HOW PARENTS FARE: MOTHERS' AND FATHERS' SUBJECTIVE WELL-BEING IN TIME WITH CHILDREN*

Kelly Musick, Cornell University

Ann Meier, University of Minnesota

Sarah Flood, University of Minnesota

October 6, 2014

ABSTRACT. The shift towards more time-intensive and child-centered parenting in the U.S. is widely assumed to be positively linked to healthy child development, but implications for adult well-being are less clear. We go beyond prior work on parenthood and well-being to assess the multidimensional nature of mothers' and fathers' subjective well-being in time with children. Our emphasis on parenting (activities) as opposed to parenthood (status) draws attention to how the nature and context of time use contribute to differences in parents' happiness, meaning, sadness, stress, and fatigue. We posit that time with children may elicit more positive and negative feelings than time without children, particularly among mothers, whose greater investments in childrearing may be associated with more strain but also more meaning. Relying on nationally representative time diary data from the 2010 well-being module of the American Time Use Survey (N = 23,282), we find that parents consistently report more positive affect in time with children than without. Mothers report less happiness, more stress, and greater fatigue (but not more meaning) in time with children than fathers, and their greater fatigue is not explained by mediating factors such as the quality and quantity of sleep and leisure, activity type, or solo parenting.

Key words: parenting, subjective well-being, gendered family roles, time use

* Direct correspondence to: Kelly Musick, 254 MVR, Cornell University, Ithaca, NY 14853; phone 607-255-6067; email musick@cornell.edu. Earlier versions of this paper were presented at the 2013 Annual Meeting of the Population Association of America and the Maryland Population Research Center (MPRC). We thank MPRC seminar participants for many useful comments and suggestions, as well as Rachel Dunifon, Liana Sayer, and Kammi Schmeer for feedback on earlier drafts. We gratefully acknowledge seed grants from the Cornell Population Center and Cornell's Institute for Social Sciences and support from the Minnesota Population Center (5R24HD041023) and the American Time Use Survey Data Extract Builder project (5R01HD053654), funded through grants from the Eunice Kennedy Shriver National Institute for Child Health and Human Development (NICHD).

HOW PARENTS FARE: MOTHERS' AND FATHERS' SUBJECTIVE WELL-BEING IN TIME WITH CHILDREN

Growing evidence points to a cultural shift toward more time-intensive and child-centered parenting in the U.S. (Hays 1996; Lareau 2002), a trend widely assumed to be linked to healthy child development (Kalil, Ryan, and Corey 2012; Lareau 2003, 2011). Implications of time with children for adult well-being are less clear. Most adults report strong childbearing desires and regard parenthood as central to a meaningful life (Hansen 2012; Morgan and King 2001), yet parenting comes with many stressors, particularly in the U.S. where there is little public support for childrearing (Glass, Simon, and Andersson 2013). The bulk of evidence on parenthood and well-being suggests that having children in the home is associated with detriments to well-being (Aassve, Goisis, and Sironi 2012; Kohler, Behrman, and Skytthe 2005; Simon 2008; Stanca 2012; Hansen 2012; but see Herbst and Ifcher 2012 for a recent departure), especially among women (Bird 1997; Hansen 2012; Nomaguchi and Milkie 2003). Limited studies on time in activities with children yield mixed findings on how mothers and fathers experience parenting relative to other uses of their time (Kahneman et al. 2004; Nelson et al. 2013; Wang 2013; Offer 2014).

Well-being in parenting matters for several reasons. Most directly, there is a robust relationship between own subjective well-being (especially stress) and various dimensions of health (for a review, see Thoits 2010). Parents' emotional states can further affect children's health and well-being (Kiernan and Huerta 2008; Meadows, McLanahan, and Brooks-Gunn 2007), as well as the quality of parent-child relationships, which are in turn associated with positive child outcomes (Maccoby 1980; Musick and Meier 2012). More generally, the subjective well-being of parents speaks to how the demands of caring for children are borne, for

example, the ways that care is allocated and experienced within households (e.g., Craig and Mullan 2011; Raley, Bianchi, and Wang 2012). Focusing on well-being specifically tied to activities with children draws attention to how differences in the nature of time with children—the kinds of activities parents engage in, who else is present, and other contextual factors that spill into parent-child interactions—play into the joys and strains of parenting, and do so differentially by gender.

The well-publicized popular press title "All Joy and No Fun" (Senior 2010, 2014) conveys the basic idea that parents may experience great meaning and joy in time spent with children combined with frustration, worry, and boredom. The intensity of both positive and negative feelings in parenting may be especially true of mothers, who are more involved in all aspects of parenting (Musick and Bumpass 1999; Sayer, Bianchi, and Robinson 2004), have lower quality downtime to buffer parental strain (Bittman and Wajcman 2000; Craig and Mullan 2013; Burgard and Ailshire 2013; Mattingly and Bianchi 2003), and have more at stake in terms of identity and self-fulfillment (Blair-Loy 2001; Simon 1992). In this paper, we examine the multidimensional nature of mothers' and fathers' subjective well-being in parenting, conceptualized broadly as time with children. Our analysis highlights the link between well-being and parenting (activities) as opposed to parenthood (status), drawing from assessments of momentary well-being in three randomly selected activities throughout the day. Substantively, data on well-being tied to specific activities allows for a detailed investigation of the contextual features that play into men's and women's experiences in parenting. Methodologically, within-person variation in activities throughout the day offers leverage in teasing out the effects of being a parent from selection into parenthood (Kahneman et al. 2004).

We use nationally representative time diary data from the 2010 well-being module of the American Time Use Survey (WB-ATUS). We bridge to prior work on parenthood and well-being, first examining differences between men and women with and without children in the home and then differentiating between parents in activities with and without their children present. We assess differences between mothers and fathers in the association between subjective well-being and parenting and the extent to which these can be traced to the nature of their time with children, including the kinds of activities mothers and fathers engage in with children, whether they are parenting on their own, and the quality of their restorative time in sleep and in leisure.

BACKGROUND

Prior Research on Parenthood and Well-Being

Much prior research finds that men and women with children in the home report lower psychological well-being than those without children (Evenson and Simon 2005; Hansen 2012; McLanahan and Adams 1987; Stanca 2012). Mothers in particular report higher levels of psychological distress, anxiety, and anger (Bird 1997; Mirowsky and Ross 2002; Simon and Nath 2004), which may be traced to their disproportionate share of the social and economic costs of parenting (Bird 1997; Mattingly and Sayer 2006; Munch, McPherson, and Smith-Lovin 1997; Nomaguchi and Milkie 2003). Children require financial, emotional, and time commitments, all of which may strain marital relationships (Lawrence et al. 2008; Tweng, Campbell, and Foster 2003) and generate conflict in managing work and family (Craig 2007; Gauthier, Smeeding, and Furstenberg 2004; Kimmel and Connelly 2007; Sayer 2005). Parenting can be difficult, draining, and tense, with defiance and boundary-testing a normal part of child development (Daly 2001). It

can also feel unrewarding; Blair-Loy (2003), for example, noted discontent in parents' casting of their own time and happiness as secondary to their children's.

Attention to the broader costs *and rewards* of parenthood has begun to paint a more complex picture of well-being among parents. The parenthood well-being penalty has been found to vary by whether parents are married or cohabiting (Nomaguchi and Milkie 2003; Woo and Raley 2005), number of children (Kohler et al. 2005), parental age (Margolis and Myrskyla 2011; Myrskyla and Margolis 2014), historical period (Herbst and Ifcher 2012), and cultural and policy context (Aassve et al. 2012; Deaton and Stone 2013; Glass et al. 2013). It also depends on the particular indicator of well-being that is considered. Nomaguchi and Milkie (2003) found that unmarried parents were more depressed but also more socially integrated than men and women without children. Deaton and Stone (2013) showed that whereas global assessments of life satisfaction were consistently lower among parents, parents' reports of daily affect were mixed, in particular, parents reported more positive (joy) and negative (stress) emotions than men and women without children in the home.

