (i.e., what they label “physical, high contact care”). In contrast, maternal

work hours were not predictive of father's time in interactive care (i.e., what they label as "developmental care").

Bittman et al. (2004) also found a correlation between maternal employment and father's greater report of "passive child care," that is, time when the father was in the background but keeping an eye on children. They argued that child care is not only a set of activities 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 took major responsibility for child care in couples in which the mother was employed outside the home than in those in which she was not.

## A NOTE ON NONPARENTAL CARE

Although child care does not seem to be an activity that mothers, even highly skilled, employed mothers, want to substantially reduce, Brandon (1999) has shown that the likelihood of purchasing nonparental child care increases as employed mothers' income rises. The use of nonparental care complicates the relationship between maternal labor force participation and fathers' involvement in caregiving because nonparental care might reduce mothers' time with children, fathers' time with children, or a combination of both. Most data sets in the United States do not include all the necessary information to tackle this issue: information on use of nonparental caregivers as well as both spouses' allocation of time to paid work and (unpaid) child care. The widespread use of nonparental care, particularly among dual-earner families, therefore necessitates an examination of fathers' child care time relative to that of mothers to fully understand the gendered dynamics of child care.

## THE PRESENT STUDY

To summarize the foregoing, although theoretically we expect more father involvement with children when mothers are more involved in the labor market, previous empirical work is mixed. The weak association may result, in part, from a failure to carefully examine the dimensions of care where we might expect to see the largest differences emerge, such as "taking responsibility" for children or doing the routine, less enjoyable activities of child rearing. That is, other things equal, wives with higher levels of involvement in the labor market should expect their spouse to assume higher levels of responsibility for children than wives who are not employed.

*Hypothesis 1.—The amount of time a father spends with his children without his spouse present, taking responsibility for the solo care of children, will be positively correlated with a mother's employment status and work hours.*

We do not necessarily expect wives' absolute earnings to reduce the time mothers spend in child care, and in fact, earnings may even be positively related to mothers' time in child care

if high-earning mothers are able to reduce paid work time to spend time with children. We do, however, expect wives' relative earnings to leverage the extent to which their husbands assume the more onerous aspects of child care.

*Hypothesis 2.—Fathers' involvement in the “fun” or “interactive” aspects of parenting will not necessarily vary by maternal employment, but their involvement in care activities—particularly the day-to-day caregiving tasks and management of children's activities and schedules—should be higher in families in which the wife earns a larger share of the couple's earnings.*

We also expect fathers' involvement relative to mothers' involvement in child care to be higher in families in which mothers are employed and highest when mothers are working long hours and/or outearning their husbands.

*Hypothesis 3.—On average, the amount of time fathers spend with children relative to the amount of time mothers spend with children will be much higher for families in which the mother is employed and contributing more to the couple's earnings than when she is a secondary earner or is not employed at all.*

## DATA AND MEASURES

### Data

The data in this study come from the 2003–7 American Time Use Survey (ATUS), a nationally representative cross-sectional time use survey launched in 2003 by the Bureau of Labor Statistics. The ATUS interviews a randomly selected individual age 15 and older from a subset of the households that have completed their eighth and final interview for the Current Population Survey (CPS). Interviews for the ATUS typically take place between two and four months after the household's last CPS interview. ATUS interviewing occurs continuously over the course of the year, with each ATUS respondent interviewed once. ATUS data files are released annually. We combine five years of data to increase sample sizes. The response rate was 57.8% in 2003, 57.3% in 2004, 56.6% in 2005, 55.1% in 2006, and 52.5% in 2007. We apply weights that adjust for nonresponse and oversampling of some groups. Evidence suggests that weights help to correct for sources of nonresponse bias (Abraham, Maitland, and Bianchi 2006).

By means of computer-assisted telephone interviews, respondents are called at random and asked to provide a detailed account of what they were doing between 4:00 a.m. of the previous day and 4:00 a.m. of the interview day (a 24-hour period). The randomness of the interview is important so that respondents do not preplan their activities in socially desirable ways. The respondent sequentially reports each of his or her day's activities, including when the activity began and ended, where the respondent was for each activity, and who was with the respondent during the activity. Time diary data are collected in a way that guides respondents through their day until the entire day's activities are recounted. This structure of data collection helps the respondent accurately sequence activities and forces the respondent to adhere to a 24-hour constraint so that respondents do not report implausible amounts of time use in their daily activities.

Perhaps one of the most appealing features of the time diary is that respondents are not cued to describe their involvement in particular activities selected by the interviewer. Although time diaries are not free of social desirability bias, studies repeatedly show the merits of using time diaries over direct survey questions, particularly when the behaviors of interest generally occur on a daily basis. Traditional “stylized” questions that ask people to report how much time they spend in activities invariably result in estimates of time use that exceed the 168 hours in the week. Thus, diaries are one of the most cost-effective, efficient, reliable, and valid methodologies currently available to measure time use (Robinson and Godbey 1999).

We limit our analytic sample in the ATUS to married parents with a spouse present with at least one own-household child under age 13: 6,572 fathers and 7,376 mothers. Only one respondent per household is selected to participate in the ATUS, so we do not have couple-level data on time use. We do have information on demographic and labor force characteristics for both members of the couple because the ATUS is embedded in the CPS, where this information is collected for all adults in the household. Our sample is restricted to wage and salaried workers given that the ATUS does not collect earnings data from the self-employed. This excludes about 13% of employed married fathers with children under age 13 and 12% of employed married mothers with children under age 13.

To assess how omission of self-employed individuals might affect our findings, we compared the time devoted to child care of self-employed parents to that of wage and salary workers (data not shown). Levels of child care among mothers and fathers who are self-employed or married to a self-employed spouse look quite similar to those of wage and salary workers. Further, when we examine child care participation in the context of the employment arrangements of the self-employed (full-time employed dual earner, mother part-time employed dual earner, and mother not employed), patterns are similar to what we observe in our analysis of wage and salary workers.

