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Family Flexibility in Response to Economic Conditions:

Fathers' Involvement in Child Care Tasks

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ABSTRACT

Prior research indicates that, although most parents believe that fathers and mothers should be equally involved in daily child care, fathers still spend less time on these tasks than mothers and mothers continue to do most of the "dirty labor" required by infants and preschoolers. At the same time, fathers' involvement in child care appears sensitive to macro-economic conditions, at least during their wives work hours. In this paper, we use data from the National Survey of Family Growth, fielded from 2006 to 2010, to explore the effects of the 2007 – 2009 economic recession on married and cohabiting fathers' involvement in the *day-to-day* tasks of physical (e.g., bathing) and interactive (e.g., reading) care. Results suggest that the recession's impact depended on type of care. Fathers' participation in play decreased at the recession's onset in 2007 but had rebounded by 2009. Participation in physical care, however, increased only as the economy began to recover, in 2009 and 2010. The probability of participation in all tasks was higher for men who were not employed but whose wives were, and lower for men who were employed but whose wives were not. We found no evidence this employment effect was moderated by the recession.

Family Flexibility in Response to Economic Conditions:
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Cultural images of fatherhood have changed in recent decades. The "distant breadwinner" described by Pleck (1987) has given way to the engaged father—an emotionally accessible co-parent who is an active participant in the day-to-day tasks of childrearing. Most parents believe that fathers and mothers should be equally involved in the various dimensions of parenting, including emotional support, discipline, supervision, play, and physical care (Milkie et al., 2002). Nevertheless, the engaged father remains an ideal rather than the reality in two-parent families in the United States. Although the amount of time fathers spend with their children has increased (Bianchi, Robinson & Milkie, 2006; Gray & Anderson 2010), fathers still spend less time performing child care tasks than mothers, even when their wives are employed (Casper & Bianchi, 2002; Bianchi et al., 2006). Moreover, mothers continue to do most of the physical care work—from diapering to bathing to feeding—required by babies and toddlers, while fathers perform more interactive tasks, such as play and reading (Combs-Orme & Renkert, 2009; Gray & Anderson, 2010; Schoppe-Sullivan et al. 2012).

If most mothers and fathers support the engaged father ideal, why is it that fathers continue to do less of the "dirty work" involved in child care? One possibility is that parents' ability to divide the labor of child care equitably may be constrained by external factors, including limited parental leave policies, inflexible work schedules, and the difficulty of finding affordable non-parental care. Such constraints, in conjunction with long-standing social norms about parenting may lead couples to rely more heavily on one

parent—most often the father—as the primary breadwinner and the other—most often the mother—as the primary parent (Bureau of Labor Statistics 2013; Correll et al. 2007; Stone 2007).

Just as structural factors can constrain parents' ability to adopt a more equitable division of family labor, so too may macro-level changes provide opportunities for parents to adopt a division of labor that is more consistent with the engaged father ideal. The often-cited uptick in married couples' reliance on fathers for childcare during the 1991 economic recession (Casper & O'Connell, 1998) provides a cogent example. Although this uptick was temporary, it suggests the ability of structural "shocks" to induce change in the still-gendered division of family labor.

In this paper, we explore the effects of a recent economic shock—the "Great Recession"—on fathers' involvement in the day-to-day tasks of child care. Motivating this exploration are the remarkable changes in family formation and family life that have occurred since the 1991 recession as well as substantial changes in the United States' economy. Unlike Casper and O'Connell (1998), who addressed fathers as care providers while their wives worked for pay, we examine fathers' involvement on a daily basis. Specifically, we ask whether fathers' participation in the daily tasks involved in caring for their preschool-aged children increased in response to the recession. Although we are most interested in fathers' involvement in activities such as bathing, dressing, and feeding, we also consider whether their participation in less onerous tasks such as reading and playing also changed.

BACKGROUND

Parenting and gender

The well-documented gap in women's and men's allocation of time to paid work and to unpaid domestic labor has narrowed in recent years. This narrowing reflects, in part, a decrease in the time women spend in household labor as their time spent in paid labor has increased (Bianchi et al., 2000; Bianchi et al., 2006; Casper & Bianchi, 2002). The shrinking gender gap in domestic labor time also reflects an increase in the time that men spend in domestic work, an increase due almost entirely to men's greater participation in parenting tasks (Bianchi et al. 2000; Bianchi et al., 2006; Gray & Anderson, 2010).

Despite this increase, fathers still spend less time with their children than do mothers, even when mothers are employed (Bianchi et al., 2006; Casper & Bianchi 2002; Sayer et al., 2004). Moreover, gender differences in parenting tasks and parenting schedules persist. Fathers parent more on weekends than weekdays, and their parenting tasks more often are interactive and recreational; mothers, however, spend more time alone with their children and they more often perform the daily tasks involved in physical care as well as managing their children's schedules and activities (Combs-Orme & Renkert, 2009; Craig, 2006; Gray &Anderson, 2010; Yeung, Sandberg, Davis-Kean, & Hofferth, 2001).

What explains the persistence of gender differences in parenting? One perspective suggests that the narrowing of gender differences in time allocation is part of an on-going process of gender convergence in family roles. This convergence reflects both behavioral changes at an individual-level and a cohort replacement process as younger men with more egalitarian attitudes become fathers and husbands, and older men

with more traditional attitudes and behaviors "age out" of parenting preschoolers (see Sayer, 2005). Other perspectives offer a less optimistic view of recent changes. The increase in women's time in paid labor outweighs substantially the increase in men's time in domestic labor; further, although women's time in domestic work has decreased, the increased time spent by men in household labor has been insufficient to relieve women of their unpaid "second shift" (Coltrane, 2000; Hochschild, 1989). Moreover, as men's time in unpaid labor has increased, so too has their leisure time, with men now spending 30 minutes daily more in leisure activities than women (Sayer, 2005). This emerging "leisure gap" may reflect the intransigence of gender stereotypes: men resist doing "feminine" tasks, particularly if those tasks appear to compromise their roles as economic providers (Bittman et al., 2003).