Hansen (2012) speculated that the body of literature demonstrating a negative relationship between parenthood and well-being is mis-focused on global evaluations of satisfaction and happiness. He suggested that the benefits of having children may come in the form of other affective rewards with positive valence, especially meaning. A set of studies dating back to Hoffman and Hoffman (1973) cited such rewards as stimulation, novelty, fun, expression of self, creativity, accomplishment, competence, status from children's achievements, primary group ties and affiliation, and power or influence over others. Others have added predictability or uncertainty reduction (Friedman, Hechter, and Kanazawa 1994; Liefbroer 2005) and generativity or supporting and guiding the next generation (Hansen 2012). Finally, ideas rooted in

evolutionary psychology point to a positive relationship between parenting and fulfillment (Hrdy 1999; Morgan 2003; Morgan and King 2001). In a study of Danish identical twins, Kohler, Behrman, and Skytthe (2005) find evidence in support of a biological predisposition, especially among women, that results in an up-tick in happiness associated with the first child. They conclude that "…the first child seems to provide a vital part of women's fulfillment in life…" (p. 436).

The weight of the empirical evidence shows detriments in well-being among parents—and particularly mothers—although long-standing arguments suggest potential rewards of parenthood, and recent studies have provided evidence for indicators such as social cohesion, joy, and sense of security. A multidimensional measurement strategy is critical for capturing the highs and lows of parenthood. Recent reviews (Kapteyn et al. 2013; Krueger et al. 2009; OECD 2013; Stone and Mackie 2013) point in particular to the importance of examining positive and negative dimensions (which are not always inversely related), as well as an indicator of meaning or purpose.

Parenting versus Parenthood

Assessments of parental well-being are sensitive not only to the dimension of well-being that is measured, but also to its reference period. The bulk of the literature reviewed above examined the link between parenthood and global assessments of well-being (e.g., "All things considered, how satisfied are you with your life as a whole these days?" [Stanca 2012]; "Taking all things together, how happy would you say you are?" [Aasve et al. 2012; Glass et al. 2013]). Momentary assessments tied to specific activities tend to be more reliable, for example, less sensitive to questions that precede them in the survey (Kahneman and Kreuger 2006; National Research Council 2012). They may also mitigate threats to validity due to adaptation, or the tendency for

people to eventually adjust their subjective well-being to changes in life circumstances (e.g., Lucas et al. 2003). Further, according to Kahneman and colleagues (2004, p. 22): "Measures that are collected in real time or are linked to diaries of actual events have the advantage of minimizing the filter of memory and of connecting well-being to something that matters a great deal and can be varied—how people spend their time." Tied to activities with children, this measurement strategy taps well-being in parenting.

Studies on momentary well-being in activities with children have yielded mixed results on parenting. Kahneman and colleagues' much cited 2004 study (e.g., Senior 2014) was based on a sample of 909 employed mothers in Texas. Using the day reconstruction method (DRM), which combines a time diary with questions about feelings in specific activities throughout the day, they found that "taking care of my children" ranked poorly on mean positive affect relative to other activities—below shopping and preparing food and barely above housework (Table 1). Using a similar approach applied to a convenience sample of 186 parents, Nelson and colleagues (2013) found, by contrast, greater positive emotion and meaning among parents—especially fathers—when engaged in childcare compared to other activities. A recent Pew report (Wang 2013) based on tabulations from the WB-ATUS showed that parents assessed childcare as more meaningful than paid work, nonmarket work, and leisure (consistent with Nelson et al. 2013), but they also scored it as more tiring.

Offer (2014) examined a broader set of activities with children among 693 advantaged, dual-earner parents who participated in an experience sampling method (in which respondents respond to beeps throughout the day by recording details of what they were doing and how they were feeling). Relative to time away from children, Offer found greater positive affect in shared meals and leisure with children and more stress (but only among mothers) in basic childcare.

Findings based on experience sampling and DRM show that mothers fare worse in child-related activities than fathers, although research (particularly based on broadly representative samples) is limited, and questions remain open about how the nature of time with children plays into well-being in parenting (e.g., Campos et al. 2013; Larson, Richard, and Perry-Jenkins 1994; see Nelson, Kushlev, and Lyubomirsky 2014 for a review). A growing literature on emotion emphasizes the importance of situational contexts in shaping emotional responses (Simon and Nath 2004). Whereas global assessments of well-being are less responsive to the specifics of context, subjective well-being in activities with children allows for a more detailed exploration of the factors that play into the high and lows of parenting.

Competing Ideologies

Scholarship and commentary points to an intensification of the role of parents over the past few decades, especially mothers (Hays 1996; Lareau 2003; Sayer et al. 2004). Milkie and colleagues (2010) argue that time with children is now a "critical barometer" of model parenting. Further, the quality of parental time or types of activities with children signal parents' active role in their child's development (Garey 1999; Kalil et al. 2012; Lareau 2003). Even with changes in families that compromise time with children (e.g., more single parents, more working mothers), today's parents are spending more time with children and especially in direct engagement with children (Bianchi 2000; Sayer et al. 2004).

The salience of the parental identity for women in particular may make them more protective of the role and vulnerable to threats to their ability to enact it, such as market work (Blair-Loy 2001; Sayer 2005; Simon 1992). Alongside more demanding expectations of motherhood, mothers' labor force participation rates have increased nearly 60 percent since 1965 (from 45 to 78 percent), and their average hours of market work more than tripled in this same

time frame (Bianchi 2011). Despite an increasing "provider" role for mothers, the "good mother" role still carries expectations of primary caregiving. Conflicting ideologies of the good mother and good worker create tension and feelings of inadequacy (Correll, Benard, and Paik 2007; Blair-Loy 2003; Daly 2001; Rizzo, Schiffrin, and Liss 2013; Simon 1995). Indeed, most working mothers report feeling conflict between family and work (Parker and Wang 2013), and their perceived time deficits with children are more closely tied to their well-being than are fathers' (Simon 1995; Nomaguchi, Milkie, and Bianchi 2005).

The fatherhood role has long been viewed as intertwined—even synonymous—with the provider role (Marsiglio and Roy 2012; Taylor et al. 2013). There has nonetheless been a shift in recent decades towards greater father involvement and its importance for men's fulfillment (Harrington, Van Deusen, and Humberd 2011; Milkie and Denny 2014). In contrast to the inflexibility of the good mother role, however, multiple models of good fathering have emerged emphasizing to varying degrees fathers' contributions as a breadwinners and caretakers (Kaufman 2013). The existence of multiple acceptable models may make fathers less susceptible to role strain and difficult-to-meet social expectations and leave more room for enjoyment. With one acceptable good mother model—committed, ever-available, deeply involved—mothers may more consistently derive meaning from parenting than fathers, but they may also experience more stress. Indeed, while fathers increasingly report work-family conflict, mothers still outpace them in this feeling of strain (Parker and Wang 2013).

Gendered Time with Children

Beyond gendered ideologies of parenting, differences in the nature of men's and women's time with children may factor into their emotional responses to parenting. The gap in mothers' and fathers' time with children has been closing, but women still tend to be the primary parent.

Recent estimates show that married mothers' time in primary childcare is about 2 times higher, and overall time with children 1.5 times higher, than married fathers' time (Bianchi 2000; Parker and Wang 2013). Women do more of the day-to-day, time-inflexible basic care and management tasks related to childcare, and they spend a smaller share of their overall minutes with children in play (Sayer 2005; Sayer et al. 2004; Raley, Bianchi, and Wang 2012; Yeung et al. 2001). Bianchi (2000) related mothers' roles in the U.S. today to those of "sweepers" in soccer who do what they must to cover the goal (p. 412): "In protecting the goal, first things come first: Mothers may have the luxury of worrying about providing fun, stimulation, and educational outings for their children, but only after they can ensure that their children are clothed, well nourished, and safe."

