Published in final edited form as:

Fam Sci. 2015 ; 6(1): 318–329. doi:10.1080/19424620.2015.1082805.

Family structure and trends in US fathers' time with children, 2003–2013

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Abstract

Father's child care time increased substantially between 1965 and 2011. The objective of this paper is to examine whether there was continued change in father care time and whether father time was linked to family structure and partner's employment. Data on the time use of men 18 to 64 living with children under age 18 were drawn from the American Time Use Survey from 2003 to 2013 (N = 20,609). Not all fathers reported child care time; the proportion of fathers reporting primary child care increased during the recession but by 2013 had returned to pre-recessionary levels. Fathers' total time in child care increased significantly as did their time in play and management activities. The additional amount of child care time contributed by unemployed fathers was substantial – 40 to 55 minutes per day – compared to employed fathers with employed wives. The recession impacted single father' care more than partnered fathers'.

Keywords

fathers; child care; time use; economic conditions; trends

Introduction

Major changes in men's work and family time have occurred over the past decades in the United States. According to detailed time diary studies, men's paid work time has decreased whereas unpaid household work and child care have risen (Gershuny, 2000; Sayer, Bianchi & Robinson, 2004). Particularly striking is the increase in men's time caring for children. Although mothers still spend twice as many hours caring for children as fathers, a recent report showed that fathers' care time has risen almost 3-fold, amounting to 7.3 hours per week on average in 2011 compared to only 2.5 hours in 1965 (Parker & Wang, 2013). This study suggested that most of the increase in time occurred prior to 2000 (when it was 6.8), with child care time fairly stable from 2000 to 2011. For mothers, in contrast, paid work has risen over several decades, household work time has declined, and mothers' child care time increased by about one-third (Parker & Wang, 2013).

Substantial caution is needed in interpreting the significance of changes in fathers' child care time. Does it reflect increased leisure time or a real increase in father involvement in children's daily care? Fathers have historically participated more in play and leisure activities with children and less in routine day-to-day care activities (Yeung, Sandberg, Davis-Kean & Hofferth, 2001). If fathers are taking on more responsibility for children than

in the past, we would expect fathers to spend more of their time in routine care and management activities.

In addition, the family context of children's care has been changing. Continuing the long-term trend of increased employment of married women, dual earner families increased as a fraction of the total of two-parent families. Fathers are more likely to spend time with children in dual-earner families than in single father-earner families (Raley, Bianchi & Wang, 2012). The major family structure change over the past decade was the increase in the proportion of children living with single fathers (Hofferth, Pleck, Goldscheider, Curtin & Hrapczynski, 2013) with primary responsibility for children. Although the number in this family type remains small, a change in proportion over time could influence overall father involvement. Consequently, it is important to examine the involvement of fathers in different types of families. The trend in father involvement may differ across family structure categories.

The second major change was the 2008–2009 Great Recession, which led to more families headed by a married couple in which the female was employed and the male was not, or both were unemployed (Berik & Kongar, 2013). Unemployment has affected the availability of and attitudes of parents towards child care. Male involvement in the care of their children may have increased as the formerly employed parent takes over the home tasks while the other parent moves into the work force (Mattingly & Smith, 2010).

The objective of this paper is to examine changes in father child care time between 2003 and 2013, controlling for other factors that influence child care time, and focusing on family structure differences.

Theoretical framework

We draw upon two different theoretical approaches. Based on economic theory regarding the division of labor in the home (Becker, 1991) and time availability theory (Coverman, 1985), we argue that parents' time allocations are constrained by their own and their partner's employment demands. Because the financial returns have traditionally been greater for fathers than mothers, fathers have tended to specialize in paid work, participating little in household work and the day-to-day rearing of children, which has been the domain of mothers. However, over the past decade women's employment opportunities, participation, and pay have risen and men's opportunities and participation have declined (Boushey, 2009); if participation in home tasks are linked to time availability, we expect adjustment in the division of labor at home.

The time availability hypothesis suggests that parents participate based upon their own employment hours and upon their partner's employment hours. The more the father works, the less care he will provide; however, at the same time, the more his partner works, the more care he provides. This leads to the prediction that in two-parent male breadwinner families the father should be least engaged in care of children because he is employed and has less time available and his partner, who is not, has more time available. Even though in two-parent dual earner families, fathers have less time, we would expect the father to participate more than in sole breadwinner families because mothers also have less time.

Other research has shown that the father's share of household work is high in these families (Raley et al., 2012). Based on the time availability hypothesis, the father is expected to be most engaged when he is not employed and his wife/partner is employed. Single fathers without a partner have no choice; they have to provide care, but because they are also constrained by their need to work their management strategies may differ from those of single mothers. They may rely on purchased or relative care.

Our second theory is that of gender display. This theory argues that, at least in the past, nonemployed men demonstrated their masculinity by refusing to participate in household work even when they had the time to do it; that is, they were unwilling to do it (Brines, 1994). Although gender display may contribute to employed married men with full-time employed wives doing less than an equal share of household work, their masculinity is not threatened; therefore, gender display is less salient. If neither partner is employed, the prediction is ambiguous. Time availability would suggest that men will do more whereas gender display predicts that men will not do more because their partner is available to do the household work. When gender display may become most visible in actual time expenditures is when men are not employed but their spouses are. If gender display is operating, men should not do more household work when unemployed than when employed. An alternative hypothesis is that of incapacity; six of ten nonemployed men are sick or disabled (Stewart, 2006).