The roles of supra-individual factors (e.g., gender norms) and structural change (e.g., rise of a "24-7"service-based economy) are implicit in the competing perspectives on gender differences in time allocation. At the same time, researchers' reliance on time diaries and qualitative data engenders a focus on micro-processes, rendering the impact of economic conditions largely invisible. Yet, evidence for this impact exists. As documented in a series of Census publications, from the mid-1960s through the mid-1990s, fathers served as the primary source of care for approximately one of every seven preschool children (Lueck, Orr, & O'Connell, 1982; O'Connell 1993; O'Connell and Bachu 1987; Casper 1996; 1997; Casper, Hawkins, & O'Connell, 1994). This series, based on data from the Survey of Income and Program Participation (SIPP), suggested that more fathers served as child care providers during economic recessions. Multivariate analysis SIPP data from 1988, 1991, and 1993 revealed that fathers' participation in their

children's care increased was higher in 1991—a recession year—than in either non-recession year (Casper & O'Connell, 1998). This analysis also suggested that the recession effect was due not to men's increased availability to provide child care during employment layoffs, but instead reflected wives' increased bargaining power in the home as economic uncertainty amplified their contributions to family income (Casper & O'Connell, 1998).

In the years since the 1990-1991 recession, what families look like and how they form have changed considerably. The prevalence of cohabitation has increased, the relationship between marriage and childbearing has weakened, marital dissolution rates have plateaued but remain high, and women are the primary wage-earners in an increasing share of families (Cherlin, 2010). Over this period, too, the United States' economy has changed, becoming increasing service-based and global, with a growing reliance on contingent workers and employment arrangements that privilege employer flexibility and profits over employees' ability to predict work schedules or income (Fligstein & Shin, 2004; Presser, 2003). These changes have severed what was once a tight connection between business cycles and employment levels, so that post-recession may recoveries no longer lead to greater economic security for families (BLS, 2012).

The Great Recession

The Great Recession was not only the longest economic contraction in the post-World War II period, it was also the deepest. Employment levels and economic output both fell further over its 18-month span and took longer to recover than in any of the ten recessions since 1946 (BLS, 2012). The recession's official start was December 2007 (NBER, 2008), although problems were apparent months earlier, particularly in the

housing market. Over a 24-month period ending in June 2007, mortgage defaults climbed by 50% while the rate of home foreclosures reached a 28-year high (GAO, 2007). In its report to Congress in October 2007, the GAO attributed the rising default rate not only to problematic lending practices but also to a decline in the rate of home price appreciation and a weak labor market (GAO, 2007).

The national unemployment rate had moved upward over a 30-month period prior to the recession's start, when it was 5.0% nationally and, although unemployment did not reach record levels, the unemployment rate rose more rapidly than in previous recessions (BLS, 2012). Men accounted for more than three-quarters of the net job losses, similar to previous recessions, although they comprised just 51% of non-farm employment. Adults ages 25 to 44—those most likely to have children—were affected later in the recession than older workers, with employment levels for this group holding stable until late 2008, although their average employment losses were greater than among older workers (Engemann & Wall, 2009).

The official end of the Great Recession was June, 2009 (NBER, 2010). Despite the nascent signs of economic expansion, conditions remained bleak for the average family. Unemployment continued to rise through October 2009, peaking at 10%. More than a year later, unemployment rates remained well above 9% and employment levels for both males and females had shown little increase (Federal Reserve, 2014; Hayes & Hartmann, 2011). Wage rates remained well below pre-recession levels and the values of most families' assets, particularly their homes, showed few signs of rebound (Hayes & Hartmann, 2011; Flanagan & Wilson, 2013).

Although asset losses were concentrated disproportionately among families at the lower end of the socioeconomic scale, all families experienced declines in wealth (Engemann & Wall, 2009; Pfeffer, Danziger, & Schoeni, 2013). Not surprisingly, then, feelings of pessimism, stress, and insecurity characterized most Americans, regardless of personal circumstances. The overwhelming majority of respondents to a national survey in November 2010 expressed high levels of pessimism about their ability to either "find good jobs" or "get ahead financially" (Hayes & Hartmann, 2011). A small study of 131 adults from 71 "professional class" families indicates that, in 2009, even persons with stable, middle-income jobs felt financially strained and had reduced spending on non-necessities, including dining out and leisure activities (Zvonkovic et al., 2014).

Fatherhood during economic downturns

The stress resulting from steep economic downturns can strain parenting obligations and dampen the quality of family interactions, particularly for fathers (Conger and Elder 1994). During the Great Depression, for example, paternal unemployment disrupted father-child relationships in many families, despite the increase in time men were at home (Elder 1999; LaRossa and Reitzes 1993). Many fathers withdrew their commitment to family and community obligations in response to the sudden loss of their economic role and corresponding perception of loss in social status (Elder 1999).

Given the changes in family structure and family life, contemporary fathers may not experience the same sustained sense of loss in the face of economic collapse observed by Elder and his colleagues (Conger & Elder, 1994; Elder, 1999). Today's fatherhood norms are complex and sometimes contradictory. Many fathers reject the emotionally distant breadwinner role of the past in favor of a more nurturing and egalitarian role

(Henwood and Procter 2003; Johansson and Klinth 2008). Moreover, because the majority of fathers share with their wives/partners the responsibility for their family's economic support, men may be more willing to take on domestic responsibilities when it is necessary. Thus, there is reason to anticipate a "recession effect" on fathers' participation in daily child care tasks in 2007-2009, similar to that observed by Casper and O'Connell (1998). At the same time, the many differences between the Great Recession and earlier economic contractions raise the possibility that any effect we observe may be different. Because the Great Recession was characterized by the collapse of the housing and financial markets, many families lost not only the income gained from employment, but also their homes and other financial assets, perhaps inducing the kind of alienation and withdrawal suggested by Elder (1999).