In addition to shouldering a heavier burden of the more onerous parenting activities, women are more often the sole parent on duty (Kalil, Ryan, and Chor 2014). Alone time with children is potentially more taxing and boring (Folbre et al. 2005; Blair-Loy 2003). Fathers, even some with breadwinning spouses, tend to take on the secondary parent or "helper" role that allows for greater leeway and less responsibility (Larson et al. 1994; Latshaw and Hale 2013; Raley et al. 2012). The unequal distribution of parental responsibilities and associated strains has been linked to greater distress and anger among mothers than fathers (Bird 1997; Ross and Van Willigen 1996). At the same time, more focused time with children increases opportunities for bonding with children and capturing the achievement of important milestones (Blair-Loy and Herron 2013; Daly 2001), again suggesting that mothers may be more likely to experience both stress and meaning in parenting.

Restorative Time in Sleep and Leisure

The quantity and quality of downtime may affect parents' well-being in time with children—and gender disparities in downtime may factor into differences in mothers' and fathers' experiences

of parenting. Sleep deficits reduce cognitive function and are associated with poorer health, less enjoyment, and harsher parenting (Buxton and Marcelli 2010; Kahneman et al. 2004; Dunifon et al. 2013; Kronholm et al. 2009). A lack of free time and poor quality free time are associated with heightened time pressure and reduced well-being (Bird and Fremont 1991; Mattingly and Sayer 2006; Nomaguchi et al. 2005). Increased free time for men is more strongly associated with reduced perceptions of time strain ("feeling rushed") than it is for women, indicating that leisure may not be as restorative for women as for men (Mattingly and Bianchi 2003; Mattingly and Sayer 2006; Nomaguchi et al. 2005).

The gendered nature of combining roles may translate into less downtime from parenting and more strain in time with children among mothers. Mothers tend to be family managers, planning day-to-day schedules and leisure for all family members (e.g., Deem 1996), themselves experiencing half an hour less leisure per day than fathers (Mattingly and Bianchi 2003). Because women protect time with children by carving it out elsewhere, market work may crowd out leisure time more for women than for men (Bianchi 2000; Nomaguchi et al. 2005). Mothers multitask more often and spend more of their leisure time with children resulting in more of their leisure interrupted and "contaminated" by other activities (Bittman and Wajcman 2000; Craig and Mullan 2013; Mattingly and Bianchi 2003). Consistent with the notion that mothers' leisure time is of lower quality than fathers', Freysinger (1994) found that both parents enjoy leisure with children, but the benefit is far greater for fathers than mothers.

In contrast to the gender gap in leisure that favors men, women get just over ten minutes more sleep a day than men (Burgard and Ailshire 2013). Like leisure, however, evidence suggests that women get less high-quality, uninterrupted sleep than men (Hislop and Arber 2003; Maume, Sebastian, and Bardo 2009). Mothers respond to caregiving-related sleep interruptions

more than men (Burgard and Ailshire 2013), and they also experience sleep disruptions due to more "sentient" activity such as strategizing about family emotional management and keeping track of the to-do list (Venn et al. 2008). The quality of sleep and leisure may thus reflect the strain of primary parenting and in turn affect the quality of family interactions (Burgard and Ailshire 2013; Mattingly and Bianchi 2003).

Socio-Demographic Characteristics

Parents are different in many ways from men and women without children—ways that are in turn associated with well-being, for example, parents are more socially advantaged and more often married (for a discussion of socio-demographic differences between parents and those without children, see Deaton and Stone 2013; Herbst and Ifcher 2012). Mothers and fathers also differ in ways that may confound our understanding of gendered parenting experiences. Mothers are less likely to be married, and married parents are happier than unmarried parents (Nomaguchi and Milkie 2003). In part because mothers are more often on their own, they also have less income on average, another stress factor in parenting (Bird 1997). Our analyses account for these and other person-level characteristics that are associated with well-being, including age, race and ethnicity, education, employment status, number of children, and age of youngest child. At the activity-level, our study accounts for where the activity took place, its duration, time of day, and total time spent with children at activity initiation. As noted, we expect that life circumstances or factors that are locally salient, or that bear on the structure of the day-to-day, will most directly play into momentary well-being.

OUR STUDY

Prior research shows that parents—especially mothers—tend to report lower subjective well-being than those without children in the home, although attention to the broader costs and

rewards of parenthood has begun to uncover a more complex picture. Our review suggests that ideologies of good parenting, the nature of time with children, and the quality of downtime may all factor into well-being in parenting, and that momentary assessments may provide a better lens with which to capture variation in parenting experiences. We expect that time with children may elicit more positive and negative feelings than time without children. Further, mothers may report less positive affect, more stress, and more fatigue in time with children than fathers, but also more meaning. We further hypothesize that accounting for differences in the kinds of activities that mothers and fathers engage in with children, solo parenting, and sleep and leisure will account for much but not all of these differences. Remaining differences may reflect aspects of the motherhood identity that might be especially important to the eudaimonic (purpose-related) dimension of well-being in parenting.

We draw on the well-being module in the ATUS that includes respondent reports of momentary well-being in three randomly selected activities throughout the day. This module represents an important resource for research on health and well-being, which has to date been based largely on global assessments "divorced from measures of time use or context" (National Research Council 2012, p. 7). Our study is the first to our knowledge to use these data to examine the factors that potentially play into men's and women's subjective well-being in parenting, broadening to a nationally representative sample the sparse prior work on momentary assessments of parental well-being. We make several additional contributions to the literature. First, we bridge to past findings on parenthood and well-being by exploring differences in well-being between men and women with and without children in the home and those among parents in activities with and without children present. Second, we investigate positive, negative, and eudaimonic dimensions of well-being, allowing for both costs and rewards of parenting and the

notion that this mix may differ for men and women. Third, we assess within-person variation in activities to provide leverage in teasing out the effects of parenting from selection into parenthood—a vexing problem in studies of parental well-being. Prior work has addressed this concern by comparing well-being before and after the transition to parenthood (e.g., Nomaguchi and Milkie 2003), but estimates remain vulnerable to the anticipatory effects of planning for or becoming a parent.

Finally, we capture gender differences in time use that are potentially understated by common measurement strategies, for example, assessments of the quantity but not quality or nature of time use (Raley et al. 2012; Mattingly and Bianchi 2003). We exploit features of our diary data to examine details on activity type, the presence of others, timing, and duration, and we use a broad definition of parenting that more fully accounts for what mothers and fathers do. Studies on time with children tend to focus on childcare activities like routine care, play, teaching, and management (e.g., Kalil et al. 2012; Sayer et al. 2004) or activities that involve direct engagement with children (Bianchi 2000; Bianchi and Robinson 1997). These miss much of parents' time with older children, overlook the supervisory demands of parenting, and capture only a fraction of parents' total time with children (Folbre et al. 2005; Offer 2014). We conceive of parenting as going well beyond childcare—as happening in scattered activities as parents progress through their daily routines. Our expectation is that interactions with children ranging from brief and incidental to sustained and purposeful reflect parental mood and convey subtle aspects of tone and attentiveness that feed into the quality of parent-child relationships and ultimately child well-being (Musick and Bumpass 1999).

In what follows, we provide a descriptive account of happiness, meaning, sadness, stress, and fatigue in activities along with their various contextual features, comparing parents and those

without children, as well as mothers and fathers. We turn next to findings from random effect models, in the first step of our analysis showing how the association between subjective well-being and parenthood differs for men and women, and in the second step showing how associations differ for mothers and fathers in activities with and without their children present. We highlight differences between mothers and fathers and the extent to which they are accounted for by the nature of parenting activities and restorative time in sleep and leisure.

METHOD

Well-Being Module of the American Time Use Survey

The ATUS is a time diary study of a nationally representative sample of Americans (Hofferth, Flood, and Sobek 2013). ATUS respondents report on their activities over a 24-hour period from 4:00 a.m. of a specified day until 4:00 a.m. of the following day, indicating the type of activity, as well as where, when, and with whom it occurred.[1] Responses are recorded using Computer Assisted Telephone Interview (CATI) procedures. Activities are coded using a six-digit, three-tier coding system, and over 400 activity categories are represented by the classification. Data are collected every day of the week, including holidays, with weekends oversampled. Fifty percent of diaries are about weekend days (25% each), and fifty percent are about weekdays (10% each day).