Of course, the time availability theory was developed primarily to explain differences in household work in different family configurations, not care of children. Research suggests that rather than being undesirable drudge work, the care of children is rewarding and has become more of a leisure time activity. Attitudes of men towards fathering have become more positive over time and men look forward to parenting their children (Edin & Nelson, 2013; Hofferth, Pleck, et al., 2013; Sayer et al., 2004).

There are a number of aspects of time that could be examined. This paper focuses on primary care time, time in which the parent reports that the particular care activity was the primary activity. We examine whether the father spent any time in primary child care and then, given that some time was reported, the amount of time spent. Previous research suggests that whether fathers report primary care at all may be based more on schedule such as whether traveling that day for work (Pacholok & Gauthier, 2010) whereas the amount of time better reflects attitudes, values, and sensitivity to gender norms. That research suggests that father reports are realistic because they are linked to work/travel schedule. The present study does not also examine secondary child care, child care while doing another primary activity; research shows that fathers do not report much of it (Van Tienoven, Glorieux, Minnen & Daniels, 2014).

Hypotheses—According to time availability theory, whether fathers report engaging in primary care of children will be dependent on their own and on their partner's employment. However, fathers who are unemployed may keep their child care engagement low to maintain their gender status.

Hypothesis 1: Relative to fathers in dual earner families, fathers who are sole breadwinner of a couple will be less likely to engage in child care activities and will spend less time in such activities. Fathers who have an employed partner but they themselves are not employed will be more likely to engage and will spend more time in such activities than fathers in dual earner families. Finally, single custodial fathers will be more likely to report child care and will report more time than father in dual-earner couples. The prediction for nonemployed men with a nonemployed partner is ambiguous.

Consistent with the predictions that increased maternal employment and the decline in maternal time at home should be associated with increased spouse participation in unpaid work of the household, men's household work has increased (Parker & Wang, 2013). This has not just been an American phenomenon, as described earlier, but also a trend that has been occurring across the European nations. A study of men's unpaid work in 20 countries between 1965 and 1998 found increased participation of men in unpaid family work, including household work and childcare (Hook, 2006). A recent update for 7 European nations, the U.S. and Canada, incorporating multiple years of time use survey data, demonstrates that fathers have been increasing their contribution to child care and core domestic work, particularly younger and more highly educated fathers (Sullivan, Billari & Altintas, 2014). Although a number of important research projects have demonstrated fathers' increased participation in unpaid household work, including household work and child care, few studies have examined trends in child care separately from housework. Thus we make a contribution to the literature by focusing on child care.

Hypothesis 2: Fathers have increased their engagement in child care by being more likely to report doing child care and by spending more time in it at the end of the 2000s than at the beginning.

In the past men have traditionally participated in some forms of child care to the exclusion of others. For example, they have traditionally spent time playing with children, but not engaging in routine physical care or management of children's activities (Yeung et al., 2001). Thus our indicator of change is whether fathers increased involvement in routine and managerial activities.

Hypothesis 3: Fathers will be more likely to report engagement in routine physical care and management at the end of the 2000s than at the beginning.

Finally, we examine the economic context in which the paid and unpaid work decision, including child care time, takes place. We examine trends over the past decade in father's engagement and child care time, differentiating economic conditions across survey years. We argue that the decisions men make will be linked to the economic opportunities available at the time. The higher the unemployment rate, the more likely men will invest time in their families. This is particularly true if the man loses his job. However it may not require a job loss to change; change in hours or job insecurity may also lead to changes in the division of labor at home. Economic conditions are likely to alter the relationship between family structure and the father's engagement with his children; the effects of family structure may differ for men who are facing a difficult labor market and those who are not.

Hypothesis 4: We expect that fathers will be more likely to report doing child care in the recessionary period than prior to the recession.

Hypothesis 5: We expect that the influence of the recession should be stronger for men who are most vulnerable: single fathers with no partner to send into the work force.

To test these hypotheses we first examine family structure and maternal/paternal employment differences in father time with children over the decade. We test the extent to which fathers' time caring for children is consistent with the time availability model or the gender display model by comparing fathers' reports of spending time in primary child care by family structure and partner employment.

Second, we examine variation by economic opportunity in whether fathers engage in child care and the amount of time spent in such care. In the Great Recession of 2007–2009, three-quarters of job losers were men (Boushey, 2009). Research has shown that wives responded by entering the work force (Mattingly & Smith, 2010). We hypothesized that more fathers would report spending time caring for their children in the recessionary period compared with pre-recession or post-recession. However, this association may simply be due to increased female employment and reduced male employment; if so, any association with the recession may disappear once the employment of family members is included. Because there has been a long-term trend toward fathers spending increased time with children (Parker & Wang, 2013), we expect more fathers to report spending time with children in recent years compared with early years of this century; that is, we expect a long-term increase as well as a recession-induced rise in paternal involvement. We test differences in father reports of child care across family structure types for different periods of time: prerecession, recession, and recovery. This will provide information on the implications of business cycle and continued social change for men's care of children.

Finally, we explore whether the findings apply to all types of primary child care. Previous research has shown fathers to specialize in leisure time activities rather than routine care. However, this may no longer be the case. This paper separates total daily primary child care provided by the father in different family types into routine care, play, management, and teaching.