Research questions

The primary aim of this paper is to determine whether fathers' participation in the daily care of their preschool children remains responsive to macro-economic shocks. That the time men spend in parenting activities has increased substantially in recent years would seem to leave less latitude for a recession effect. At the same time, that these activities comprise more interactive tasks rather than the more labor-intensive work of providing physical care provides reason to expect a recession effect like that observed by Casper and O'Connell (1998). We consider three related questions:

1. Does men's participation in the daily tasks of caring for their young children demonstrate a recession effect, rising in the peak of the recession and declining as the economy rebounds? Parental flexibility would seem advantageous in a changing economic landscape, particularly one characterized by rapid and

sustained drops in male employment. Also, a temporary peak in daily care may indicate that families respond to economic crises by making short-term adjustments to family roles, as opposed to adapting to new roles that are sustained even as the economy recovers (McKenry 2005).

2. Does a recession effect characterize all forms of men's participation in parenting activities or is it limited to physical care tasks? If women's bargaining power in the home increases in times of rising economic uncertainty, then men's participation in physical care should increase during periods of economic contraction and fall off as the economy recovers. If men's parenting is already concentrated in interactive and leisure activities, their time spent in these types of parenting tasks may increase relatively little; moreover, if men increase their time spent in physical care, the time they spend in interactive tasks may decrease.
3. Does a recession effect depend on men's employment status or that of their wives/partners, as a time allocation perspective would suggest, or does is it operate independently of employment status?

To answer these questions, we consider change in daily parenting behaviors among fathers of co-resident children ages 4 and under. Infants and preschoolers demand intensive parenting. They require around-the-clock supervision and assistance with virtually every aspect of daily life, including feeding, bathing, and diapering or toilet. In short, their need for care cannot be ignored. Moreover, gender differences in parenting tasks and parenting schedules are greatest for infants and preschoolers (Casper & Bianchi, 2002).

DATA

Data come from the National Survey of Family Growth (NSFG), a long-running study designed by the National Center for Health Statistics (NCHS) to produce national estimates of the variables affecting fertility and family formation. Each administration of the NSFG uses an area-based, multistage probability sample that is representative of the civilian, non-institutional population of the United States, ages 15 through 44 and living in households. Male and female respondents are sampled separately. Although questionnaires differ by sex, both the male and female instruments include detailed information on heterosexual marriage and cohabiting relationships and fertility and fertility-related behaviors. Data are collected through face-to-face personal interviews of about one hour in duration. The data are cross-sectional; each respondent is interviewed just once.

In July 2006, the NCHS undertook the first continuously-fielded version of the NSFG, which ran through June 2010. This timing, in conjunction with it cross-sectional design, makes the NSFG 2006-2010 ideal for our purposes; its start predates the Great Recession by about 18 months and interviews continued for an additional 12 months beyond the recession's official end. For this analysis, respondents are treated as members of five annual cross-sections, where each cross-section is generalizable to the population in each calendar year of data collection.

Sample

The analyses presented here rely on information from the male respondents. The full male sample comprises 10,403 men ages 15 to 44; 1,790 of these men had a co-resident biological or adopted child under the age of 5 at the time of the interview. These

men were asked a set of questions about the nature and frequency of their involvement in the daily caretaking of their children. Of these, 1,643 were married or cohabiting with a female partner, meaning that another adult could be performing the daily tasks of caring for the co-resident preschoolers. Excluding men who did not have complete data on the four dependent variables and covariates left us with a sample of 1,595 men.

Dependent Variables

We consider four aspects of paternal involvement: physical care, play, reading to and eating meals with their children. Fathers living with at least one child under age 5 were asked a series of questions regarding their performance of specific child care tasks over the four weeks preceding the survey. The physical care item asked fathers how often they bathed, diapered, or dressed their child(ren) or helped them bathe, dress, or use the toilet. Possible responses were: *(1) not at all, (2) less than once a week, (3) about once a week, (4) several times a week, or (5) every day (at least once a day)*. Fathers used the same set of responses to characterize how often they ate meals with their child(ren); how often they played with their child(ren); and how often they read to their child(ren). We interpreted daily involvement in the work of caring for infants and young children as indicative of highly involved parenting; thus, we recoded these responses to create a dichotomous variable distinguishing between fathers who did the activity every day and those who did not.

Explanatory variables

The two independent variables of primary interest in this analysis are time and the participation of the respondent and his wife/partner in paid employment. Given our interest in the effects of the Great Recession, we considered in preliminary analyses a

binary indicator distinguishing the recession and its onset (2006-2008) from the late and post-recession years (2009-2010), and a three-category measure distinguishing the onset (2006-2007), the primary recession year (2008), and the late and post-recession years (2009-2010). As will become apparent shortly, the effects of time differed across the four outcomes; therefore, we chose a piecewise approach, modeling time as a set of dummy variables indexing interview year. The omitted category in the multivariate models is 2006.

Respondents were asked whether they were currently employed and whether their spouse/partner was currently employed. A set of four dummy indicators was created to represent different parental employment status combinations: respondent currently employed, but wife/partner is not; wife/partner is employed, but respondent is not; both respondent and wife/partner are employed; and both respondent and wife/partner are unemployed. Preliminary analyses revealed that indicators of full versus part-time employment had no impact on father's involvement in child care.

Controls

A control for family income level is based on a continuous measure of family income as a percentage of the poverty level, computed by NCHS using information on household size and the federal poverty guidelines. Preliminary analysis revealed a clear threshold effect at 150% of the poverty level for three outcomes and no income effect, regardless of measure, used for the fourth. Therefore, models include a binary indicator coded one for households with incomes less than 150% of the poverty level and zero otherwise.

The models include two dummy indicators of the presence of other children in the respondent's home. One indicates the number of young children, whose presence entails more physical labor and a greater degree of supervision. Respondents with more than one co-resident child under age five were coded one; respondents with just one child under age five were coded zero. School-aged children need somewhat less direct supervision and are able to perform at least some tasks without parental assistance; moreover, some are able to assist younger siblings with some tasks (e.g., playing). The presence of older children also is represented by a single dummy indicator, coded one for respondents who have any children ages 5 to 18 in the home and zero otherwise.