We focus on families with children under age 13 because these families require more child care than families with older children and our interest is in families whose child-rearing demands are the most intense. Additionally, we exclude couples in which both spouses are not employed or are nonearners. Finally, although it is possible to isolate cohabiting partners in the CPS, we choose to exclude them because previous research (and our own calculations) suggests that the division of household labor and, in particular, patterns of child care differ between cohabiting partners and married couples (Hofferth and Anderson 2003; Hofferth 2006). Cohabiting relationships in the United States tend to be unstable and shortlived, even when they include children (Cherlin 2009). Without more detailed information concerning the nature of the cohabiting relationship or the relationship of the cohabiting partner to the children in the household, it is not possible to know whether the couple is in a stable, committed relationship and whether the children in the household are the couple’s shared children. Although we also do not know whether all children in married-couple households are biologically related to both parents (i.e., some marriages include stepchildren), we assume that marriage more clearly signals partners’ permanent commitment to each other and to the family. Most American parents who reside together are married. Thus, our results on the gender dynamics of caregiving generalize to American

two-parent families in which the parents are married but not to those in less formal intimate relationships.

### Measuring Time with Children

To assess parents' care of children, we first measure the time when parents report doing any activity with a child present, that is, their *total time with children* during the diary day. Our total time with children measure captures the time when parents are with their children and are accessible to children, although parents might be doing non-child-care-related activities. For example, a parent could be making a household repair or watching television, and as long as children are mentioned as being with him/her in response to the time diary questioning "who was with you?" during the activity, that time is counted as time with children.

Second, we assess parents' *solo time with children*, or the time they spend with children when a spouse is not present. Because the estimate of total time with children can include other adults, in particular a spouse, we use the "with whom" codes to calculate the time when a parent is the only adult present with his/her children and label this solo parenting time.

Third, we calculate the amount of time parents spend in specific child care activities, labeled their *primary child care time*. We sum up each time segment when a father/mother reports doing child care activities, such as feeding children or changing diapers, to calculate a father's/ mother's total primary care of his/her children. This is time directly engaged in caregiving activities, and a child is the main focus of the activity. For all three measures of care—total time with children, solo time, and primary child care time—we convert time estimates to the metric of hours per week by adding up minutes per day in activities, converting to hours per day, and then multiplying by seven.

In addition, we examine whether a parent spent any time on the diary day in three specific types of child care activities: (1) *Physical care activities* 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, and so forth. (2) *Recreational activities* is a subgroup of activities that includes playing with children (sports or nonsports), doing arts and crafts with children, talking to children, and helping children in activities not related to their education. (3) *Managerial activities* involve general parental responsibilities such as arranging child care services, picking up/dropping off children, and supervising and monitoring children.

### Measuring Parental Employment and Economic Contribution

*Employment* measures whether the respondent held a paid job at the time of the ATUS interview. *Work hours* and spousal work hours measure the usual hours that a respondent (or the respondent's spouse) works per week in the ATUS; this is not a time diary measure but rather is taken from the CPS labor force measures in the ATUS. One complexity of the data on work hours is that respondents are given the option to report that their hours vary. We recode the work hours of the 299 respondents and 274 spouses who report that their hours

(or spouse's hours) vary to the mean employment hours (in each year). In preliminary regression models, we included a flag for these imputed cases to assess whether their inclusion might affect the results. The flag was statistically significant in the models only for solo time with children. When we ran models omitting those who reported that their work hours varied, results changed little and did not alter our conclusions. We thus retained these cases in our final models.

*Earnings* and spousal earnings are measured in absolute terms (adjusted to constant 2002 dollars) and relative terms (a wife's portion of the couple's total earnings). One complication of the ATUS data is that only the respondent's earnings are assessed at the time of the ATUS data collection. Earnings data for spouses are collected in the CPS, which is linked to the ATUS, but collected a few months prior to the ATUS data collection. Thus, we have 300 wives and 125 husbands who have positive earnings in the CPS but report nonemployment at the time of the ATUS interview (although spousal earnings are not assessed at the time of the ATUS interview, their current employment status is). Consistent with their most recent employment status, we recode those spouses who are nonemployed at the time of the ATUS interview but had positive earnings during the CPS interview as nonemployed and providing 0% of the couple's earnings.

## Controls

Household decisions about employment are strongly connected to the age of children, given that younger children generally require more intense supervision than older children (Marsiglio 1991; Yeung et al. 2001; Sayer, Bianchi, and Robinson 2004). Other things equal, the demand for father involvement in child care is greater when there are very young children. However, mothers, more than fathers, respond to this demand by reducing their level of employment (Bianchi and Raley 2005). When mothers curtail employment, this may reduce the demand for father care. As children grow older, both fathers' and mothers' child care time is reduced, but mothers are also more likely to work outside the home, thus increasing the demand for child care involvement of fathers. Because of the complexity of these relationships, fathers with employed wives and fathers with nonemployed wives may end up looking similar with respect to the overall number of hours they spend caring for their children because the age of the children differs for the two groups. Thus, we control for age of youngest and number of children.

We code *age of youngest child* into three categories: 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), and those whose youngest child is school age or older (child age 6–12 years). The omitted category for the regression analyses includes parents whose youngest child is age 6–12. 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). More children require more time over-all—though perhaps less per child because children can be minded at the same time—so an indicator for the *number of children* in the household is included in all regression models.

We also control for parents' own characteristics that might factor into their time allocation. *Parental education* is coded into five categories: less than high school, high school graduate

only (the omitted category in the regression analyses), some college education, college graduate, and postgraduate education. Better-educated fathers spend more time with children than fathers with no college education, other things equal (Yeung et al. 2001; Bianchi et al. 2004). Yet, less educated, working-class fathers often care for children while mothers work outside the home in order to reduce child care expenses (Casper and O'Connell 1998).

*Age of the parent* is a continuous variable coded in years. A parent's age may also affect his/her time with children. Younger parents may need to invest greater effort in career building and improving their job skills and opportunities whereas older parents may feel secure at work, have more flexibility in their jobs, and therefore be better able to contribute to child care (Pleck 1985, 1997).

*Race/ethnicity* is measured in four categories: non-Hispanic white (omitted category in the regression analyses), non-Hispanic black, Hispanic, and other race. Previous research suggests race and ethnic differences in fathers' interaction with their children. For example, Hofferth (2003) found that black fathers monitored their children more, Hispanic fathers monitored their children less, and both minority groups exhibited more responsibility for child rearing than white fathers.