Method

Data

Data were drawn from the American Time Use Survey (ATUS), a nationally representative survey of the time use of Americans age 15 and older (Bureau of Labor Statistics, 2014; Hofferth, Flood & Sobek, 2013). Participants are selected randomly from households completing their participation in the Current Population Survey (CPS). In telephone interviews in English or Spanish between two and five months after the final CPS household interview, participating sample respondents describe in their own words their activities over the 24-hour period beginning at 4 a.m. on the designated day and continuing through 3:59 a.m. the following day. Information on the activities is collected sequentially and a beginning and ending time is recorded for each activity. Additional information about the

location of the activity and who is present is collected. Distributed across the days of the week over the year, 10 percent of assigned ATUS diary days are allocated to each of the weekdays; 25 percent are assigned to Saturdays, and 25 percent are assigned to Sundays. Weights provided by the Bureau of Labor Statistics (BLS) adjust for the oversampling of weekend days and for the survey design.

Our analysis sample consists of men 18 to 64 living with children under 18 in the household in the 2003 through 2013 waves of the ATUS. Of the 22,199 men who met our criteria, 1,590 (7%) did not report their family's total annual income. Because the family income variable is the only one with missing data, we examined whether men who did not report family income have different socio-demographic characteristics from those who reported family income. We found that the former were older, more likely to be Black, had fewer years of schooling, and reported an older age of their youngest child than the latter. Because the fraction of those missing in family income was small and the socio-demographic differences were included as controls in the analysis, we deleted those who did not report family income. This resulted in a sample of 20,609.

Measures

Time spent in primary child care—Respondent activities are coded as primary child care if their main activity is providing care for children or engaging in an activity that uniquely benefits the child. We grouped primary child care time into four categories: Routine care, play, management, and teaching. Routine care includes physical care for children, helping or teaching children (not related to education), looking after children, and providing medical care to children. Play includes playing with household children other than sports, doing arts and crafts with children, and playing sports with children. Management of children consists of organization and planning for children, attending children's events, waiting for or with children, picking up or dropping off children, obtaining medical care for children, waiting associated with children's health, and traveling related to children's health or caring for children. Lastly, teaching includes reading to or with children, talking with or listening to children, and doing activities related to children's education, such as homework, meetings and school conferences, home schooling, and waiting related to children's education.

We examined whether or not fathers engaged in any primary child care activities on the day of the diary. For those who reported some primary child care time, we separately examined the amount of time spent. Child care time was scaled to be more comparable to the other variables by dividing by 10.

Year of the survey—Data come from all the available waves of the ATUS, 2003–2013. We are interested in two aspects of year: time trend and any influence of the official recessionary period, which is defined by the National Bureau of Economic Research as lasting from December 2007 through June of 2009 (National Bureau of Economic Research, 2010). Because of the long lasting recessionary effects on unemployment, we also created a dummy variable for July 2009 through December 2010 as the “jobless recovery.” We examine four dummy variables: recession, jobless recovery, and post-recession, compared to

the pre-recession period January 2003–November 2007 (Berik & Kongar, 2013). In addition, we explore an alternative model in which we include the annual level of male unemployment over the entire period of the survey (Bureau of Labor Statistics, 2014).

Family structure—All respondents are fathers; however, some live with a partner who may share care whereas others do not. The partnered status (married or cohabiting) and the dual career status of the family are combined to better adjust for differential availability of parents to care for children: dual earner couple (reference category), male earner/female nonearner couple, female earner/male nonearner couple, neither parent employed couple, and single father. Single fathers were defined as men who were living with at least one own child but were not living with a partner or spouse. They may have been living with a parent, an adult relative or a roommate.

Control variables—Other variables potentially linked to child care time include time spent sleeping and whether the data were collected on a weekday or weekend day. The more time spent sleeping the less time for child care. Income may also matter. Higher socioeconomic status families will be able to purchase paid care when needed so their primary routine time could be lower, although management time could be higher. Income was divided into quintiles based upon national income statistics for the years 2003 through 2013. Parental education indicates the human capital available to provide quality care and the preference for own care for children. Race and ethnicity are also potentially linked to activity time through cultural practices and values. An important individual characteristic potentially linked to time spent is that of age, potentially representing energy to devote to children. Number of children controls for the fact that the more children with whom the father can engage, the more time likely spent. The “age of youngest” controls for the fact that fathers tend to spend more time with older than younger children.

Analysis plan

After presenting simple descriptive comparisons of variables for the entire 2003–2013 sample, we examine trends in father’s time over the 11 years. In our multivariate models we first regress whether the father engaged in child care activities on the period dummies, family structure indicators, and controls. We then regress on the same set of variables the amount of time fathers spent in specific activities (for those who spent some time). Finally, we add the interactions between family structure and indicators of economic conditions. Weights created by the BLS are included to adjust for probability of selection and for day of week representation.

Results

Table 1 shows sample characteristics. About half (55%) were in dual earner couples and 30% were in male earner couples. Female earner, male nonearner couples comprised 6% and couples without an earner 3% of the sample. Six percent were single fathers. Men averaged 39 years of age and had completed one year of college. Two thirds of the sample was White, one-fifth was Hispanic, and the remaining fraction were Black, Asian/Pacific Islanders, and of other race/ethnic backgrounds. The youngest child averaged 6 years of age and families

averaged about 2 children. The families in our sample were much better off economically than the U.S. population; in 2012, only 28% were in the lowest 2 quintiles of income, based upon the distribution of all U.S. families, and 53% were in the top 2 quintiles.