Controls for respondent's own characteristics include age at interview, measured in years, and a binary indicator coded one if the respondent was legally married to his co-resident female partner. A set of three dummies representing educational attainment was constructed from information on highest attained degree and highest grade of school completed. Respondents who indicated that they completed 12 or fewer years of school without receiving a high school degree or GED are coded as having completed less than 12 years of school. Those who reported having a high school diploma (or its equivalent) or college experience but had not completed a bachelor's degree were coded as high school graduates, and those who had a bachelor's degree or a graduate or professional degree were coded as college or higher. Less than 12 years of schooling served as the omitted category in the multivariate models. A set of dummy variables that control for father's race and ethnicity is based on an NSFG measure that differentiates respondents who self-identify as Hispanic or as non-Hispanic and white, non-Hispanic and black, and non-Hispanic but a race other than white or black. Hispanic is treated as the reference

group. Models also include a dummy control for nativity status, where one indicates the respondent was born outside the United States.

The control for men's beliefs about appropriate family roles for women and men is based on an item in the NSFG that asks respondents to what extent they agreed with the statement, "It is much better for everyone if the man earns the main living and the woman takes care of the home and family." Respondents could choose from four categories ranging from strongly agree to strongly disagree; a minority were coded as neither agree nor disagree. Responses were collapsed into a single dummy indicator. Responses of "strongly disagree" or "disagree" were coded as one, representing progressive gender beliefs, and responses of "strongly agree," "agree," or "neither agree nor disagree" were coded zero.

Analysis

Descriptive analyses take the form of graphic descriptions of change over time in the proportion of fathers who engaged daily in each of the four parenting behaviors, and the proportion of fathers in each of the four employment status categories. Multivariate models of the four dichotomous dependent variables are estimated using logistic regression. Product terms for time and employment were used to assess the conditioning effects of time. All analyses were conducted with Stata SE, version 13, and adjusted for the multi-stage sampling design using Stata's *svy* commands and the NSFG-supplied sample weights.

FINDINGS

Descriptive results

Before discussing trends in the dependent variables and in the employment patterns of respondents and their wives/partners, we briefly discuss a key implication of the descriptive statistics for the sample, shown in Appendix Table A. Overall, they suggest that the primary assumption underlying our analytic strategy—that respondents in each calendar year can be treated as a representative cross-section—is reasonable. Although the distribution of the sample across the control variables fluctuates somewhat from one year to the next, most of these changes are consistent with the effects of a recession (e.g., share of respondents with household incomes less than 150% of the poverty level increased), and few are statistically significant. Two variables—the number of children under age 5 and respondent's educational attainment—do show statistically significant change and the nature of these changes are not clearly attributable to the recession. We suspect that these changes reflect the fielding of the survey and perhaps variation in the types of persons interviewed at the survey start and end points. Because the survey was in the field only during the last six months of 2006 and the first six months of 2010, the share of the sample interviewed in 2006 and in 2010 is noticeably lower than in the intervening years (12% and 14%, respectively, compared to an average of 24%). We return to this point in the discussion.

Figure 1 shows the probability of fathers' participation in the care of their preschool children by type of care and by year. Each panel presents one of the four types of care-giving behavior; comparison across panels shows that fathers' participation in the care of their preschool children varies considerably across behavior types. Overall, fathers are most likely to play with their preschooler on a daily basis (81% average probability) and least likely to read with their child daily (29%). Fathers' probability of

performing physical care tasks every day averages about 58%, less than their probability of sharing meals with their preschooler (72% on average).

--- Figure 1 about here ---

T-tests based on pairwise comparisons of the year-specific probabilities were used to evaluate statistical significance of change over time in each type of care-giving. The probabilities of just two types change significantly ($p < .05$): physical care of the child, including bathing, diapering or toilet assistance, and dressing; and play. The probability of daily participation in physical care, which remained relatively stable at about 53% from 2006 through 2008, was 14 points higher in the last year of the recession and the first year of the jobless recovery. Change in the probability of play shows a different pattern. As noted above, the average level of daily play is quite high; in four of the five years, the estimated probability of daily play exceeded 83%. In 2007, however, as the economy deteriorated, the probability that fathers reported daily play with their preschooler child dipped to 76%, significantly lower than in any other year.

The four panels of Figure 2 track change over time in the probability that the father was the sole breadwinner, that his wife/partner was the sole breadwinner, that both worked for pay, or that neither had paid employment. Consistent with the more rapid decrease in male employment during the onset of the Great Recession, the share of fathers of preschoolers who were the sole breadwinners fell 17 points between 2006 and 2007, from 52% to 35%. In contrast, the share of fathers who were employed and had an employed wife/partner increased from 44% to 57% and the share of fathers who were not employed but had an employed wife/partner tripled, from 2% to 6%. Between 2008 and 2009, the share of fathers who were employed but whose wife/partner was not fell an

additional five points, while the probability that fathers and their wives/partners both worked continued to rise, reaching 60% in 2009. Both trends reversed between 2009 and 2010, however: The share of fathers who were sole breadwinners moved up to 35% and the percent who were employed with an employed wife/partner dropped from 60 to 48%. The upward movement in the probability that only the wife/partner worked slowed between 2008 and 2009 but by 2010 had moved upward again to 10%. The probability that neither spouse had paid employment was just 1% in 2006, but it trended slowly upward over the period, reaching 6% in 2010.

--- Figure 2 about here ---

Multivariate analyses

Figure 1 shows that, over the course of the Great Recession, an increasing share of fathers participated in the physical care of their preschoolers on a daily basis, and Figure 2 suggests that, over this period, a decreasing share of fathers were sole earners and an increasing share of their wives/partners were responsible for at least some share of family income. The multivariate analyses consider the association between these changes: were changes in fathers' participation in child care linked to changes in couples' paid employment patterns? To answer this question, we estimated a logistic regression model for each dependent variable. The results are presented in two tables: Table 1 shows the year effects and Table 2 shows the effects of employment and the controls.