Finally, the regression models control for aspects of the diary that vary across respondents. We include indicator variables for *year*, *season*, and *day of the week*. Because we pool data collected over five years, we include an indicator for year (with 2003 the omitted year in the regression analyses). Rhythms of family life may also differ during the summer when children are not in school, and hence we include an indicator for diaries done during the summer months. Fathers' (and mothers') availability varies by day of the week, with employed fathers spending more time with children on weekends than on weekdays (Yeung et al. 2001). Weekend days are less constrained by school and work schedules, and weekends may also be a time in which mothers and fathers contribute more equally to child care, as the gendered division of housework tends to be more equal on weekends (Riley 2009). We therefore include an indicator for diaries done on weekend days.

### Analytic Strategy

We use a nested modeling strategy in which we estimate fathers' and mothers' time with children using their own labor market characteristics as well as their spouses' characteristics as predictors. First, we focus on the wife's employment characteristics as predictors: her employment, weekly hours of work, and weekly earnings. Next we estimate a model that includes only the husband's labor force characteristics: employment, hours, and earnings. This allows us to assess whether a father's time in child care is associated with a wife's labor force characteristics, his own labor force involvement, or both. A third model shows the association between the wife's share of the couple's joint earnings in order to see if there is a correlation between relative earnings and fathers' and mothers' time spent caring for children. A fourth model predicts child care time, including both wife's and husband's labor force characteristics. This offers insight into whether a wife's employment and earnings predict a husband's child care time, net of his employment and earnings. Similarly, we can see the association of a wife's child care time with her own labor force characteristics and her husband's employment and earnings. In a final model, we add the relative earnings

variable to the model that includes the employment, work hours, and absolute earnings of both spouses in order to see the extent to which relative earnings have an association with caregiving above and beyond absolute earnings.

We use ordinary least squares (OLS) regression models to predict the measures of time in child care: total time with children, solo child care time, and time in primary child care activities. For the dichotomous indicators of whether the respondent spent any time in physical care of children, recreational care, or managerial care on the diary day, we use logistic regression to examine the association between employment and earnings characteristics and the likelihood of engaging in these selected child care activities. We then use these models to derive predicted means and probabilities of doing various types of child care. The predicted means allow us to compare the amount of time fathers (and mothers) spend in child care in couples with different levels of maternal employment and economic contribution: couples in which (1) the wife is not employed and earns 0% of the couple's earnings, (2) the wife is employed and earns between 1% and 39% of the couple's earnings, (3) the wife earns between 40% and 60% of the couple's earnings, (4) the wife earns between 61% and 99% of the couple's earnings, and (5) the wife is the sole earner, bringing in 100% of the couple's earnings, and the father is not employed. We also use these predicted means and probabilities to calculate the ratio of (average) fathers' to (average) mothers' child care time for these various groups of couples.

## RESULTS

Table 1 shows the overall means of parents' hours per week spent with children as well as the (unadjusted) percentage of parents who engage in three types of child care: physical, recreational, and managerial care. As expected, mothers spend much more time with children than fathers do (49.8 hours/week compared with 31.4 hours/week), especially solo care, or care without the assistance of other adults or caregivers (30.2 hours/ week for mothers compared with 10.7 hours/week for fathers). Fathers do about half as much primary child care as mothers do, and there is uneven participation in the types of child care that mothers and fathers do. The type of child care that both mothers and fathers are most likely to do on the diary day is physical or routine care of children (38% of fathers and 71% of mothers engage in this type of care). However, the type of care that mothers and fathers participate in most equally is recreational or "fun" child care, though mothers are still more likely to do this type of care than fathers (34% of mothers do any recreational care compared with 24% of fathers). About 28% of fathers and 50% of mothers report doing any managerial care on their diary day.

Table 2 details demographic differences between married mothers and fathers in the sample. A little over 60% of mothers in the sample are employed compared with the vast majority of fathers (94%–95%). Mothers average 22–23 hours of paid work per week compared with 42–44 hours for fathers, most of whom work a full-time schedule. Wives contribute 27%–29% of the couple's earnings, on average. Parents in the sample have an average of two children, tend to be in their mid-30s (36–38 years old), are well educated (a majority have at least some college or more), and are predominantly white (64%).

Table 3 shows OLS regression results for five nested models estimating fathers' and mothers' total time with children, solo time with children, and primary child care time. As explained in our discussion of our analytic strategy, these stepwise models help us to understand the individual and collective associations of husbands' and wives' employment characteristics with time with children. Given our interest in the associations between husbands' and wives' employment and earnings characteristics and their time with children, we show only an abbreviated panel of coefficients. All models include controls for age, education, age of youngest child, number of children, race/ethnicity, weekend diary, summer diary, and year; the full regression results are shown in appendix tables A1 and A2.

With regard to fathers, all types of time with children are associated with fathers' labor force participation: fathers do less child care when employed and when they work more hours. Above and beyond a father's own labor force characteristics, his wife's labor force involvement is associated with the types of care in which we might expect it to make a difference: a father's involvement in solo care of his children and his overall minutes in primary child care activities. Fathers' solo time with children increases by more than two hours a week when a wife is employed (contrasted with fathers in families in which the mother is not employed), and the estimates for primary child care suggest more father care with higher earnings—both relative and absolute—contributions by the mother, though only relative earnings remain statistically significant in the full model (model 5). These findings support hypothesis 1 and the expectation that fathers take more responsibility—do more solo care—for children when mothers are employed.

As we observed with fathers, mothers' employment status and hours are negatively associated with the time mothers spend with their children. In addition, the more a mother earns relative to her husband, the less overall time she spends with her children and the less solo care she does. The coefficient for the relative earnings variable is also negative in the primary child care regression, though it is not statistically significant in the full model (model 5), which includes the employment, hours, and absolute earnings of both spouses.

In contrast to the negative association with relative earnings, a wife's absolute earnings are positively associated with her overall time with children and her solo time with her children, other things equal. That is, when we control for paid work hours, those mothers who earn more spend slightly more time with children than mothers with lower earnings. This is consistent with the notion that time with children is not necessarily something that mothers wish to reduce and that perhaps they can realize the ideal of spending more time with children as their earnings capacity increases.

Table 4 shows the odds ratios, derived from logistic regression models predicting parents' likelihood of doing three types of child care activities on the diary day: physical, recreational, and managerial care. A father's longer work hours are associated with a lower likelihood of doing these types of child care on his diary day. His wife's work hours are positively associated with his likelihood of doing managerial child care on his diary day but negatively associated with the likelihood that he plays with his children (and very marginally negatively associated with physical care of children). These negative associations

were not anticipated, but the negative association with recreational care is consistent with the notion that dual-earner households may be time stretched, limiting time for fun activities.