Table 2, upper panel, shows the percentage of fathers reporting each child care activity on the diary day and the amount of time spent in it among those who reported child care. In order to test for both trends over time and the effect of the Great Recession, we combined the years into four groups: Pre-recession (2003-November 2007), Recession (December 2007-June 2009), Jobless recovery (July 2009-December 2010) and Recovery (January 2011-December 2013). The prerecession years are the comparison category.

Between the pre-recession and the recession period the proportion of fathers who reported engaging in any primary care of their children overall rose from 55% to 59%, a significant increase. Following the recession, the proportion who reported engaging in child care time dropped back to pre-recession levels. Recessionary increases occurred in the proportion who engaged in routine care, from 35% to 40%, a 14% increase, and play, from 16% to 19%, an 18% increase. Overall and in these two types of child care - routine care and play - there was no long-term trend in fathers reporting primary child care, as the proportions returned to pre-recession levels after June 2009. However, a long-term trend was present for management and teaching. The proportion of men reporting management activities rose from 25% to 27% between the pre-recession years and the recovery. The proportion reporting play also rose, from 16% to 18% from pre-recession to recovery. Both were statistically significant increases.

Among fathers who engaged in child care, the amount of time spent in each child care activity also increased with the recession. Their total time spent in any primary child care showed a significant increase of about 10 minutes between the pre-recession period and the recession. The total time was also 12 minutes higher in the recovery than in the pre-recessionary period; the time did not return to early 2000 levels. There were no differences in amount of time in specific forms of child care between the recession and pre-recession periods. However, two long-term trends were significant; fathers' time in play and in management increased significantly between pre-recession and recovery. These are simple means. To test for time trends we need to control for other factors that may also have changed between 2003 and 2013.

The lower panel of Table 2 shows that, compared with dual earner couples, 53% of sole male earners and 51% of single fathers reported engaging in primary child care, significantly lower than men in dual earner couples (57%). Fathers in female sole earner couples were significantly more likely to report engaging in primary child care (67%) than those in dual earner couples. The results were consistent across the different categories of care except that fathers in sole male-earner couples were more likely than those in dual earner couples to report playing with their child (20% vs. 16%). Single fathers did not differ from fathers in dual earner couples in reporting management and teaching activities. Among those reporting primary child care, the most time in total care, in routine care, and in management was reported by men in female sole earner couples and by men in couples in which neither was employed. The results were similar for play and teaching, though they did not reach

statistical significance. Again, these results do not control for other variables than may influence fathers' time in child care.

Table 3 shows the multivariate results for whether the father spent any time in primary child care activities and Table 4 shows the multivariate results for the amount of child care time.

In Table 3, Panel 1, we regressed whether the father reported engaging in each activity on the study periods and family structure, adjusting for our control variables (not presented). We can see that the odds of engaging in any child care were 20% higher during the recession, and this was similar for routine care and for play. Fathers were 24% more likely to report engaging in routine care and were 22% more likely to spend time playing with their children during the recession compared with the pre-recessionary period. None of the coefficients for the jobless recovery and the recovery period differed from the pre-recession period. There appears to be a clear peak in reporting child care in the recession years and no long-term trend.

Family structure was also significantly linked to reporting time spent in primary child care. Fathers were 30% less likely to report engaging in primary child care, including routine care, management and teaching, when they were the sole earner of a couple. Fathers were 113% more likely to report some primary child care when their partner was employed but they were not, compared with fathers in dual-earner couples and were more likely to report all aspects of care: routine child care, play, management, and teaching. Nonemployed fathers with nonemployed spouses were 43% more likely to report engaging in child care activities, including routine care and teaching but not play or management. Single fathers who were sole caregivers and providers were 23% more likely to report time in child care, in general, than fathers in dual earner couples; in particular, they were more likely to report time spent with their children in routine care, management, and teaching activities, but not play.

In Panel 2 of Table 3, interactions between the study periods and the separate family structure categories in their effects on engagement in/time in primary child care activities were added. Only one significant interaction was significant: single fathers were significantly more likely to report spending time playing with their child during the recession than in the pre-recession period.

In Table 4, Panel 1 we regressed on the study years, family structure, and controls the amount of time spent in child care activities, among those who reported some primary child care time. Fathers did not spend additional time in child care during the recession compared with the pre-recession period. However, there was a long term positive trend in child care time; fathers spent an additional 9.8 minutes in child care time in the recovery compared with the pre-recession period ($.98 \times 10$). There were time trends in both play and management time. Fathers spent more time in play (10.7 minutes) and in management activities (4.6 minutes) in the recovery compared with pre-recession years.

There were also significant family structure differences in child care time. Fathers in male earner couple families spent 7.1 fewer minutes overall in primary child care than fathers in dual career couples, a small difference given the major differences in division of labor between these two family types. The largest differences in fathers' contributions were for

nonemployed men compared to employed men with employed partners. Fathers in female earner couples spent almost 55 additional minutes in child care compared with fathers in dual earner couples. This large positive difference held for routine care, play, management, and teaching. Fathers in no earner families spent almost 40 more minutes in child care than did fathers in dual career families, and this positive difference also held for routine care and management but not play or teaching. Finally, single fathers spent 18 more minutes per week in primary child care than fathers in dual earner couples. No other differences in child care time were significant for them.