The estimates in Table 1 are odds ratios indicating the year effects, net of employment and the full set of control variables. The odds ratios in Table 1 are identical to what would have been obtained if each model had been estimated four times, changing

the reference category each time (see Mitchell, 2012). For example, in the first four rows, 2006 is treated as the reference category; in the next three rows, 2007 serves as the reference category, and so on. These pairwise comparisons allow a more detailed consideration of time effects than that provided by the usual presentation that considers effects relative to one omitted category.

--- Table 1 about here---

The results are consistent with the findings in Figure 1. Column 1 shows that the odds of fathers' daily participation in the physical care of their infants and preschoolers were 79% higher in 2009 than in 2006 and nearly twice as high in 2009 than in 2007 and 2008. In 2010, the odds of father involvement were roughly 70% higher than in 2007 and 2008. Column 3 shows that the odds of daily play in 2007 were about 50% lower than in 2006, two times higher in 2009 and 60% higher in 2010. The lack of significant coefficients in Columns 2 and 4, which show the results for eating meals and reading, respectively, echoes the lack of significant change over time observed in Figure 1.

The odds ratios in Table 2 were estimated from logistic regression models that included the year dummies, with 2006 omitted. The estimates for couples' employment indicate the importance of fathers' employment for their participation in day-to-day parenting tasks. Compared to fathers who were the sole breadwinner, fathers whose wife or partner was the sole earner were more than three times as likely to participate daily in their child's physical care, three times more likely to eat meals with their child, and more than twice as likely to read daily to their child. Men who shared the breadwinner role with their wife or partner were at least half as likely to participate in all four aspects of daily care compared to men who were the sole earner.

In the next stage of the analysis, product terms representing the statistical interaction of time and the four employment categories were added to each of the four models. *F*-*t*ests showed no improvement in model fit for any of the four outcomes. In other words, changes over time in fathers' daily participation in parenting tasks were similar across families, regardless of fathers' employment status or that of his wife/partner.

--- Table 2 about here ---

Figure 3 shows the implications of these findings using marginal predicted probabilities estimated from the models in Table 2. Note first that, for each type of participation, the differences between employment categories are identical over time. For example, the probability of participation in physical care tasks increases by the same amount between 2008 and 2009 for fathers in all four employment categories. This reflects the fact that employment effects were not conditional on year.

--- Figure 3 about here ---

Figure 3 illustrates that the probability of daily engagement in each of the four tasks is lowest for sole breadwinner fathers and, further, that fathers are most likely to participate in physical care of their children and to eat meals with them if their wives or partners are the sole earners. The probability of daily play exceeds 80% for all men except sole breadwinners in all years other than 2007. Men whose wives/partners are not employed and who are unemployed themselves are as likely to read to their child on a daily basis as men whose wives/partners are the sole earner, and their probability of eating meals with their preschooler is roughly equal to men who are employed and have an employed wife or partner.

DISCUSSION

Our results are broadly consistent with the "recession effect" on fathers' involvement in the care of their preschoolers described by Casper and O'Connell (1998) for the 1990-1991 recession. The probability that fathers participated on a daily basis in the physical care of their young children increased substantially over the course of the Great Recession. The start of this increase lagged the recession's onset, however, becoming apparent only in 2009; further, the higher level of participation was sustained at least until the end of our observation period, a year beyond the recession's official end.

Both findings likely reflect specific characteristics of the Great Recession. That the increase in fathers' involvement lagged the recession's start by more than a year may be linked to the age-graded nature of employment losses. Weekly employment among men in their late 20s and early 30s was actually higher during the first year of the recession than it had been the previous year; moreover, employment for this age group did not begin to fall until late 2008, almost a year into the recession (BLS, 2012). Because job losses were concentrated among older workers, young men and women may have perceived less economic threat until late in 2008.

Like the 1990-91 and 2001 recessions, the Great Recession was followed by a jobless recovery; however, unemployment levels, particularly long-term unemployment rates, have remained much higher for a much longer period in the wake of the Great Recession (Moffitt, 2013). Moreover, employment following the Great Recession has more often been part-time and low-wage, reflecting not only the loss of manufacturing jobs and the growth of service work, but also changes in employer practices, particularly

their reliance on a contingent labor force (Danziger, 2013; Freeman, 2013). Lower wages and greater uncertainty may mean that higher levels of fathers' participation in the daily labor of parenting become part of the "new normal."

Not surprisingly, our results also showed that sole-earner fathers had the lowest levels of participation in daily physical care of their preschoolers and fathers whose wives/partners were the sole earners had the highest levels. In other words, fathers without work-related time constraints were more likely to be involved in the day-to-day work of caring for their preschoolers, particularly if their wives/partners did have work-related time constraints. Notably, however, the "recession effect" was operated independently of men's employment status or the employment status of their wives. Instead, participation in the daily physical labor of parenting increased to an equal extent for all fathers. That fathers' responses did not differ by their employment statuses is consistent with the universally high levels of economic uncertainty apparent in 2009 (Zvonkovic et al., 2014) and late 2010 (Hayes & Hartmann, 2011).

Casper and O'Connell (1998) suggested that mothers have greater economic bargaining power during recessions, as the possibility of male job loss looms large. Although we cannot test this hypothesis directly with the NSFG data, it is not inconsistent with our findings. As economic uncertainty increased, the level of fathers' participation in the day-to-day care of their preschoolers also increased, even among fathers who were the sole earners for their families. Fathers' participation in the less laborious task of daily reading to their children, however, showed little change, as did their probability of having meals with their children. That men's involvement in the

"dirty labor" of parenting increased but not their participation in less onerous activities is in-line with an increase in women's bargaining power.

Fathers' participation in daily play did change, however, falling sharply at the recession's onset. Considered relative to 2006, the 2007 decrease might simply be a reflection of sampling issues left unresolved by adjustments for the survey design. However, the probability of daily play in 2007 also was significantly lower than in 2009 and 2010, bolstering our confidence in the reliability of this finding. That fewer fathers played with their children on a daily basis in the year leading up to the recession—as the housing market collapsed and financial liquidity dissolved—is consistent with the family-related effects of economic stress observed by Elder (1999).