ATUS sample members are drawn from Current Population Survey (CPS) respondents. One individual aged 15 or older per former CPS participating household is invited to participate in the ATUS during the two to five months following their exit from the CPS. The 2010 ATUS had a response rate of 57% (ATUS 2013, p. 14), and some studies have shown that respondents in the ATUS differ from non-respondents on reports of pro-social behaviors (e.g. Abraham, Helms, and Presser 2009). Those who volunteer, for example, are also more likely to respond to

surveys like the ATUS leading to inflated national estimates of volunteering. Two factors mitigate concern about this sort of non-response bias for our study. First, we consider all activities without particular attention to pro-social activities where those who engage may be over-represented among survey responders. Second, Abraham et al. (2009) find that while non-response can have a significant effect on the univariate distribution of pro-social activities, it does not appear to affect inferences about the respondent characteristics that are associated with those activities.

All ATUS respondents were eligible for participation in the 2010 well-being module, and there was minimal nonresponse (3.25%). Approximately 13,000 men and women ages 15-85 completed the well-being module, for a total of about 39,000 activities. Well-being module participants reported on how they felt in three randomly selected activities lasting at least five minutes (excluding sleeping, grooming, personal activities, and activities in which the respondent did not know or refused to report on what they were doing). As noted above, well-being assessments tied specifically to activities tend to be more reliable (Kahneman and Krueger 2006; NRC 2012) and valid (e.g., Lucas et al. 2003) than global indicators, and little difference has been found between assessments attained via 24-hour recall (as in the WB-ATUS) and those assessed in real-time via beeper methodology (Kahneman et al. 2004). Activity weights for the well-being module account for the oversample of weekends and other aspects of the ATUS sample design; they also account for differences between activities in the fraction of time in eligible activities and the probability of having an eligible activity selected (ATUS 2014, pp. 5-7). They are applied in all descriptive analyses presented below (but not multivariate models), such that average levels of affect and other activity characteristics apply to the population engaged in eligible activities.

The ATUS includes a household roster with information on co-residential children, but it does not have data on children ever born. We thus restrict our sample to the prime parenting ages in order to limit heterogeneity in comparisons of those with and without children in the household.[2] Our baseline sample includes all men and women ages 21-55 who responded to the well-being module (*N* individuals = 7,823; *N* activities = 23,282). Our age restriction excludes many young adults still in school or living with parent, as well as many older adults whose children have left the household; it excludes only 4% of men and women with a child under 18 in the household. Key analyses are limited to men and women with a child under 18 in the household (*N* individuals = 4,519; *N* activities = 13,447).

Random Effect Models

We use methods that account for the multilevel nature of our data, in which activities at level one are nested within individuals at level two (Allison 2009). Our outcomes—multiple dimensions of well-being—are scored 0-6 and treated as quantitative variables. We rely principally on random effect models (also called multilevel or mixed models in the literature, estimated using *xtreg, robust re* in Stata for quantitative response variables). The basic model can be written:

$$(1)\quad y_{ij} = \gamma_{00} + \gamma_1 X_{ij} + \gamma_2 Z_j + \upsilon_{0j}$$

for activity *i* and individual *j* where υ_{0j} is a person-specific random error term representing unobserved characteristics of individual *j* and assumed independent of *X*'s (activity-level covariates) and *Z*'s (individual-level covariates). We assess gender differences in parenthood and parenting in pooled models with gender interactions, and we control for characteristics at the individual- and activity-level that could potentially confound associations with subjective well-being.

Random effect models yield a weighted average of within- and between-level estimates, with the advantage over fixed effect models that they provide estimates for characteristics that are invariant across activities (the *Z*'s in equation 1, e.g., having a child in the household). Thus in the random effect framework, we can generate estimates for characteristics of individuals that structure the day to day, as well as the more micro-level context of daily activities, namely, what the respondent was doing and who they were with. We test the sensitivity of our main findings on parents' activities with and without their children using fixed effect models that rely solely on within-person variation (estimated using *xtreg, robust fe* in Stata). By identifying off variation at the activity level, fixed effect estimates account for any observed or unobserved differences between individuals, providing a tighter estimate of causal relationships between well-being and time with children.

Measures

Subjective well-being. Our outcome measures tap five dimensions of subjective well-being. For each of three sampled activities, ATUS respondents were asked: 1) How *happy* did you feel during this time? 2) How *sad* did you feel during this time? 3) How *stressed* did you feel during this time? 4) How *tired* did you feel during this time? 5) How *meaningful* did you consider what you were doing? For each of these questions, response options ranged from 0 (e.g., not at all happy, not sad at all) to 6 (e.g., very happy, very sad). As noted above, well-being assessments tied specifically to activities tend to be more reliable (Kahneman and Krueger 2006; NRC 2012) and valid (e.g., Lucas et al. 2003) than global indicators, and little difference has been found between assessments attained via 24-hour recall (as in the ATUS well-being module) and those assessed in real-time via beeper methodology (Kahneman et al. 2004). Table 1 shows mean

levels of well-being for men and women with and without children under 18 in the household, as well as parents in activities with and without children present.

The ATUS measures of subjective well-being[3] were initially tested in the Princeton Affect and Time Use Study (Krueger et al. 2009) and overlap in part with those in the Gallup World Poll and the European Social Survey (OECD 2013). They represent key dimensions of Russell's circumplex model of core affect (1980, 2003), which suggests that emotions can be understood as a combination of a positive/negative and arousal dimension: positive low arousal like contentment, positive high arousal like happiness, negative low arousal like sadness, and negative high arousal like stress. The repeated finding that positive emotions are highly correlated whereas negative emotions are not (e.g., Kapteyn et al. 2013) justifies the exclusion of more positive indicators from our set of outcomes and the inclusion of an additional negative emotion—tired (negative low arousal). A eudaimonic measure is further important because questions tapping purpose often cross the positive-negative dimensions. Stone and Mackie (2013) suggest, for example, that one can find pleasure but little meaning in an activity like watching TV, or conversely, meaning but little pleasure in an activity like reading the same book repeatedly to a child. Taken together, happiness, meaning, sadness, stress, and fatigue provide a useful, multidimensional set of affect measures through which we can assess well-being in a range of activities, including parenting.

<Table 1: Characteristics of activities >

Parenthood and parenting. As noted above, we can identify parents in our sample only by the presence of children on the household roster. Our proxy for *parenthood* is having a child under 18 in the household. Men and women without a household child under 18 are a somewhat heterogeneous group, including those whose children are grown or living elsewhere (somewhat

limited by our age restriction of 21-55) and those who have never had children. *Parenting* is defined as being in an activity with a household child under 18, based on responses to the activity-level question "Who was with you?" (ATUS 2014, p. 50). As noted, this definition captures a broader range of activities and child ages than childcare; whereas 31% of parents in our sample (42% of men and 22% of women ages 21-55 with household children under 18) reported no childcare activities throughout the diary day, only 7% (10% of fathers and 5% of mothers) reported no time with children. In our well-being sample, there is substantial within-person variation among parents in activities with and without children: 27% reported no activities with children, 29% reported 1, 25% reported 2, and 19% reported 3.

Activity type. Our coding of broad activity type follows most closely that of Aguiar and Hurst (2007). We differentiate four broad types: market work, nonmarket work, leisure, and care work. Men and women with and without children in the home engage in many of these activities, and many can be done with or without children present. We show broad activity groupings for descriptive purposes, but we include more specific categories for non-market work, leisure, and care work in our multivariate models. *Market work* includes all work for pay, meals and breaks at work, searching for a job, and applying for unemployment benefits. Detailed codes for non-market work and leisure approximate those developed by Kahneman and colleagues (2004). *Non-market work* encompasses work in the home, broken into the four more specific categories of cooking, cleaning, shopping, and other (e.g., running errands, yard work and pet care). *Leisure*, or free time, also encompasses four more specific categories: watching television; socializing and relaxing; educational, civic, and religious activities; and eating and drinking.