Panel 2 of Table 4 includes interactions between the recessionary period and family structure. None of the interactions was statistically significant.

Men's Unemployment Rate: A Sensitivity Test

We also tested whether the rate of men's unemployment was associated with fathers' child care engagement and child care time. Appendix table 1 shows the proportion engaged in child care, the amount of time, and the male unemployment rate for each year from 2003 to 2013. We see that unemployment lagged behind economic contraction; male unemployment peaked in 2009, when the official recession was ending, and continued at its height into 2010, before declining. When we regressed father engagement and father time on unemployment, family structure and the control variables, the results for family structure were similar to the results presented above, though a bit weaker (results not shown). Although the overall report of whether fathers engaged at all in primary child care did not quite reach statistical significance, there was a significant positive association between the unemployment rate and whether fathers were engaged in play and in teaching. There was also a significant positive association of the unemployment rate with men's total primary child care time, particularly play. These results are consistent with the findings based upon years grouped by economic conditions. There were only 2 interactions of the unemployment rate with family structure in their influence on father's engagement in child care or amount of child care time, and those were only for couples with no earners, a small group.

Discussion

Complementing a recent report examining father involvement in the primary care of children in the U.S. over the decade of the 2000s (Parker & Wang, 2013), we found that 1) significant increases in father involvement continued to occur; 2) the recession was associated with increased fathers' reports of spending time in primary care of their children; 3) increases that occurred were concentrated in routine care and management rather than play; 4) fathers in female earner or no-earner families engaged in substantially more child care activities and spent more time in them than men in dual earner couples; and 5) single fathers' reported time in primary care was greater during the recession than before it, whereas the effect of family structure did not differ in the recession and pre-recession periods for two-parent families.

Our first hypothesis was that, although fathers tend to delegate child care to mothers when the latter are not employed, when fathers have time because mothers are employed whereas he is not, fathers will be more likely to engage. No support for the theory of gender display

was found because fathers in no-earner families also spent more time in primary care than did fathers in dual career families. Unemployed fathers were more likely to report spending time in primary child care activities than fathers in dual earner families and spent substantially more time in such activities. Although they were less likely to report child care time, male breadwinners who reported such time reported spending only slightly less time in child care activities than dual career fathers. Not surprisingly, the largest differences were in routine care and management. Single custodial fathers were more likely to report primary child care and reported spending more time than fathers in dual-earner couples. Furthermore, this greater involvement held for routine care, management, and teaching, and did not hold for play, which had historically been fathers' principle domain.

Hypothesis 2 was that fathers have increased their engagement in child care by being more likely to report engaging in child care and by spending more time in it at the end of the 2000s than at the beginning. This hypothesis was supported. Fathers spent more time in primary child care in the post-recession recovery period than in the pre-recessionary period. There was no difference in whether or not they reported child care activities, but the amount of time was greater at the end of the decade than at the beginning. Fathers who reported primary care reported spending 10 additional minutes engaging in child care in the recent recovery compared with all of the prerecession years. Although this may seem relatively small, it is a meaningful continuation of trends in father involvement that had been occurring over the previous decades. Notably, this analysis controls for a variety of other factors that influence father involvement, particularly family structure, but also income, race/ethnicity, age, education, and sleep time.

Our third hypothesis, that fathers will be more likely to be engaged in routine physical care and management at the end of the 2000s than at the beginning, was supported. We were interested in whether men continued to specialize in play and discretionary activities with children as previous research had documented. In contrast to the early 2000s, this study found, notably, that today's fathers report greater involvement not only in play, but also in routine care. Individual fathers who engaged in primary child care were more likely to report spending more time in play and management in the post-recession recovery compared to the prerecession period. This suggests that fathers may be moving into more of a coparenting role (Palkovitz, Fagan & Hull, 2013). They were not more likely to spend time in routine care, however, suggesting that there remains a substantial gap between mother and father care of children.

Hypothesis 4, that fathers would be more likely to report time with children during the recessionary period, was supported. Fathers were much more likely to report any primary child care, routine care, and play during the recession than prior to the recession. They did not, however, report more time spent in primary child care during the recession.

Hypothesis 5, that there would be an interaction such that single fathers would be more likely to be involved in child care during the recession was supported. Prior to the recession single fathers were less likely to report time playing with a child. During the recession they were much more likely to report time spent playing with children.

Summary and conclusions

Over the decade, two events occurred: an increase in unemployed men due to the Great Recession and an increase in the proportion of men heading single father families. Both have increased the *availability* of men to provide care for their children. However, it also appears that there have been changes in men's *willingness* to become equal partners in rearing children. The greatest differences in participation were among unemployed men, who contributed 40 to 55 additional minutes caring for children compared to men in dual career families. The size of the difference suggests that gender display is no longer a major factor in men's decisions regarding time with their children. This is consistent with other research demonstrating improved attitudes towards fathering and that positive attitudes towards fathering are associated with increased involvement of fathers with children in all family types (Hofferth, Pleck, et al., 2013).