The decrease in play, viewed in conjunction with the increase in physical care, suggests the complexity of families' reaction to the changing economic conditions of the past seven years. Although it is certainly possible that women exercise greater bargaining power in the face of rising rates of male unemployment, it is possible that the stress and uncertainty, evident in the lower rates of daily play, may have engendered a greater sense of cooperation, evidenced by the increase in men's participation in the "dirty labor" of daily child care. It is not difficult to imagine that couples observed mounting job losses among friends and family members, and concluded that fathers' participation in daily child care tasks might soon be necessary. We are proposing, in other words, that families were flexible in their response to a potentially catastrophic shift in the broader economy. To paraphrase Cherlin and his colleagues (2013: 215), families can and do take actions to mitigate the anticipated effects of economic forces.

Unlike the Casper and O'Connell study, we have been able to consider multiple aspects of daily parenting and we were able to consider not only dual-earner families, but families with a single earner (whether male or female) and families in which neither parent was employed outside the household. Thus, we were able to determine that all fathers increased their participation in a specific form of parenting, physical care. At the same time, we lack specificity about the intensiveness and nature of this care: Men who bathe their child nightly while their wife or partner prepares a meal are far less involved in their child's physical care than men who take primary responsibility for their child's care while their wives are working. Moreover, we have no means of determining differences in employment intensity among fathers or between fathers and their wives/partners.

Attending to the daily needs of a young child requires a tremendous investment of time, unpleasant and often repetitive labor, and emotional and financial resources. The gendered division of parenting responsibilities has diminished somewhat in recent decades, but differences remain. Our findings add to the evidence that gendered patterns of parenting can change and that parents can be flexible when economic circumstances demand it. However, institutional changes—such as a more comprehensive child care system, like that in France, and more generous family leave policies that would allow both parents time to bond with their newborns, as in Sweden—would allow parents to exercise greater flexibility all the time rather than only when forced by circumstances.

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Table 1. Pairwise Comparisons of Odds Ratios (Standard Errors) for Interview Year, Estimated from Logistic Regression Models[a] of Father-Provided Daily Care: Married and Cohabiting Fathers of Children under 5, National Survey of Family Growth, 2006–2010. (N = 1,595)

	1 Physical	2 Meals	3 Play	4 Read
Interview Year:				
2007 vs. 2006	0.92	0.92	0.49 **	1.05
	(0.22)	(0.21)	(0.12)	(0.26)
2008 vs. 2006	0.93	1.02	0.60	0.76
	(0.23)	(0.26)	(0.19)	(0.21)
2009 vs. 2006	1.79 *	1.33	0.90	1.08
	(0.45)	(0.33)	(0.25)	(0.30)
2010 vs. 2006	1.58	1.14	0.72	1.19
	(0.47)	(0.31)	(0.22)	(0.31)
2008 vs. 2007	1.02	1.11	1.34	0.73
	(0.20)	(0.24)	(0.38)	(0.16)
2009 vs. 2007	1.96 **	1.44	2.01 **	0.73
	(0.43)	(0.34)	(0.52)	(0.28)
2010 vs. 2007	1.73 *	1.24	1.60 *	1.14
	(0.47)	(0.35)	(0.38)	(0.30)
2009 vs. 2008	1.93 **	1.30	1.50	1.41
	(0.39)	(0.30)	(0.41)	(0.39)
2010 vs. 2008	1.70 *	1.12	1.19	1.56
	(0.43)	(0.30)	(0.36)	(0.40)
2010 vs. 2009	0.88	0.86	0.80	1.10
	(0.25)	(0.25)	(0.24)	(0.29)

$^{*}p \leq 0.05$; $^{**}p \leq 0.01$; $^{***}p \leq 0.001$

[a] Estimates control for effects of employment, respondent's gender attitude, race/ethnicity, nativity status, marital status, educational attainment, income relative to poverty line, number of preschoolers, and presence of older children.

Table 2. Odds Ratios (Linearized Standard Errors) from Models [a] of Father-Provided Daily Care: Married and Cohabiting Fathers of Children under 5, National Survey of Family Growth, 2006–2010. (N = 1,595)

	1 Physical	2 Meals	3 Play	4 Read
Couple's employment:				
Only R employed (ref)	---	---	---	---
Only W/P employed	3.33 ***	3.05 *	1.65	2.15 *
	(1.21)	(1.66)	(0.83)	(0.78)
Both employed	1.67 **	1.63 *	1.86 **	1.48 **
	(0.27)	(0.35)	(0.39)	(0.26)
Both unemployed	1.82	1.88	2.26	2.13
	(0.72)	(0.74)	(1.03)	(0.91)
Progressive gender attitude	1.12	1.15	0.94	0.87
	(0.19)	(0.24)	(0.22)	(0.15)
Race and Hispanicity				
Hispanic, any race (ref)	---	---	---	---
Non-Hispanic white	1.53	1.53 *	1.57	1.59
	(0.34)	(0.27)	(0.41)	(0.47)
Non-Hispanic black	2.45 **	1.61	1.23	2.05
	(0.66)	(0.45)	(0.42)	(0.80)
Non-Hispanic other	1.93	1.47	2.20*	1.34
	(0.70)	(0.44)	(0.86)	(0.55)
Foreign-born	0.81	1.07	0.70	1.23
	(0.19)	(0.22)	(0.17)	(0.27)
R's age at interview	0.99	0.99	1.00	1.05 **
	(0.01)	(0.02)	(0.02)	(0.02)
Married to current partner	1.06	1.19	1.16	1.21
	(0.21)	(0.28)	(0.94)	(0.19)
Two or more children < 5	1.35	1.32	1.10	1.06
	(0.26)	(0.29)	(0.28)	(0.20)
One or more children ages 5 – 18	0.66 *	1.16	0.60 **	0.51 ***
	(0.11)	(0.21)	(0.11)	(0.09)
Highest degree				
Did not complete HS (ref)	---	---	---	---
High school	0.68	0.92	0.81	0.80
	(0.15)	(0.18)	(0.19)	(0.15)

Table 2, continued.