Care work includes the care of adults and children, and we follow the lead of prior studies (Guryan, Hurst, and Kearney 2008; Milkie et al. 2010; Sayer et al. 2004) in coding more

specific childcare activities, following most closely Kalil, Ryan and Corey (2012). We differentiate care of adults and four categories of childcare: routine, play, teaching, and management. *Routine* care includes direct physical care of children, looking after children, and caring for children. *Play* includes non-sport playing, sport playing, and doing arts and crafts, for example, giving child a piggyback ride, building model planes, or riding bikes. *Teaching* activities encompass reading to or with a child, helping or teaching a child, activities related to children's education, and talking with or listening to a child. Finally, *management* encompasses attending children's events, waiting for or with children, picking up or dropping off children, activities related to children's health, and organizing or planning for children, for example, waiting for the school bus and planning play dates or signing up for activities.

With a spouse. Using the same question "who with" question used to assess whether the respondent was engaged in an activity with a child, we coded with a spouse or partner (versus not with a spouse or partner). Among parents, this taps coparenting versus solo time with children.

Sleep and leisure. We include two individual-level indicators of sleep and three indicators of leisure. Total sleep is a continuous variable that registers hours men and women reported sleeping in the prior 24-hour period. Disrupted sleep is a dichotomous indicator for reports of three or more sleep episodes. Total leisure is measured analogously to total hours of sleep. Number of episodes of leisure is a count variable—this may index interrupted leisure (as is likely in sleep), though it may also indicate distinct leisure activities. Finally, leisure with children only indicates how many hours of leisure is potentially "contaminated" by parenting duties with no other adult present to help.

Sociodemographic characteristics and other controls. Individual-level variables include age (in years), race/ethnicity (non-Hispanic White, non-Hispanic Black, Hispanic, other), whether a spouse or partner is in the household, whether the respondent is a college graduate, whether the respondent is enrolled in school, employment status (full time, part time, not working for pay), family income (<$25,000, $25,000-99,000, $100,000 or more, and missing information on income), the season in which the diary was reported (winter, spring, summer, fall), and whether the diary was reported on a weekend day. In analyses limited to parents, we further control for number of children (one, two, or more) and age of youngest child (<6 years, 6-12 years, 13+ years). At the activity-level, we account for location (in public, at home, and at work, in response to a question asked about activities "Where were you?"), duration in hours, and time of day (4 to 9am, 9am to 2pm, 2 to 5pm, 5 to 9pm, and 9pm to 4am). Among parents, we further include cumulative time with children (total hours in activities with children at initiation of the indexed activity). Appendix Table A1 shows descriptive statistics on individual- and activity-level controls.

RESULTS

Descriptive Findings

Table 1 shows key characteristics of activities, separately for men and women by whether there is a child under age 18 in the household, and if so, whether a child was present in the activity. This table signals potential differences in momentary well-being and the distribution of activities by parenthood, parenting, and parent gender. The first set of rows shows mean levels of subjective well-being for our five well-being indicators. Without controls for the more socially advantaged characteristics of parents (Deaton and Stone 2013), men and women with household children fare statistically significantly better than those without household children on happiness

and meaning. There are no differences in sadness, stress, or fatigue for either mothers or fathers compared to their counterparts without household children ($P<.05$). Among those with household children, parents fare statistically significantly better in activities with their children than without. This pattern holds for both mothers and fathers across indicators of well-being—with the exception of fatigue among mothers (where there is no statistically significant difference between mothers in activities with and without their children). Mothers report lower subjective well-being than fathers in time with children (differences in meaning not statistically significant).

<Table 1. Characteristics of activities >

The next set of rows shows activities grouped into broad categories. A greater share of activities are spent in care work and nonmarket work among men and women with household children than without (this is especially true of women); a smaller share is spent in leisure. Fathers engage in more market work, whereas mothers engage in less, relative to their counterparts without household children. Parents (not surprisingly) are less often in market work and more often in care work when children are present. They are also more often in leisure activities when children are present, and this is especially true of fathers. In fact, most of fathers' time with children is in leisure whereas mothers' time with children is more evenly distributed among leisure, care work, and non-market work. Additional gender differences can be seen in the more detailed activity types shown in the next set of rows. For example, a greater share of mothers' versus fathers' care work activities with children are in basic childcare and a smaller share in play: mothers' basic childcare activities outnumber play two to one, whereas an equal share of fathers' childcare activities are spent in basic care and play. A higher share of mothers overall time with children is in childcare management, and mothers' greater time in nonmarket work with children is also more often in the more inflexible activities of cooking and cleaning.

The final row of Table 1 shows the proportion of sampled activities in which a spouse or partner is also present. Parents engaged in activities with their children are the group most likely to be with a spouse or partner, and they are also the group for whom gender differences are greatest. Mothers engaged in activities with their children are half as likely to also be with their spouse or partner: 31% of mothers' activities with children are also with a spouse or partner compared to 61% of fathers' activities. This is true in part because women are much more likely than men to be parenting without a spouse or partner in the household. Ancillary analyses indicate that for our sample, 23% of women with children in the household are living without a spouse or partner compared to 6% of men with children in the household. But even mothers with a partner in the household do more solo parenting than fathers.

Table 2 shows descriptives for our proposed person-level mediators—diary day summaries of sleep and leisure—for men and women by whether there is a child in the household (there is no within-person variation in these measures, thus we do not list separately activities with and without children present). The first few rows show that compared to those without household children, those with children get less time in sleep and leisure. Consistent with prior research, women get about 20 minutes more sleep than men, and this gap holds across those with and without household children. But women, and especially mothers, are also more likely to suffer sleep interruptions than men (e.g., 20% of mothers experience 3 or more sleep episodes compared to 13% of fathers), indicating lower sleep quality. Mothers spend 0.28 hours (17 minutes) less in leisure than fathers; they also have 0.58 more episodes of leisure and 0.46 hours (28 minutes) more in leisure with children only, suggesting more interrupted and less relaxing free time.

<Table 2. Diary day summary variables >

In sum, descriptives show that parents generally report higher subjective well-being than men and women without household children, particularly in activities with children present. Mothers report lower subjective well-being in parenting than fathers. This is potentially due to differences in the ways in which they spend time with children and the quality of restorative time in sleep and leisure. As compared to fathers, mothers engage in more time-inflexible (and potentially more onerous) activities with children, like basic care, cooking, and cleaning, and less time in play and leisure, as well as more solo-parenting. Whereas they sleep more, they experienced more sleep interruptions, less leisure, and potentially lower quality leisure. We examine these descriptive patterns next in a multivariate framework.

Subjective Well-Being in Parenthood

Our questions of interest in Table 3 are whether parents report better or worse momentary well-being than those without household children net of individual- and activity-level controls, and whether differences in well-being associated with parenthood are more pronounced for mothers versus fathers. These associations are tested with three indicators: whether there is a child under 18 in the household, the respondent's gender, and a parenthood by gender interaction. Model 1 includes all controls (shown in Appendix Table A1), and Model 2 adds our proposed mediators, including detailed activity type, the presence of a spouse or partner, and indicators of sleep and leisure. We estimate Models 1 and 2 for each of our five indicators of subjective well-being. Table 3 shows key variables, and full model results are in Appendix Table A2.

<Table 3. Random effect models of subjective well-being in parenthood>

Multivariate results provide weaker evidence than descriptives of parenthood advantages in momentary assessments of subjective well-being. In Model 1, we find small positive

associations between parenthood and happiness and somewhat larger positive associations with meaning; there are no statistically significant differences in sadness, stress, or fatigue between those with and without household children, and only differences in meaning hold up in Model 2. We observe mixed main associations between gender and subjective well-being. Model 2 shows that women are happier and find more meaning in what they are doing, but they are also more stressed and fatigued. We find no statistically significant interactions between parenthood and gender in Model 1 or Model 2, suggesting that women differ little from men in the link between parenthood and momentary well-being.