Our results demonstrate that any overall increase in fathers' time over the past decade results from more fathers who engage in child care spending more time in it than fathers being more likely to report engaging in child care. This study did not examine time fathers may be caring for children while doing a separate primary activity or the total time fathers spend in the company of their children. Additionally, there may be differences in how fathers and mothers report the same activities – whether they are reported as primary child care or whether they are reported as a secondary activity or in the company of a child (Pacholok & Gauthier, 2010). For example, half of single fathers did not report caring for children as a main activity. This may be due to the fact that about one-fifth of single fathers were living with a parent, an adult relative, or a roommate who could provide care for children. Selecting the three-quarters of single fathers living only with their children in 2003 and 2012, 64% reported providing primary care to their children. Of a comparable sample of single mothers from the same survey years, 70% reported providing primary care to children. This may represent a difference in labeling of primary activities by men and by women. Examination is needed of the time men are with children but the time is not reported as primary care. Secondary care time is available in the ATUS but was not included in the present study. As fathers become more involved, it is likely that subtle differences in reporting may decline and fathers' and mothers' primary child care reports will converge. Future research expanding the types of care in which fathers engage and more closely linking them to both paternal and maternal employment opportunities is needed.

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Table 1

Weighted Means and Standard Deviations for Variables in the ATUS

Variable	<i>M</i>	<i>SD</i>	Range
Family structure			
Dual earner couple	0.55		0 – 1
Male earner couple	0.30		0 – 1
Female earner couple	0.06		0 – 1
Neither employed couple	0.03		0 – 1
Single father (no spouse/partner)	0.06		0 – 1
Recessionary effect			
Pre-recession	0.44		0 – 1
Recession	0.14		0 – 1
Jobless recovery	0.14		0 – 1
Recovery	0.29		0 – 1
Age	39.49	8.23	18 – 64
Education in years	13.63	3.15	0 – 19
Family income			
Lowest quintile	0.10		0 – 1
Second quintile	0.18		0 – 1
Third quintile	0.19		0 – 1
Fourth quintile	0.28		0 – 1
Highest quintile	0.25		0 – 1
Race/ethnicity			
White	0.66		0 – 1
Black	0.08		0 – 1
Asian/Pacific islander	0.05		0 – 1
Hispanic	0.20		0 – 1
Other	0.02		0 – 1
Age of the youngest child	6.71	5.05	0 – 17
Number of children < age 18	1.90	0.92	1 – 10
Diary day			
Weekends	0.29		0 – 1
Sleep at night (8pm-4am; minute)	313.30	95.63	0 – 870
<i>N</i>		20,609	

Note: ATUS = American Time Use Survey.

Table 2a
Percentage of Fathers Reporting Each Activity and Average Time Spent in Activity by Those Who Engaged in it ($N = 20,609$)

Recessionary effect	Total child care					Routine Care					Play		
	%	M	SD	Median		%	M	SD	Median	%	M	SD	Median
Pre-recession	55	1:46	1:49	1:15	35	1:00	1:14	0:37	16	1:38	1:27	1:14	
Recession	59*	1:56*	1:53	1:25	40*	1:02	1:11	0:35	19*	1:45	1:36	1:10	
Jobless recovery	56	1:52	1:53	1:22	37	0:58	1:11	0:35	18	1:46	1:43	1:20	
Recovery	56	1:58*	1:55	1:25	37	1:00	1:09	0:35	17	1:49*	1:40	1:30	
Recessionary effect	Management					Teaching							
	%	M	SD	Median		%	M	SD	Median				
Pre-recession	25	0:55	1:14	0:35	16	0:47	0:46	0:30					
Recession	27	0:58	1:17	0:36	17	0:47	0:49	0:30					
Jobless recovery	26	0:54	1:03	0:37	18*	0:44	0:48	0:30					
Recovery	27*	1:01*	1:20	0:40	18*	0:50	0:44	0:35					

Note: Time is reported in Hours:Minutes. The comparison category for all significance tests was pre-recession.

* $p < .05$.

Table 2b
Percentage of Fathers Reporting Each Activity and Average Time Spent in Activity by Those Who Engaged in it by Family Structure

Family structure	Total child care				Routine Care				Play			
	%	M	SD	Median	%	M	SD	Median	%	M	SD	Median
Dual earner couple	57	1:47	1:48	1:15	37	0:57	1:12	0:35	16	1:40	1:31	1:15
Male earner couple	53*	1:47	1:50	1:15	35*	0:57	1:06	0:30	20*	1:43	1:32	1:15
Female earner couple	67*	2:35*	2:19	2:00	47*	1:25*	1:39	1:00	18	2:10 *	2:00	1:40
Neither employed couple	58	2:29*	2:08	1:51	39	1:25*	1:31	0:50	19	1:57	1:48	1:30
Single father	51*	1:47	1:49	1:15	32*	0:55	1:01	0:30	11*	1:43	1:42	1:00

Family structure	Management				Teaching			
	%	M	SD	Median	%	M	SD	Median
Dual earner couple	29	0:56	1:16	0:35	17	0:46	0:42	0:30
Male earner couple	18*	0:56	1:14	0:35	15*	0:44	0:46	0:30
Female earner couple	34*	1:12*	1:26	0:45	26*	0:58*	0:53	0:45
Neither employed couple	26	1:13*	1:06	0:52	19	0:57	0:48	0:40
Single father	32	0:50	0:56	0:35	18	0:52	1:02	0:30

Note: Time is reported in Hours:Minutes. The reference group for all significance tests was dual earner couple.