A wife's absolute and relative earnings are positively associated with a father's involvement in these types of child care in models that include only a wife's labor force characteristics. However, in the full model 5, the only strong association is that the higher her relative earnings, the greater the likelihood that the father participates in the physical care of their children on the diary day. With respect to hypothesis 2, then, results are mixed. On the one hand, where we expected no association between maternal employment and fathers' time with children—recreational activities—we actually find a slight negative association between wives' employment hours and fathers' odds of engaging in recreational activities with their children. On the other hand, we find the expected greater father involvement in the less appealing activities of child care—routine physical care—as mothers contribute relatively more to the income of the family. Finally, we do not find an association between wives' earnings and fathers' managerial care, though wives' employment hours are associated with an increased likelihood that a father will do managerial child care activities on his diary day.

With regard to a mother's involvement in the various types of child care, she tends to be less likely to do child care on her diary day as her paid work hours increase. When her husband works more hours and earns more, there is often a positive association with the likelihood that she does these types of child care. This is consistent with the notion that his long work hours or higher earnings either pressure her or enable her to devote more time to child care activities. Her higher relative earnings are negatively associated with her likelihood of doing these types of child care (model 3), but these associations largely disappear in the full model that includes the employment, hours, and absolute earnings of both spouses (model 5).

To facilitate the examination of hypothesis 3, the relative contribution of mothers and fathers to child care, we use the regression results in tables 3 and 4 to derive predicted means for mothers and fathers in households with married parents in five different employment/earnings arrangements: (1) husband sole earner (i.e., contributing 100% of the couple's earnings) with a wife who is not employed, (2) dual-earner families in which wives are secondary earners (i.e., the wife earns less than 40% of the couple's earnings), (3) dual-earner families in which husbands and wives contribute roughly equally to the couple's joint earnings (i.e., the wife's contribution is between 40% and 60% of total earnings), (4) dual-earner families in which husbands are secondary earners (i.e., the wife earns more than 60% of the couple's earnings), and (5) wife sole earners (i.e., contributing 100% of the couple's earnings) with a husband who is not employed. The top panel of table 5 shows the adjusted average hours per week that parents and children spend together and the ratios of these predicted means for fathers to those for mothers, and the bottom panel of table 5 shows the predicted probabilities that fathers and mothers engage in specific child care activities including physical, recreational, and managerial care.

## Fathers

Fathers average around 30–32 waking hours per week with their children, and there is little variation in this overall estimate by maternal employment status, except in the extreme case

in which the wife earns 100% of family income (where fathers spend 37 hours per week with their children). Employed fathers with employed wives average 11–15 solo hours, or three to six more weekly hours alone with their children (without a spouse present) than fathers with nonemployed wives (husband earns 100%), who average eight hours; this difference between those with an employed and nonemployed spouse is statistically significant. Fathers in mother sole-breadwinner families spend the most solo time with their children at 18 weekly hours.

Variation in fathers' time spent in primary child care activities is minimal except when their wives outearn them; these fathers do about two to three more hours than other fathers. As expected, however, there is greater variation by maternal employment and economic contribution when we take a closer examination at the types of child care activities that fathers do with their children. The care activity that seems most responsive to wives' employment and earning status is the routine physical care of children, though the probability that fathers will engage in recreational activities with children also increases marginally as wives contribute proportionally more to the family's earnings. At the same time, we expected differences in managerial child care activities between fathers with employed wives and those with nonemployed wives, but we observe little variation except for the unexpected finding that nonemployed fathers may be less likely (.22 probability) to engage in managerial child care activities than employed fathers (.26–.31 probability). Assessing whether these differences are large or small requires that we also pay attention to how much care mothers are providing in these households.

## Mothers

All groups of mothers do more child care and spend more time with children than all groups of fathers, including fathers in wife sole-earner families. That is, even in families in which mothers are the sole breadwinners, mothers still do more child care (16.5 hours/week) than the non-employed husbands in such families (who spend about 10.4 hours/week doing child care activities). Further, the overall time that sole-breadwinning mothers spend with children often comes close to the levels of stay-at-home mothers (50 hours a week total time with children compared with 53.4 hours, respectively). There is very little variation across maternal employment and earning status in the types of child care activities that mothers do. Although wife sole earners are slightly less likely to engage in routine physical care (71% likely) than other mothers (74%–77% likely), levels are very similar for all types of child care activities. In fact, both stay-at-home wives and wife sole earners are equally likely to engage in recreational activities with children on the diary day (32% likely) and have similar probabilities of doing managerial care (a .49 probability compared with a .47 probability, respectively).

## Fathers' Child Care Time Relative to Mothers' Child Care Time

The far right panel of table 5 shows the ratio of fathers' to mothers' child care time. It is important to keep in mind that “fathers” and “mothers” are not married to each other in this analysis; we calculate the ratios from the averages for the independent samples of fathers and mothers as indicated in the first two panels of table 5. Nevertheless, the ratios show the

general pattern of married fathers' time compared to married mothers' time in child care in the United States.

The third panel in table 5 shows that the ratios are higher the more a mother earns. We graph three of the father-mother ratios in figure 1: the ratio of total time with children, solo time with children, and primary child care. In relative terms, fathers with employed wives do substantially more child care and spend more time with their children than fathers with nonemployed wives. These ratios grow closer to parity the more the wife contributes to the couple's earnings, with the most equal caregiving arrangement being that of wife sole breadwinner (as opposed to couples whose earnings contributions are roughly equal; that is the arrangement, all else equal and gender aside, that theoretically should be the most equal if parenting ideologies did not matter). No earnings arrangement, however, is at parity. The most dramatic difference by maternal economic contribution in figure 1 is in the area of solo time with children, with ratios of fathers' to mothers' time of 0.25 for families with stay-at-home mothers (husband earns 100%), 0.43 for equal earners (wife earns > 40% and < 60%), 0.54 for mother primary earners (wife earns > 60% and < 100%), and 0.59 for mother sole earners (wife earns 100%).