	1 Physical	2 Meals	3 Play	4 Read
College or higher	0.79 (0.21)	0.89 (0.26)	0.67 (0.19)	0.94 (0.23)
HH income ≤ 150% of poverty	0.66 * (0.12)	0.97 (0.18)	1.08 (0.25)	0.75 (0.17)
Constant	1.63 (0.77)	1.23 (0.58)	3.70 * (1.91)	0.05 (0.03)
Model *F*	4.98 ***	1.62	3.89 ***	3.41 ***
Degrees of freedom	16, 81	16, 81	16, 81	16, 81

*p≤0.05; **p≤0.01; ***p≤0.001

[a] Models adjusted for year. See text for explanation.

Appendix Table A: Descriptive Statistics, Overall and By Year: Married and Cohabiting Fathers with Co-Resident Children Ages 4 and Under [a]

		By year:				
	%	2006	2007	2008	2009	2010
Dependent Variables						
Care provided on daily basis:						
Bathe, diaper/toilet, dress [b]	0.58	0.53	0.52	0.53	0.67	0.66
Meals	0.72	0.70	0.69	0.72	0.77	0.74
Read	0.29	0.29	0.30	0.26	0.31	0.33
Play [b]	0.81	0.87	0.76	0.81	0.86	0.83
Explanatory Variables						
Year of interview						
2006 (ref)	0.12	---	---	---	---	---
2007	0.26	---	---	---	---	---
2008	0.23	---	---	---	---	---
2009	0.24	---	---	---	---	---
2010	0.14	---	---	---	---	---
Couple's Employment Status [b]						
R employed, W/P not employed (ref)	0.35	0.52	0.35	0.33	0.30	0.35
R not employed, W/P employed	0.06	0.02	0.06	0.07	0.07	0.10
Both employed	0.55	0.44	0.57	0.58	0.60	0.48
Neither employed	0.03	0.01	0.03	0.02	0.04	0.06
Controls						
HH income ≤ 150% of poverty level	0.28	0.27	0.21	0.26	0.34	0.31
Two or more children < 5 in HH [b]	0.28	0.38	0.22	0.27	0.28	0.31
One or more children 5-18 in HH	0.50	0.41	0.53	0.51	0.51	0.49
Respondent' age at interview (mean)	32.6	32.0	32.5	33.0	32.7	32.2
R married to current partner	0.80	0.86	0.80	0.79	0.82	0.75
Respondent's highest degree attained [b]						
Did not complete high school (ref)	0.23	0.12	0.16	0.26	0.28	0.28
High school	0.49	0.51	0.58	0.44	0.44	0.47
College or higher	0.28	0.37	0.26	0.30	0.29	0.25
Respondent's Race and Hispanicity						
Hispanic, any race (ref)	0.24	0.22	0.22	0.23	0.28	0.25
Non-Hispanic white	0.59	0.54	0.63	0.58	0.58	0.58
Non-Hispanic black	0.10	0.09	0.07	0.13	0.09	0.13
Non-Hispanic other race	0.07	0.15	0.08	0.06	0.05	0.04