Table 3
Logistic Regression Models Predicting Whether Fathers Reported Time Spent in Child Care (N = 20,609)

Variable	Total child care			Routine care			Play			Management			Teaching		
	OR	95% CI		OR	95% CI		OR	95% CI		OR	95% CI		OR	95% CI	
Panel 1															
Recessionary effect ^a															
Recession	1.20**	1.06–1.35		1.24***	1.09–1.40		1.22*	1.05–1.43		1.11	0.98–1.26		1.08	0.94–1.24	
Jobless recovery	1.05	0.94–1.17		1.07	0.95–1.21		1.15	0.99–1.32		1.05	0.93–1.18		1.13	0.99–1.30	
Recovery	1.06	0.97–1.17		1.10	0.99–1.22		1.11	0.99–1.24		1.07	0.97–1.19		1.08	0.96–1.21	
Family structure ^b															
Male earner couple	0.70***	0.64–0.77		0.75***	0.66–0.80		1.01	0.91–1.13		0.53***	0.47–0.58		0.82***	0.74–0.92	
Female earner couple	2.13***	1.77–2.56		2.52***	2.08–3.06		1.48***	1.19–1.84		1.45***	1.21–1.73		2.09***	1.71–2.55	
Neither employed couple	1.43**	1.12–1.83		1.65***	1.24–2.18		1.33	0.99–1.79		1.03	0.79–1.36		1.40*	1.03–1.91	
Single fathers	1.23*	1.03–1.47		1.54***	1.26–1.88		0.91	0.70–1.18		1.52***	1.29–1.78		1.61***	1.32–1.96	
df	21		21	21		21	21		21	21		21	21		21
Wald chi-square	1837.27***		2486.63***			1494.98***				798.34***			718.46***		
Panel 2															
Recessionary effect ^a															
Recession	1.29***	1.11–1.49		1.17*	1.01–1.36		1.25*	1.03–1.52		1.16	0.99–1.36		1.06	0.89–1.26	
Jobless recovery	1.05	0.93–1.17		1.07	0.95–1.21		1.15	0.99–1.32		1.05	0.93–1.18		1.13	0.99–1.30	
Recovery	1.06	0.97–1.17		1.10	0.99–1.22		1.11	0.99–1.24		1.07	0.97–1.18		1.08	0.96–1.21	
Family structure ^b															
Male earner couple	0.73***	0.66–0.80		0.72***	0.65–0.80		1.03	0.92–1.15		0.54***	0.49–0.61		0.82**	0.73–0.92	
Female earner couple	2.13***	1.75–2.59		2.45***	1.99–3.01		1.54***	1.23–1.94		1.45***	1.20–1.75		2.00***	1.62–2.48	
Neither employed couple	1.46**	1.12–1.91		1.67**	1.22–2.28		1.35	0.98–1.86		1.09	0.82–1.45		1.47*	1.06–2.04	
Single fathers	1.21	0.99–1.47		1.46***	1.17–1.82		0.81	0.60–1.08		1.45***	1.22–1.73		1.58***	1.28–1.96	
Interactions															
Recession × Male earner couple	0.79	0.61–1.03		1.07	0.81–1.42		0.90	0.64–1.26		0.80	0.60–1.06		0.99	0.73–1.36	

Variable	Total child care		Routine care		Play		Management		Teaching	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Recession × Female earner couple	1.01	0.59–1.73	1.26	0.72–2.20	0.72	0.37–1.44	0.98	0.57–1.67	1.38	0.76–2.49
Recession × Neither employed couple	0.85	0.43–1.65	0.90	0.49–1.68	0.90	0.42–1.92	0.67	0.30–1.52	0.67	0.30–1.53
Recession × Single fathers	1.15	0.74–1.77	1.44	0.91–2.27	1.98 [*]	1.12–3.50	1.33	0.87–2.02	1.13	0.70–1.84
<i>df</i>		25		25		25		25		25
Wald chi-square		1850.47 ^{***}		2489.02 ^{***}		1494.65 ^{***}		807.21 ^{***}		720.07 ^{***}

Note: Control variables were included but not presented. The model predicts the probability of spending time in child care (at least one minute) rather than not spending time in child care.

^{*} $p < .05$.

^{**} $p < .01$.

^{***} $p < .001$.

^a Referent is pre-recession period.

^b Referent is dual earner couple.

Ordinary Least Square Regression Models Predicting the Amount of Time Spent in Child Care among Those Who Participated in it