## CONCLUSIONS

In this article, we discuss the ways in which men's involvement in child care—and the factors that motivate such involvement—may differ from housework, given that much of the theoretical and empirical research on men's nonmarket work has focused on housework. We posit that past findings showing a weak relationship between fathers' involvement in child care and mothers' employment are not so much wrong as incomplete. We replicate past findings to show that fathers are similar in the total amount of time they spend with their children regardless of the labor market involvement of their spouse. We find positive associations between mothers' labor force participation and fathers' participation in caregiving, however, when we expand our conceptualization of father involvement to include measures that capture taking greater responsibility for child rearing.

We summarize our major findings in table 6. Fathers with employed wives more often care for children without the assistance of another care-giver—namely, the child's mother—than fathers with nonemployed wives. The domain in which fathers have often been absent in the past—doing the actual physical care of children—is positively associated with a wife's relative earnings, suggesting that employed mothers may negotiate greater involvement from fathers as their earnings rise relative to those of their husbands. There is also greater father involvement in managerial child care as wives work more hours.

We found no association between maternal employment and earnings and a father's total time with his children. The vast majority of fathers are employed (95%), and they work full-time hours regardless of the employment status of their wife. Hence, employed fathers' available hours to be in the home and with children are similarly constrained whether or not their wife is employed. This may help to explain why findings have been mixed on whether father involvement is correlated with maternal employment and earnings: their overall time

is not correlated with a wife's labor force characteristics, but time they spend taking responsibility for child rearing is.

Finally, we expected to find no correlation between maternal employment and a father's likelihood of playing with children or doing the fun types of caregiving; instead we found a slight negative association between maternal employment and father's engagement in these types of activities on his diary day. This unexpected finding may imply that time pressures in dual-earner families erode opportunities for leisure and shared parent-child time in recreational activities. It is consistent with parental reports of time pressures and feeling too little time with one's children that have been reported in other studies (Jacobs and Gerson 2004; Milkie et al. 2004).

Although we identify areas in which fathers are more involved in the care of their children when wives are in the labor force, there is also a way in which fathers' time allocation remains impervious to family demands. Unlike mothers, most fathers do not alter their labor force participation greatly to provide child care. No matter how young the 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 CPS (except, of course, for the very small group of fathers who are not employed and perhaps also those who are secondary earners, another small group of fathers). As a consequence, mothers' time in child care always exceeds fathers' time, although the gender gap in family care is much narrower in dual-earner families in which mothers work and earn more than in other families.

The ratios of fathers' to mothers' time—even though from independent samples of fathers and mothers—offer insight into gender equality in child rearing. The relative contributions of fathers and mothers tend to look much more equal in households in which both parents are employed, and this is a function of three factors: children are older, on average, and more often in the care of nonparents; fathers are doing more care than fathers with a stay-at-home wife; and mothers are doing slightly less care than stay-at-home mothers. The ratios of fathers' time to mothers' time are highest in the domain of recreational care of children, underscoring the highly stereotypic notion that fathers are most likely to become involved in the fun aspects of child care. Indeed, the ratio for recreational child care among families in which fathers are secondary earners is almost at unity.

At the same time, the ratios also defy common stereotypes that fathers do not take responsibility for children. The ratios for solo time with children as well as primary child care—though not as high as the ratios for recreational child care—are notably higher for dual-earner families in which fathers are secondary earners when compared with other groups. Ratios of father care to mother care increase steadily as mothers contribute more earnings. Still, the ideology of mother as primary caregiver appears to be salient across all groups of parents as we do not observe gender parity in caring for children among any group of parents, including our small sample of nonemployed fathers. Nonemployed fathers may also be a select group of fathers with serious labor market difficulties or disabilities that limit their ability to assume responsibility for children or be actively involved in child care.

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. Our goal in this study has been to use the best available evidence, time use data, to demonstrate that past findings of no difference in fathers' child care by maternal employment are not sufficiently detailed 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 and when they are responsive. We believe that this broader investigation of fathers' participation in child care 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 employed mothers who earn a greater share of family earnings, but change is gradual at best. Fathers do take over more child care responsibilities when their wives contribute more to family earnings, but fathers also remain far less likely than mothers to either drop out of the labor force entirely or make any alteration in the number of hours they are employed in the face of increased child care demands. Future analyses will need to consider the complex web of interactions among mothers' decisions about remaining in or dropping out of the labor force and fathers' willingness to be involved in child rearing in order to accurately assess whether the trend toward greater gender equality in the home and in the workplace is continuing or whether change is slowing and will remain far short of complete gender similarity.

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## Appendix

**TABLE A1**

OLS Regression Coefficients for Parents' Time with Children (Hours/Week)

	Fathers			Mothers		
	Total Time with Children	Solo Time	Primary Child Care	Total Time with Children	Solo Time	Primary Child Care
Intercept	36.820***	7.522***	6.468***	65.612***	35.152***	12.956***
Wife's employment (1/0)	-.520*	2.282*	-.439	-3.236*	-3.741***	-1.488 <sup>+</sup>
Wife's weekly hours	.018	.032	.007	-.348***	-.292***	-.128***
Wife's weekly earnings	.001	.000	.000	.003**	.002*	.001
Husband's employment (1/0)	-4.300*	-4.244*	-.672	-11.971***	-8.689***	-2.648 <sup>+</sup>
Husband's weekly hours	-.202***	-.100***	-.087***	.075*	.167***	.043*
Husband's weekly earnings	.000	.001	.001*	-.001 <sup>+</sup>	.000	.001***
Wife's portion of couple's earnings	2.513 <sup>+</sup>	4.227 <sup>+</sup>	3.837*	-15.659***	-9.362***	-2.659
Child ages 0–2	5.556***	2.158***	5.539***	13.081***	10.392***	11.234***
Child ages 3–5	2.620***	2.764***	3.139***	5.060***	5.373***	4.802***
Number of children	3.310***	2.069***	.788***	5.201***	4.512***	1.822***
Parent's age	-.279	.006	-.004	-.425***	-.141***	.005
Less than high school education	-1.775	-.685	-2.400***	-2.382*	-2.263*	-1.922***
Some college	2.809***	2.270***	1.135**	.421	.721	.921*
College graduate	3.557***	2.809***	1.979***	2.443**	1.171	3.537***
Postgraduate education	5.897***	3.152***	2.944***	4.835***	1.704	4.501***
Hispanic	-1.746*	-1.440*	-1.737***	.787	-1.414 <sup>+</sup>	-3.343***
Non-Hispanic black	-8.690**	-1.884**	-2.664***	-5.011***	-2.810***	-2.368***
Non-Hispanic other	-.687	-1.353	-1.423*	1.395	-.479	.666
Season of diary is summer	.937	.141	-1.443***	2.076**	1.334*	-2.815***