Activity type, the presence of a spouse or partner, and sleep and leisure explain in part the limited differences we observe between parents and those without household children (there are no statistically significant gender differences in parenthood to account for). They are signed much as expected, with generally lower subjective well-being in market and nonmarket work (although higher meaning) relative to television-watching, and greater subjective well-being in childcare (although more stress). People are particularly unhappy cleaning and stressed in market work and shopping. Almost across the board, they report the best outcomes playing with children. Across every outcome, being with a spouse or partner is associated with better subjective well-being, and sleep disruptions are associated with worse outcomes (statistically significant for all but meaning). Associations with hours in leisure and sleep are mixed. More sleep is associated with less happiness and meaning (reverse causality seems likely here), but also less stress and less fatigue. More leisure is associated with less meaning and more sadness, but also less stress and less fatigue. "Contaminated" leisure, that is leisure with children only, is statistically insignificant across outcomes.

Subjective Well-Being in Parenting

In descriptive results, we found that parents' well-being in activities depended strongly on whether they were in activities with their child. In multivariate results not shown (available upon request), we differentiated between parents in activities with and without their children present and compared them to those without children in the household. Bivariate results generally held up in models with our full set of controls: in time without their children, parents looked similar in subjective well-being to those without household children; in time with their children, parents fared better in happiness, meaning, and sadness, and similarly in stress and fatigue. In Table 4, we further explore differences between parents, limiting our analysis to those with household children and focusing on well-being in activities with and without children present. We test differences between mothers' and fathers' subjective well-being in parenting with an interaction between time with children and gender. As in Table 3, Model 1 includes individual- and activity-level controls, and Model 2 adds our proposed mediators. We show only key variables in Table 4 and include full model results in Appendix Table A3.

<Table 4: Random effect models of subjective well-being in parenting >

Results demonstrate consistently better outcomes among parents in activities with children versus without: greater happiness and meaning and less sadness, stress (statistically significant in Model 1 only), and fatigue. Associations with well-being indicators are dampened substantially in Model 2 with the inclusion of activity type, the presence of a spouse or partner, and sleep and leisure. Only the estimate of fatigue in parenting changes little with the inclusion of these variables in Model 2. Main associations of gender are similar to those observed in Table 3, with mothers reporting more happiness but also more stress and fatigue than fathers (in Models 1 and 2). Parenting by gender interactions are statistically significant in Model 1 for

three of our five outcomes: mothers are less happy, more stressed, and more fatigued than fathers in time with children ($P<.10$ for happiness and stress). In Model 2, only the higher level of fatigue in time with children among mothers versus fathers retains statistical significance; the coefficient (already modest in size) is reduced by about 20%. It indicates a difference in fatigue scores between mothers in activities with and without children of 0.137 higher than that between fathers in activities with and without children, representing about 10% of a standard deviation in mean fatigue in our sample.

Mothers engage in different activities with children, more often parent on their own, and experience lower quality sleep and leisure than fathers. These variables are largely associated with well-being in expected ways, and when added in Model 2 account at least in part for mothers' lower levels of happiness and higher stress and fatigue in parenting found in Model 1. Mothers do more time-flexible tasks like basic childcare, childcare management, cooking, and cleaning with their children than fathers, and fathers engage in more play and leisure with children. Cooking and cleaning are associated with poorer subjective well-being relative to playing with children and leisure activities. Whereas childcare tends to be associated with better outcomes than nonmarket work and some types of leisure, basic childcare and childcare management rank lower than play across all dimensions of subjective well-being. Indeed, as was true in models including those without household children (Table 3), play is associated with the highest levels of well-being of the various activities examined. And associations are large, for example, the difference in happiness in play versus watching television is 0.787 points, or about half a standard deviation in mean happiness.

Mothers more often parent alone than fathers, and the presence of a spouse or partner is associated with greater well-being (not statistically significant for fatigue, $P<.10$ for sadness and

stress). These relationships contribute to worse outcomes on happiness and stress among mothers in parenting, although the magnitude of associations between spouse/partner presence and well-being is relatively modest, particularly for stress. Total hours of sleep are a poor candidate for explaining mothers' outcomes in parenting, as mothers sleep more than fathers, and sleep hours reduce stress and fatigue. Sleep interruptions, however, are a better candidate: mothers experience more sleep disruptions than fathers, and these are associated with less happiness, more stress, and more fatigue. The magnitude of associations between disrupted sleep and well-being, moreover, is reasonably strong, for example, consistently stronger than spouse/partner presence. Finally, results suggest that total time in leisure factors into differences in stress and fatigue between mothers and fathers in time with children: mothers experience less leisure, and leisure is associated with less stress and fatigue. Hours of leisure with children only are not associated with any of our well-being indicators.

We ran sensitivity analyses (results available upon request) to check the robustness of our findings to model specification. We examined our parenting by gender models in a fixed effects framework, relying exclusively on within-person variation to identify well-being differences among parents in activities with and without children present. All individual-level covariates drop from our estimation equations (e.g., main gender effects, sleep, leisure), and the approach fully accounts for all individual characteristics (observed and unobserved) that are invariant across activities. These models produced the same key findings with respect to parenting and gender differences as reported in Table 4, providing evidence that our findings are not driven by unobserved differences in parents' individual characteristics.

DISCUSSION

We set out to understand links between parenting and subjective well-being and how they differ for mothers and fathers. Our emphasis on momentary well-being in parenting activities draws attention to how the nature and context of time use contribute to differences in parents' subjective well-being. Assessments tied specifically to activities are more reliable and valid than global indicators of well-being (Kahneman and Krueger 2006; Lucas et al. 2003; NRC 2012), and within-person variation offers leverage in estimating factors that play into well-being. Work in this area is sparse, and we further contribute to prior literature by drawing on a nationally representative sample, investigating multiple dimensions of subjective well-being, and measuring aspects of gendered time use that often go unaccounted for in studies of men's and women's family roles. These measures include a broader conception of parenting as time with children (as opposed to childcare or time in direct interaction with children), as well as indicators of activity type, solo parenting, and the quality of restorative time in sleep and leisure.

We bridged to past work on parenthood in the first step of our analysis. The bulk of prior evidence points to negative associations between subjective well-being and parenthood, especially motherhood (e.g., Simon 2008), yet we found no evidence that parents are worse off than those without household children, and we found no evidence of gender differences in associations. In our fully controlled models of parenthood, we found no statistically significant differences between parents and those without household children in happiness, sadness, stress, or fatigue. However, we found one dimension on which parents report more favorable outcomes: meaning. Parents' reports of more meaning in activities underscores the importance of a purpose-related dimension in assessments of well-being, and is consistent with the notion that parents may experience greater fulfillment without necessarily greater pleasure, or "all joy and no fun"

(Senior 2014). Studies have begun to document a more complex picture of the costs and rewards of parenthood, for example, Herbst and Ifcher's (2012) recent study finds that parenthood and happiness are positively associated in many of their model specifications, and that positive associations are stronger among more recent samples of parents. Most work on parental well-being is based on general assessments of well-being—often happiness and satisfaction—limiting the extent to which it can inform expectations regarding momentary assessments across multiple dimensions.

Although we found few differences in subjective well-being comparing parents and those without household children, this relationship varied significantly by the presence of children: in activities away from children, parenthood was little associated with well-being, but in activities with their children, parents consistently reported greater subjective well-being. In the second step of our analysis, we limited our sample to parents and compared the well-being of mothers and fathers in activities with and without their children. In models including individual- and activity-level controls, parents were better off in activities with their children than without, but mothers were less happy, more stressed, and more fatigued than fathers in time with children. Gender differences in happiness and stress were fully accounted for by the inclusion of detailed activity type, the presence of a spouse or partner, and the quality of sleep and leisure; differences in fatigue were partially accounted for.