Table 4

Variable	Total child care			Routine care			Play			Management			Teaching		
	b	S.E.		b	S.E.		b	S.E.		b	S.E.		b	S.E.	
Panel 1															
Recessionary effect ^a															
Recession	0.86	0.44		0.15	0.40		0.62	0.81		0.13	0.30		0.11	0.27	
Jobless recovery	0.28	0.35		-0.26	0.37		0.92	0.51		-0.17	0.27		-0.25	0.24	
Recovery	0.98***	0.29		-0.19	0.27		1.07**	0.41		0.46*	0.23		0.27	0.21	
Family structure ^b															
Male earner couple	-0.71*	0.30		-0.56	0.30		-0.05	0.46		0.00	0.24		-0.18	0.18	
Female earner couple	5.49***	0.69		3.05***	0.73		2.92**	1.01		1.87***	0.48		0.96*	0.38	
Neither employed couple	3.98***	0.97		2.62**	0.81		0.64	1.23		2.24**	0.69		0.73	0.67	
Single fathers	1.75***	0.52		0.86	0.53		-0.02	0.85		-0.16	0.30		0.19	0.40	
df	21			21			21			21			21		
F	35.45***			20.74***			9.03***			10.32***			5.60***		
Adj. R-Square	0.08			0.07			0.05			0.05			0.04		
Panel 2															
Recessionary effect ^a															
Recession	0.37	0.42		-0.33	0.41		0.30	0.61		0.17	0.39		0.14	0.40	
Jobless recovery	0.28	0.35		-0.26	0.37		0.91	0.51		-0.18	0.27		-0.25	0.24	
Recovery	0.97***	0.29		-0.19	0.27		1.07**	0.41		0.46*	0.23		0.27	0.21	
Family structure ^b															
Male earner couple	-0.90**	0.29		-0.71*	0.30		-0.19	0.40		-0.05	0.25		-0.17	0.19	
Female earner couple	5.33***	0.75		3.00***	0.80		2.61*	1.10		1.87***	0.52		0.88*	0.39	
Neither employed couple	4.38***	1.07		2.77**	0.90		0.43	1.30		2.38**	0.74		0.92	0.74	
Single fathers	1.40**	0.50		0.37	0.42		0.61	1.01		-0.01	0.33		0.22	0.45	
Interactions															

Variable	Total child care		Routine care		Play		Management		Teaching	
	b	S.E.	b	S.E.	b	S.E.	b	S.E.	b	S.E.
Recession × Male earner couple	1.25	1.16	0.97	0.97	0.85	2.06	0.38	0.73	-0.04	0.52
Recession × Female earner couple	1.12	1.82	0.32	1.88	2.60	2.72	0.01	1.28	0.57	1.20
Recession × Neither employed couple	-2.99	2.34	-1.10	2.08	1.58	3.73	-1.24	1.90	-1.79	1.20
Recession × Single fathers	2.27	1.76	2.97	2.03	-2.70	1.63	-0.86	0.64	-0.20	0.84
<i>df</i>	25		25		25		25		25	
F	29.96***		17.58***		8.06***		8.94***		4.74***	
<i>Adj. R-Square</i>	0.08		0.07		0.05		0.05		0.04	
<i>n</i>	11,739		7,894		3,909		5,006		3,420	

Note: Control variables were included but not presented and dependent variables were divided by 10 minutes.

* $p < .05$.
** $p < .01$.
*** $p < .001$.
^a Referent is pre-recession period.
^b Referent is dual earner couple.

Percentage of Fathers Reporting Each Activity, Average Time Spent in Activity by Those Who Engaged in it, and Men's Unemployment Rate (N = 20,609)

Appendix Table 1

Year	Total child care				Routine Care				Play			
	%	M	SD	Median	%	M	SD	Median	%	M	SD	Median
2003	53.22	1:48	1:51	1:15	33.13	1:02	1:14	0:40	15.38	1:39	1:28	1:02
2004	54.85	1:45	1:46	1:15	35.50	0:59	1:15	0:38	15.90	1:35	1:11	1:30
2005	54.23	1:48	1:48	1:15	35.78	1:02	1:25	0:37	15.72	1:41	1:36	1:10
2006	54.17	1:44	1:49	1:09	34.59	0:55	1:03	0:35	15.98	1:36	1:31	1:00
2007	56.74	1:45	1:46	1:15	36.91	0:59	1:10	0:40	18.66	1:38	1:25	1:14
2008	59.52	1:50	1:46	1:16	40.68	0:59	1:09	0:30	18.70	1:44	1:26	1:10
2009	56.96	1:59	1:59	1:30	36.43	1:06	1:21	0:36	18.61	1:48	1:44	1:14
2010	56.46	1:50	1:53	1:20	37.32	0:54	1:02	0:35	18.06	1:45	1:47	1:30
2011	54.72	1:53	1:53	1:19	34.36	0:56	1:12	0:30	16.58	1:46	1:31	1:30
2012	58.03	1:59	1:53	1:25	37.44	1:04	1:09	0:35	19.22	1:48	1:35	1:30
2013	55.46	1:59	1:57	1:30	38.14	0:59	1:06	0:35	16.29	1:51	1:53	1:20

Year	Management				Teaching				Men's unemployment rate (aged 16 or older)			
	%	M	SD	Median	%	M	SD	Median	%	M	SD	Median
2003	25.49	0:56	1:23	0:35	15.25	0:47	0:50	0:30				6.3
2004	25.94	0:53	1:09	0:36	15.23	0:50	0:48	0:30				5.6
2005	23.88	0:54	1:16	0:35	14.36	0:49	0:40	0:30				5.1
2006	24.48	0:54	1:14	0:35	17.78	0:47	0:48	0:30				4.6
2007	23.86	1:06	1:19	0:40	15.79	0:39	0:39	0:30				4.7
2008	26.83	0:54	1:11	0:35	17.53	0:45	0:38	0:30				6.2
2009	26.41	0:59	1:13	0:40	17.97	0:45	0:46	0:30				10.3
2010	27.21	0:54	1:05	0:35	18.08	0:44	0:55	0:30				10.5
2011	25.99	1:02	1:28	0:40	18.15	0:48	0:39	0:35				9.4
2012	26.30	1:03	1:15	0:37	16.50	0:49	0:42	0:33				8.2
2013	28.20	0:56	1:14	0:40	18.08	0:51	0:48	0:40				7.6

Note: Time is reported in Hours:Minutes.