	Fathers			Mothers		
	Total Time with Children	Solo Time	Primary Child Care	Total Time with Children	Solo Time	Primary Child Care
Day of week is weekend	24.868***	3.609***	1.035***	13.906***	-6.361***	-4.933***
Year of diary:						
2004	.669	.669	-.394	-1.293	.464	.077
2005	-.590	-.590	-.423	.701	.909	-.536
2006	.219	.219	-.552	.790	.429	-.197
2007	-.450	-.450	-.013	.152	-1.369 <sup>+</sup>	-.216
N	7,376	7,376	7,376	7,376	7,376	7,376

Note.—Figures come from the 2003–7 ATUS. Indicator variables for imputed income and parental education were also included in the models (coefficients not shown).

<sup>+</sup>  $P < .10$ .

\*  $P < .05$ .

\*\*  $P < .01$ .

\*\*\*  $P < .001$ .

**TABLE A2**

Odds Ratios for Parents' Engagement in Selected Child Care Activities

	Fathers			Mothers		
	Physical Child Care	Recreational Child Care	Managerial Child Care	Physical Child Care	Recreational Child Care	Managerial Child Care
Intercept						
Wife's employment (1/0)	.994	1.179	1.063	.970	.893	1.113
Wife's weekly hours	.993 <sup>+</sup>	.987***	1.014***	.985***	.982***	.994
Wife's weekly earnings	1.000	1.000 <sup>+</sup>	1.000	1.000	1.000 <sup>+</sup>	1.000
Husband's employment (1/0)	2.382***	.850	1.383	1.104	1.004	1.581*
Husband's weekly hours	.983***	.990**	.984***	1.000	1.007*	1.005 <sup>+</sup>
Husband's weekly earnings	1.000***	1.000	1.000	1.000	1.000***	1.000***
Wife's portion of couple's earnings	4.191***	1.389	1.076	.848	1.368	1.685 <sup>+</sup>
Child ages 0–2	4.003***	2.772***	.848*	4.838***	3.084***	.802**
Child ages 3–5	2.533***	2.004***	1.108	2.971***	1.790***	1.134 <sup>+</sup>
Number of children	1.259***	1.016	1.267***	1.217***	.974	1.316***
Parent's age	.981***	.990*	.999	.962***	.993	1.006
Less than high school education	.583***	.680**	.696**	.745**	.735**	.780*
Some college	1.771***	1.263**	1.393***	1.398***	.960	1.063
College graduate	2.410***	1.637***	1.720***	1.889***	1.307***	1.268**
Postgraduate education	2.980***	1.597***	2.147***	2.430***	1.031	1.179
Hispanic	.420***	.708***	1.116	.44g***	.479***	.853*
Non-Hispanic black	.619***	.516***	.886	.663***	.416***	.681***
Non-Hispanic other	.625***	.942	.861	.540***	1.004	.726**
Season of diary is summer	.687***	.988	.74g***	.586***	.961	.577***

	Fathers			Mothers		
	Physical Child Care	Recreational Child Care	Managerial Child Care	Physical Child Care	Recreational Child Care	Managerial Child Care
Day of week is weekend	.773***	.975	.509***	.439***	.689***	.273***
Year of diary:						
2004	1.014	.880	.905	.956	1.024	1.067
2005	1.060	.872	1.024	.917	1.033	1.109
2006	1.044	.961	.912	.889	1.093	.997
2007	1.247**	1.096	.932	.955	1.008	1.090
<i>N</i>	7,376	7,376	7,376	7,376	7,376	7,376

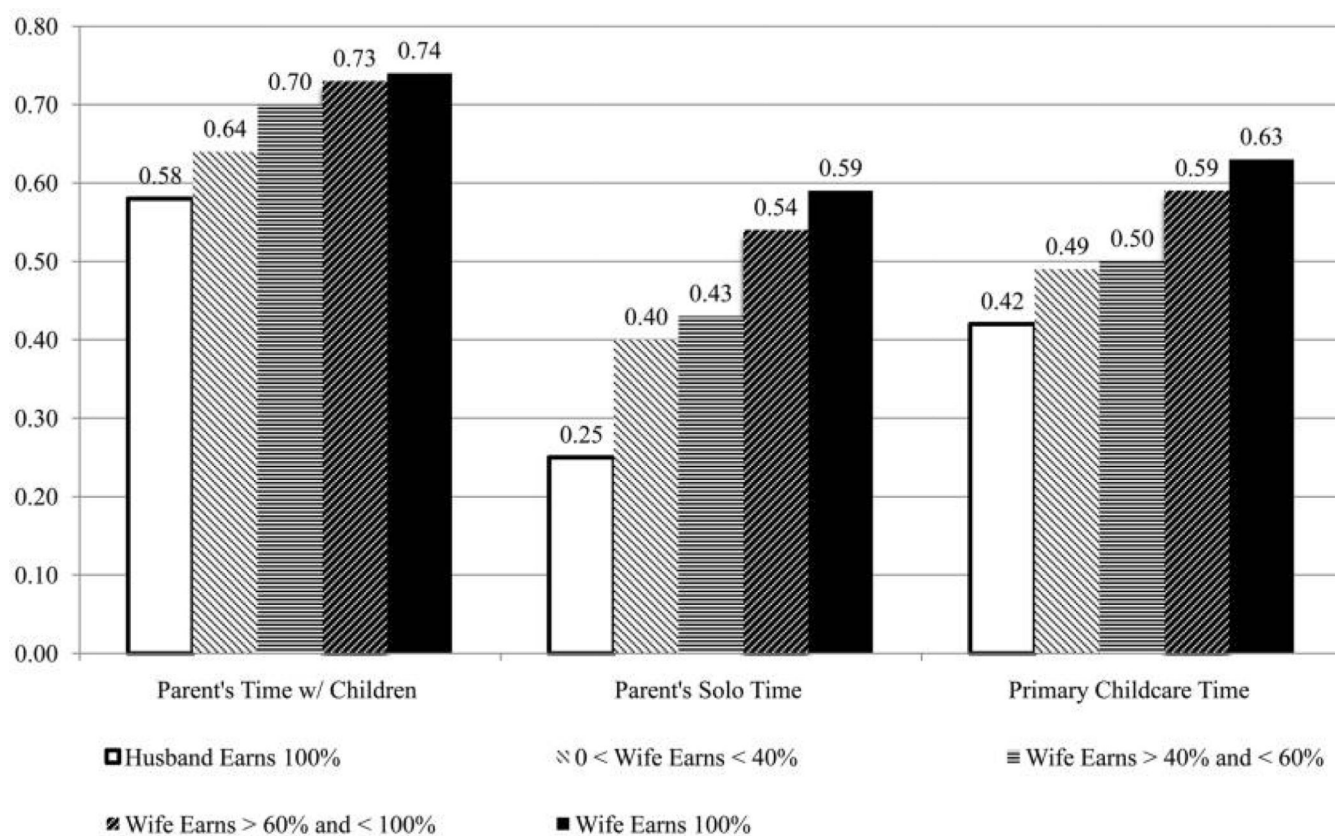
Note.—Figures come from the 2003–7 ATUS. Indicator variables for imputed income and parental education were also included in the models (coefficients not shown).