Mothers spend more time with children in relatively onerous activities like basic childcare, childcare management, cooking, and cleaning, whereas fathers spend more time in activities high in enjoyment and low in stress, like play and leisure. Mothers do more solo parenting, experience more sleep disruptions, and have less leisure, all associated with detriments in well-being. Our proposed mechanisms were generally associated with well-being

in expected directions, with the exception of time in leisure with children only. This measure of "contaminated leisure" bore no significant relationship to well-being. This is inconsistent with literature suggesting that leisure with children should be less restorative and associated with more negative outcomes (e.g., Mattingly and Bianchi 2003). Our finding that parents generally experience quite positive affect in time with children suggests that leisure with children may not be as restorative as other forms of leisure, but nor is it a negative experience in the context of other daily activities. Our measures captured important aspects of gender differences in the nature of time use, and together these helped to explain gender differences in parenting experiences. We were unable, however, to fully account for mothers' greater fatigue in parenting. This potentially reflects aspects of mothering that remain unmeasured here—and indeed impossible to capture using the ATUS, including the background tracking of the family to-do list likely associated with multi-tasking and emotional strain (Milkie, Raley, and Bianchi 2009; Offer and Schneider 2011).

We hypothesized that time with children would elicit more positive and negative feelings than time without children, but we found that time in activities with children was consistently associated with positive feelings. Prior evidence on this count is mixed (e.g., Kahneman et al. 2004; Nelson et al. 2013). Positive feelings in parenting may reflect parents' enjoyment of time with children, or on the flip side, their feeling rushed or guilty in time away from children, as discussed popular accounts of parenting (e.g., Pickert 2012; also Milkie et al. 2009). We further posited that mothers' greater investments in children would mean greater strain but also more meaning in parenting relative to fathers. We found evidence of greater strain (less happiness, more stress, more fatigue), but no evidence of greater meaning among mothers in time with children. This suggests that the added investments associated with mothering do not contribute to

mothers' well-being, at least not in the moment. They may factor into more global assessments of satisfaction or fulfillment, but even so, momentary assessments are key aspects of well-being, and we further expect that mothers' momentary unhappiness, stress, and fatigue filter into interactions with children and the quality of parent-child relationships.

The child development literature stresses the importance of mother's time for child well-being (e.g., Kalil et al. 2012; Raley 2014), and the ideology of intensive mothering suggests that mothers' time is irreplaceable (Hays 1996). Thus we might assume that in allocating their time, mothers are trading off their well-being against the well-being of their children. But recent work based on the Panel Study of Income Dynamics Child Development Supplement (Milkie, Nomaguchi, and Denny Forthcoming) questions this notion, finding that the quantity of maternal time is not associated with well-being among young children, and its relationship to well-being among adolescents is mixed. Are mothers' stress and fatigue in interactions with children mediating factors? Would families be better off if mothers, like fathers, spent less time overall with children, engaged in more enjoyable activities with children, and carved out more downtime? Are mothers' time allocations necessary to "cover the goal" (Bianchi, p. 412), or could parental roles be redefined to allow both mothers and fathers more flexibility in their time with children?

The ATUS well-being sample allows us to make considerable strides in understanding well-being in parenting, yet limitations remain. Although we have time diaries from women and men, we have data from only one respondent per household at one point in time. Couple-level data would allow further exploration into questions about time trade-offs among family members. And panel data would make it possible to assess how time trade-offs are made in association with other family and work-related transitions, for example, following the birth of a

child or entry into full-time employment. As noted, although we take care to measure nuances of gendered time use, some aspects go unobserved. These are important avenues for further research, as is the "why" behind gendered patterns in time use—for example, whether due to the reluctance of fathers to do more or of mothers to step back from pervasive expectations of intensive mothering (e.g., Allen and Hawkins 1999). The present study shows that parents enjoy time with their children, but that mothers' involvement carries more strain than fathers'. These gender differences have potentially important implications for families and point to questions about our models of parenthood and the supports available to them.

REFERENCES

Aassve, Arnstein, Alice Goisis, and Maria Sironi. 2012. "Happiness and Childbearing across Europe." *Social Indicators Research.* 108(1): 65-86.

Abraham, Katharine G., Sara Helms, and Stanley Presser. 2009. "How Social Processes Distort Measurement: The Impact of Survey Nonresponse on Estimates of Volunteer Work in the United States." *American Journal of Sociology* 114(4): 1129-64.

Aguiar, Mark and Erik Hurst. 2007. "Measuring Trends in Leisure: The Allocation of Time over Five Decades." *The Quarterly Journal of Economics* 122(3): 969-1006.

Allen, Sarah M. and Alan J. Hawkins. 1999. "Maternal Gatekeeping: Mothers' Beliefs and Behaviors that Inhibit Greater Father Involvement in Family Work." *Journal of Marriage and Family* 61(1): 199-212.

Allison, Paul D. 2009. *Fixed Effects Regression Models*. Newbury Park, CA: Sage.

ATUS Data Dictionary: 2010, 2012, and 2013 Well-Being Module. 2014. Available at https://www.atusdata.org/atus/linked_docs/WB_Module_Codebook.pdf (accessed 9/26/14)

ATUS User's Guide. 2014. Available at https://www.atusdata.org/atus/linked_docs/atususersguide.pdf (accessed 9/26/14)

Bianchi, Suzanne M., and John Robinson. 1997. "What Did You Do Today? Children's Use of Time, Family Composition, and the Acquisition of Social Capital." *Journal of Marriage and the Family* 59(2): 332-44.

Bianchi, Suzanne M. 2000. "Maternal Employment and Time with Children: Dramatic Change or Surprising Continuity?" *Demography* 37(4): 401-14.

Bianchi, Suzanne M. 2011. "Change and Time Allocation in American Families." *ANNALS of the American Academy of Political and Social Science* 638: 21-44.

Bird, Chloe E., and Allen M. Fremont. 1991. "Gender, Time Use, and Health." *Journal of Health and Social Behavior* (32): 114-29.

Bird, Chloe E. 1997. "Gender Differences in the Social and Economic Burdens of Parenting and Psychological Distress." *Journal of Marriage and the Family* 59(4): 809-823.

Bittman, Michael and Judy Wajcman. 2000. "The Rush Hour: The Character of Leisure Time and Gender Equity." *Social Forces* 79(1): 165-89.

Blair-Loy, Mary. 2001. "Cultural Constructions of Family Schemas: The Case of Women Finance Executives." *Gender & Society* 15(5): 687-709.

Blair-Loy, Mary. 2003. *Competing Devotions: Career and Family among Women Executives*. Cambridge, MA: Harvard University Press.

Blair-Loy, Mary, and Melissann L. Herron. 2013. "The Resilience of Gender and Gender Inequality in the Contemporary United States." *Sex Roles* 68(9-10): 623-625.

Burgard, Sarah A., and Jennifer A. Ailshire. 2013. "Gender and Time for Sleep among U.S. Adults." *American Sociological Review* 78(1): 51-69.

Buxton, Orfeu M. and Enrico Marcelli. 2010. "Short and Long Sleep are Positively Associated with Obesity, Diabetes, Hypertension, and Cardiovascular Disease among Adults in the United States." *Social Science & Medicine* 71(5):1027-36.

Campos, Belinda, Shu-wen Wang, Tatyana Plaksina, Rena L. Repetti, Dominik Schoebi, Elinor Ochs, and Margaret E. Beck. 2013. "Positive and Negative Emotion in the Daily Life of Dual-Earner Couples With Children." *Journal of Family Psychology* 27(1): 76-85.

Correll, Shelley J., Stephen Benard, and In Paik. 2007. "Getting a Job: Is There a Motherhood Penalty?" *American Journal of Sociology* 112(5): 1297-1339.

Craig, Lyn. 2007. *Contemporary Motherhood: The Impact of Children on Adult Time*. Aldershot: Ashgate Publishing.

Craig, Lyn and Killian Mullan. 2011. “How Mothers and Fathers Share Childcare: A Cross-National Time-Use Comparison.” *American Sociological Review* 76: 834-61.