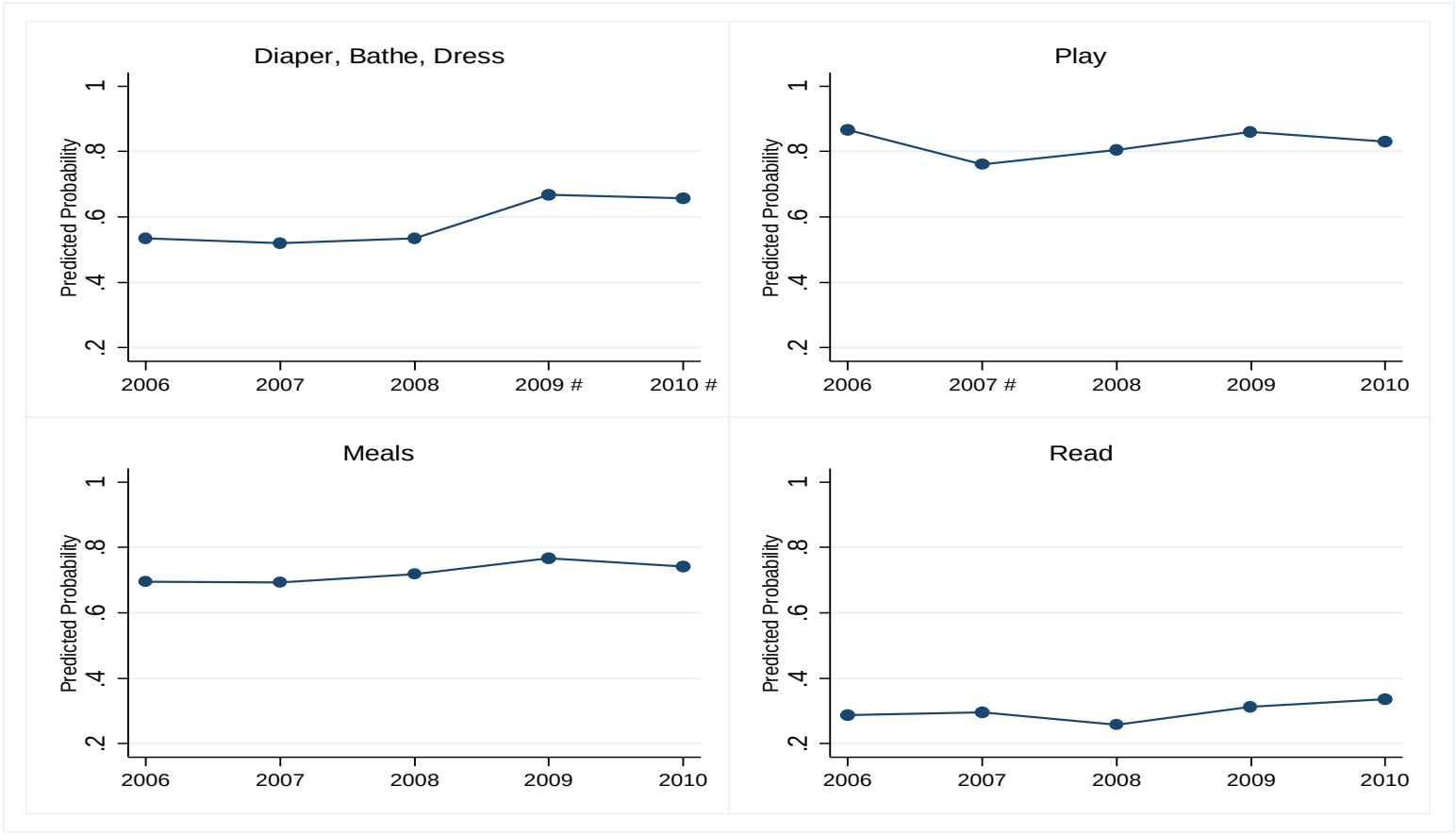
Appendix, continued

		By year:				
	%	2006	2007	2008	2009	2010
Respondent born outside U.S.	0.24	0.27	0.20	0.26	0.28	0.22
R. has progressive gender attitude	0.58	0.58	0.60	0.55	0.58	0.59
N	1595	225	363	358	406	243

[a] All estimates adjusted for design effects.

[b] Difference across years significant at $p < .05$

Figure 1. Probability of Fathers' Participation in Caring for Their Preschool Children, by Participation Type and Year, National Survey of Family Growth 2006 – 2010



Probability of participation differs significantly ($p<.05$) from probability in unmarked years

Figure 2. Probability of Paid Employment for Respondent and Wife/Partner by Year, National Survey of Family Growth 2006 – 2010

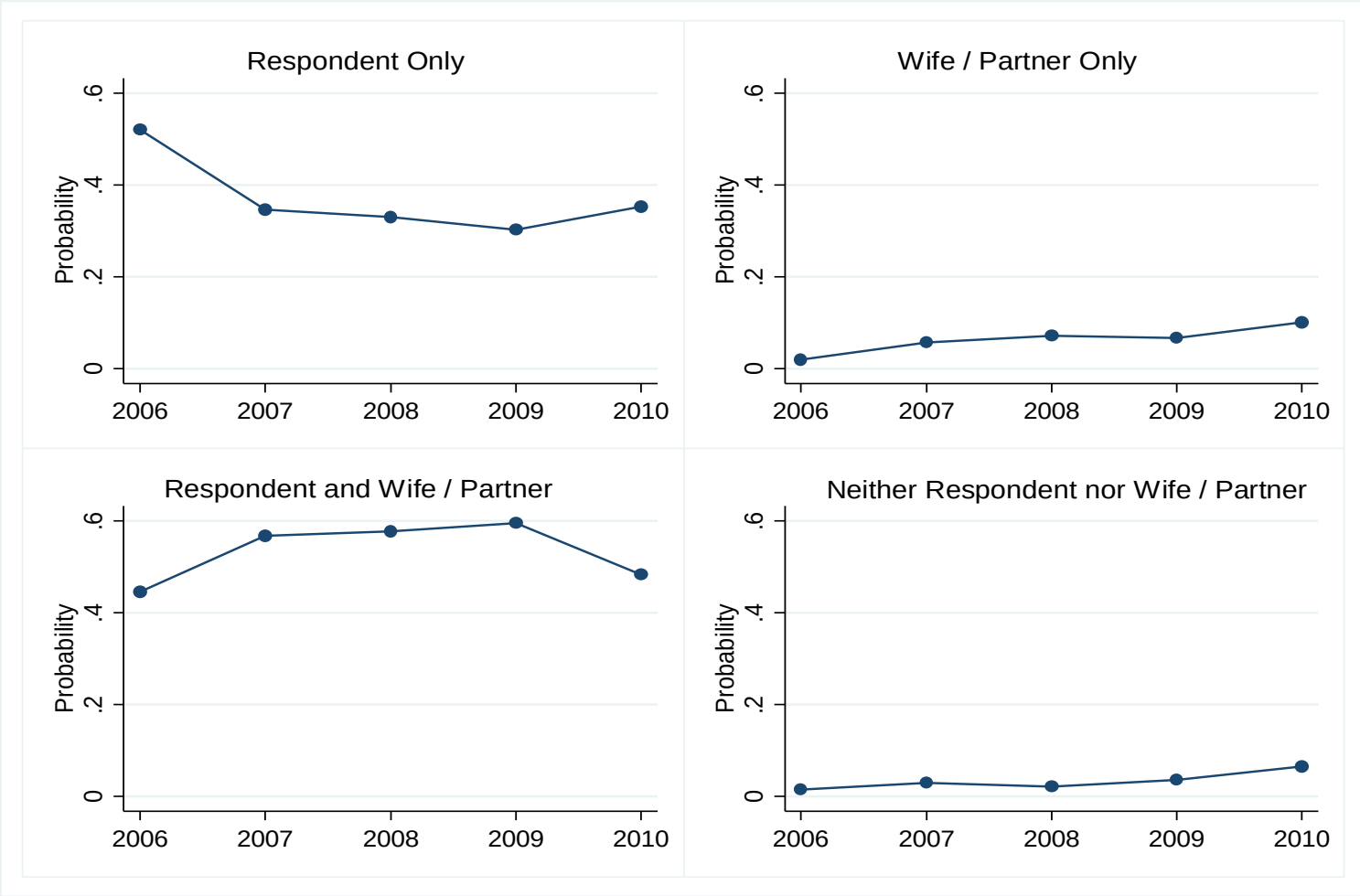


Figure 3. Probability of Fathers' Participation in Caring for Their Preschool Children, by Participation Type, Couples' Employment Status, and Year, National Survey of Family Growth 2006 – 2010