<sup>+</sup>  $P < .10$ .

<sup>\*</sup>  $P < .05$ .

<sup>\*\*</sup>  $P < .01$ .

<sup>\*\*\*</sup>  $P < .001$ .



**Fig. 1.**  
Fathers: mothers ratios of child care and total time with children by relative earnings, 2003–7.

**TABLE 1****Unadjusted Parent-Child Time (Hours/Week)**

	<b>Fathers</b>	<b>Mothers</b>	<b>Ratio Fathers:Mothers</b>
Average time with children	31.4	49.8	.63
Average solo time with children	10.7	30.2	.35
Average primary child care time	7.7	16.2	.47
Types of child care time:			
% who do any physical care	38	71	.53
% who do any recreational care	24	34	.69
% who do any managerial care	28	50	.56
<i>N</i>	6,572	7,376	

Note.—Figures come from authors' calculations using the 2003–7 ATUS.

**TABLE 2**

Means of Covariates, 2003–7 ATUS

	Fathers	Mothers
Wife's employment status	.61	.63
Wife's weekly employment hours	22.27	22.71
Wife's weekly earnings	391.97	409.53
Husband's employment status	.95	.94
Husband's weekly employment hours	43.74	41.93
Husband's weekly earnings	964.18	922.34
Wife's portion of couple's earnings	.27	.29
Child age 0–2	.37	.38
Child age 3–5	.24	.22
Child age 6–12	.39	.40
Number of children	1.98	1.97
Parent's age	37.99	35.94
Less than high school education	.13	.12
High school graduate	.28	.26
Some college	.24	.26
College graduate	.22	.25
Postgraduate education	.12	.11
Hispanic	.21	.20
Non-Hispanic black	.09	.07
Non-Hispanic other	.06	.06
Non-Hispanic white	.64	.67
Season of diary is summer	.24	.25
Day of week is weekend	.29	.29
Year of diary:		
2003	.28	.28
2004	.19	.18
2005	.17	.19
2006	.19	.19
2007	.17	.17
<i>N</i>	6,572	7,376

Note.—Figures come from authors' calculations using the 2003–7 ATUS.

**TABLE 3**

OLS Regression Coefficients of Time with Children (Hours/Week) by Couple's Employment and Economic Characteristics

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5
	Fathers' Total Time with Children					Mothers' Total Time with Children				
Wife's employment (1/0)	.951			-.089	-.520				-5.447***	-3.236*
Wife's weekly hours	.041			.025	.018				-.412***	-.348**
Wife's weekly earnings	.001			.001	.001				.000	.003**
Husband's employment (1/0)		-6.021**		-5.506**	-4.300+		-.678		-4.561*	-11.971***
Husband's weekly hours		-.206***		-.204***	-.202***		.114***		.084**	.075*
Husband's weekly earnings		-.001		-.001	.000		.003***		.000	-.001 +
Wife's portion of earnings			11.294***		2.513			-28.959***		-6.838**
Intercept	21.560***	40.111***	20.069***	38.361***	36.820***	55.808***	33.554***	48.530***	56.551***	65.612***
R <sup>2</sup>	.215	.235	.224	.236	.236	.327	.227	.292	.328	.330
	Fathers' Solo Time with Children					Mothers' Solo Time with Children				
Wife's employment (1/0)	3.563***			3.007***	2.282*				-4.974***	-3.741**
Wife's weekly hours	.053*			.043+	.032				-.331***	-.292***
Wife's weekly earnings	.001			.000	.000				.000	.002*
Husband's employment (1/0)		-7.572***		-6.272***	-4.244*		-1.057		-4.259*	-8.689***
Husband's weekly hours		-.108***		-.104***	-.100***		.197***		.172***	.167***
Husband's weekly earnings		.000		.000	.001		.003***		.000	.000
Wife's portion of earnings			12.713***		4.227+			-26.542***		-9.362**
Intercept	-1.637	16.010***	-1.241	10.113***	7.522***	33.685***	10.550***	27.879***	29.735***	35.152***
R <sup>2</sup>	.066	.072	.082	.091	.091	.232	.149	.209	.237	.238
	Fathers' Primary Child Care Time with Children					Mothers' Primary Child Care Time with Children				
Wife's employment (1/0)	.631			.220	-.439				-1.839*	-1.488+
Wife's weekly hours	.020			.018	.007				-.139***	-.128***
Wife's weekly earnings	.001**			.001*	.000				.000	.001

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5
Husband's employment (1/0)		−3.014***		−2.512**	−.672		−.104		−1.390	−2.648+
Husband's weekly hours		−.091***		−.090***	−.087***		.054**		.044*	.043*
Husband's weekly earnings		.000		.000	.001*		.002***		.001***	.001**
Wife's portion of earnings			6.129***		3.837*			−10.943***		−2.659
Intercept	1.790+	10.610***	1.248	8.819***	6.468***	12.777***	3.743**	10.374***	11.418***	12.956***
R <sup>2</sup>	.090	.106	.102	.111	.112	.249	.213	.238	.252	.252

Note.—All models also include controls for age, education, age of youngest child, number of children, race/ethnicity, weekend diary, summer diary, and year. r. Full model 5 with covariates is shown in app. table A1.

+  $P < .10$ .

\*  $P < .05$ .

\*\*  $P < .01$ .

\*\*\*  $P < .001$ .

**TABLE 4**  
Odds Ratios for Engaging in Selected Child Care Activities by Couple Economic Characteristics

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5
	Fathers' Odds Ratios for Physical Care					Mothers' Odds Ratios for Physical Care				
Wife's employment (1/0)	1.309*			1.247+	.994	.940			.948	.970
Wife's weekly hours	.997			.997	.993+	.983***			.984***	.985***
Wife's weekly earnings	1.000**			1.000**	1.000	1.000			1.000	1.000
Husband's employment (1/0)		1.132		1.206	2.382***		1.353		1.190	1.104
Husband's weekly hours		.982***		.982***	.983***		1.001		1.000	1.000
Husband's weekly earnings		1.000*		1.000*	1.000***		1.000**		1.000	1.000
Wife's portion of earnings			2.255***		4.191***			.361***		.848
—2 log likelihood	7,852.716	7,826.463	7,828.591	7,795.828	7,777.463	6,832.116	6,920.474	6,855.320	6,824.765	6,824.541
	Fathers' Odds Ratios for Recreational Care					Mothers' Odds Ratios for Recreational Care				
Wife's employment (1/0)	1.287+			1.244	1.179	.906			.927	.893
Wife's weekly hours	.990**			.988**	.987***	.981***			.983***	.982***
Wife's weekly earnings	1.000**			1.000**	1.000+	1.000**			1.000**	1.000+
Husband's employment (1/0)		.758		.727+	.850		.972		.864	1.004
Husband's weekly hours		.990***		.990**	.990**		1.007*		1.007*	1.007*
Husband's weekly earnings		1.000		1.000	1.000		1.000***		1.000***	1.000***
Wife's portion of earnings			1.551***		1.389			.355***		1.368
—2 log likelihood	7,174.439	7,132.755	7,168.381	7,119.064	7,118.224	8,092.052	8,158.862	8,126.194	8,058.168	8,057.297
	Fathers' Odds Ratios for Managerial Care					Mothers' Odds Ratios for Managerial Care				
Wife's employment (1/0)	1.144			1.076	1.063	1.162			1.192	1.113
Wife's weekly hours	1.014***			1.014***	1.014***	.995+			.997	.994
Wife's weekly earnings	1.000			1.000	1.000	1.000			1.000	1.000
Husband's employment (1/0)		1.087		1.337	1.383		1.244		1.238	1.581*
Husband's weekly hours		.985***		.984***	.984***		1.004		1.004	1.005+

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5
Husband's weekly earnings		1,000 <sup>+</sup>		1,000	1,000		1,000 <sup>**</sup>		1,000 <sup>**</sup>	1,000 <sup>***</sup>
Wife's portion of earnings			3,378 <sup>***</sup>		1,076			708 <sup>***</sup>		1,685 <sup>+</sup>
—2 log likelihood	7,825.387	7,919.896	7,839.820	7,781.494	7,781.445	8,842.155	8,803.502	8,832.716	8,800.991	8,798.093

Note.—All models also include controls for age, education, age of youngest child, number of children, race/ethnicity, weekend diary, summer diary, and year. Full model 5 with covariates is shown in app. table A2.

<sup>+</sup>  $P < .10$ .  
<sup>\*</sup>  $P < .05$ .  
<sup>\*\*</sup>  $P < .01$ .  
<sup>\*\*\*</sup>  $P < .001$ .

TABLE 5

Predicted Mean Parent-Child Time (Hours/Week) and Predicted Probabilities of Fathers and Mothers Engaging in Specific Child Care Activities by Wife's Employment Status and Relative Earnings

	Fathers' Mean Child Care Time				Mothers' Mean Child Care Time				Ratio Fathers':Mothers'			
	Total Time with Children	Solo Time with Children	Primary Child Care	Primary Child Care	Total Time with Children	Solo Time with Children	Primary Child Care	Primary Child Care	Total Time with Children	Solo Time with Children	Physical	Managerial
Wife not employed	30.9	8.3	7.3	7.3	53.4	33.6	17.3	17.3	.58	.25		.42
Wife earns 1%–39%	30.9	11.4	7.6	7.6	47.8	28.5	15.4	15.4	.64	.40		.49
Wife 40%–59%	31.3	11.1	7.5	7.5	45.1	25.9	15.0	15.0	.70	.43		.50
Wife 60%–99%	32.5	14.8	9.0	9.0	44.7	27.4	15.3	15.3	.73	.54		.59
Husband not employed	37.0	18.3	10.4	10.4	50.0	31.0	16.5	16.5	.74	.59		.63

	Fathers' Predicted Probabilities				Mothers' Predicted Probabilities				Ratio Fathers':Mothers'			
	Physical	Recreational	Managerial	Managerial	Physical	Recreational	Managerial	Managerial	Physical	Recreational	Physical	Managerial
Wife not employed	.25	.19	.27	.27	.77	.32	.49	.49	.33	.61		.55
Wife earns 1%–39%	.30	.23	.28	.28	.76	.30	.52	.52	.40	.77		.54
Wife 40%–59%	.35	.25	.26	.26	.74	.28	.53	.53	.47	.88		.49
Wife 60%–99%	.46	.26	.31	.31	.76	.30	.50	.50	.60	.87		.62
Husband not employed	.32	.31	.22	.22	.71	.32	.47	.47	.45	.98		.47

Note.—Predicted means are based on OLS regression models that control for parental age, number of children in the household, the presence of children outside the household, race, family earnings, parental employment hours, parental education, day, and season of the time diary.

**TABLE 6**

Summary of Hypotheses and Associations between Fathers' Time with Children and Wife's Labor Market Characteristics

Types of Care	Results
Positive association with wife's economic characteristics expected:	
Solo care	Positive (+) association with wife's employment status
Physical care	Positive (+) association with wife's relative earnings
Managerial care	Positive (+) association with wife's employment hours
No association with wife's economic characteristics expected:	
Total care	No association
Recreational care	Negative (–) association with wife's employment hours