Craig, Lyn and Killian Mullan. 2013. “Parental Leisure Time: A Gender Comparison in Five Countries.” *Social Politics* 20(3): 329–57.

Daly, Kerry J. 2001. "Deconstructing Family Time: From Ideology to Lived Experience." *Journal of Marriage and Family* 63(2): 283-94.

Deaton, Angus, and Arthur A. Stone. 2013. "Two Happiness Puzzles." *The American Economic Review* 103(3): 591-97.

Deem, Rosemary. 1996. "No Time for a Rest? An Exploration of Women's Work, Engendered Leisure and Holidays." *Time & Society* (1): 5-25.

Dunifon, Rachel, Ariel Kalil, Danielle A. Crosby, and Jessica Houston Su. 2013. "Mothers’ Night Work and Children’s Behavior Problems." *Developmental Psychology* 49(10): 1874-85.

Evenson, Ranae J. and Robin W. Simon. 2005. "Clarifying the Relationship between Parenthood and Depression." *Journal of Health and Social Behavior* 46(4): 341-58.

Folbre, Nancy, Jayoung Yoon, Kade Finnoff, and Allison Sidle Fuligni. 2005. "By What Measure? Family Time Devoted to Children in the United States." *Demography* 42(2): 373-90.

Freysinger, Valeria J. 1994. "Leisure with Children and Parental Satisfaction: Further Evidence of a Sex Difference in the Experience of Adult Roles and Leisure." *Journal of Leisure Research* 26(3): 212-26.

Friedman, Debra, Michael Hechter, and Satoshi Kanazawa. 1994. "A Theory of the Value of Children." *Demography* 31(3): 375-401.

Gauthier, Anne H., Timothy M. Smeeding and Frank F. Furstenberg, Jr. 2004. "Are Parents Investing Less Time in Children? Trends in Selected Industrialized Countries." *Population and Development Review* 30(4): 647-71.

Garey, Anita I. 1999. *Weaving Work and Motherhood*. Philadelphia: Temple University Press.

Glass, Jennifer, Robin Simon, and Mathew A. Andersson. 2013. "Parenthood and Happiness: Findings from a Cross-National Study of 22 OECD Nations." Unpublished manuscript.

Guryan, Jonathan, Erik Hurst, and Melissa Kearney. 2008. "Parental Education and Parental Time with Children." *Journal of Economic Perspectives* 22(3): 23-46.

Hansen, Thomas. 2012. "Parenthood and Happiness: A Review of Folk Theories versus Empirical Evidence." *Social Indicators Research.* 108(1): 29-64.

Harrington, Brad, Fred Van Deusen, and Beth Humberd. 2011. "The New Dad: Caring, Committed and Conflicted." Boston, MA: Boston College Center for Work & Family.

Hays, Sharon. 1996. *The Cultural Contradictions of Motherhood*. Yale University Press.

Herbst, Chris and John Ifcher. 2012. "A Bundle of Joy: Does Parenting Really Make Us Miserable?" Paper presented at the Population Association of American Annual Meeting in San Francisco, CA.

Hislop, Jenny, and Sara Arber. 2003. "Sleepers Wake! The Gendered Nature of Sleep Disruption among Mid-Life Women." *Sociology* 37(4): 695-711.

Hofferth, Sandra L., Sarah M. Flood, and Matthew Sobek. 2013. American Time Use Survey Data Extract System: Version 2.4 [Machine-readable database]. Maryland Population

Research Center, University of Maryland, College Park, Maryland, and Minnesota Population Center, University of Minnesota, Minneapolis, Minnesota.

Hoffman, Lois Wladis, and Martin L. Hoffman 1973. "The Value of Children to Parents." Pp. 19-76 in *Psychological Perspectives on Population*, edited by James T. Fawcett. New York: Basic Books.

Hrdy, Sarah Blaffer. 1999. *Mother Nature: A History of Mothers, Infants, and Natural Selection*. Pantheon Books.

Kahneman, Daniel, Alan B. Krueger, David A. Schkade, Norbert Schwarz, and Arthur A. Stone. 2004. "A Survey Method for Characterizing Daily Life Experience: The Day Reconstruction Method." *Science* 306: 1776-80.

Kahneman, Daniel, and Alan B. Krueger. 2006. "Developments in the Measurement of Subjective Well-Being." *The Journal of Economic Perspectives* 20(1): 3-24.

Kalil, Ariel, Rebecca Ryan, and Michael Corey. 2012. "Diverging Destinies: Maternal Education and Investments in Children" *Demography* 49(4): 1361-83.

Kalil, Ariel, Rebecca Ryan, and Elise Chor. 2014. "Time Investments in Children across Family Structures." *Annals of the American Academy of Political and Social Science*, forthcoming.

Kapteyn, Arie, Jinkook Lee, Caroline Tassot, Hana Vonkova, and Gema Zamarro. 2013. "Dimensions of Subjective Well-Being." *CESR Working Paper*.

Kaufman, Gayle. 2013. *Superdads: How Fathers Balance Work and Family in the 21st Century*. NYU Press.

Kiernan, Kathleen E. and M. Carmen Huerta. 2008. "Economic Deprivation, Maternal Depression, Parenting, and Children's Cognitive and Emotional Development in Early Childhood." *The British Journal of Sociology* 59(4): 783–806.

Kimmel, Jean and Rachel Connelly. 2007. “Determinants of Mothers’ Time Choices in the United States: Caregiving, Leisure, Home Production, and Paid Work.” *Journal of Human Resources* 42(3): 643-81.

Kohler, Hans-Peter, Jere R. Behrman, and Axel Skytthe. 2005. "Partner + Children = Happiness? The Effects of Partnerships and Fertility on Well-Being". *Population and Development Review*. 31(3): 407-45.

Kronholm, Erkki, Mikael Sallinen, Timo Suutama, Raimo Sulkava, Pertti Era, and Timo Partonen. 2009. "Self-Reported Sleep Duration and Cognitive Functioning in the General Population." *Journal of Sleep Research* 18(4): 436-46.

Krueger, Alan B., Daniel Kahneman, Claude Fischler, David Schkade, Norbert Schwarz, and Arthur A. Stone. 2009. "Time Use and Subjective Well-Being in France and the US." *Social Indicators Research* 93(1): 7-18.

Lareau, Annette. 2002. "Invisible Inequality: Social Class and Childrearing In Black Families and White Families." *American Sociological Review* 67(5): 747-76.

Lareau, Annette. 2003. *Unequal Childhoods: Race, Class, and Family Life*. University of California Press.

Lareau, Annette. 2011. *Unequal Childhoods: Race, Class, and Family Life*. Second Edition with an Update a Decade Later. University of California Press.

Larson, Reed W., Maryse H. Richards, and Maureen Perry-Jenkins. 1994. "Divergent Worlds: The Daily Emotional Experience of Mothers and Fathers in the Domestic and Public Spheres." *Journal of Personality and Social Psychology* 67(6): 1034-46.

Latshaw, Beth A. and Stephanie Hale. 2013. "'The Domestic Handoff': A Mixed-Methods Assessment of Fathers' Time-Use in Female Breadwinner Families." Paper presented at the Annual Meeting of the Population Association of America, New Orleans, LA.

Lawrence, Erika, Rebecca Cobb, Alexia Rothman, Michael Rothman, and Thomas Bradbury. 2008. "Marital Satisfaction across the Transition to Parenthood." *Journal of Family Psychology* 22(1): 41-50.

Liefbroer, Aart C. 2005. "The Impact of Perceived Costs and Rewards of Childbearing on Entry into Parenthood: Evidence from a Panel Study." *European Journal of Population* 21: 367-91.

Lucas, Richard E., Andrew E. Clark, Yannis Georgellis, and Ed Diener. 2003. "Reexamining Adaptation and The Set Point Model Of Happiness: Reactions to Changes in Marital Status." *Journal of Personality and Social Psychology* 84(3): 527-39.

MacCoby, Eleanor E. 1980. *Social Development: Psychological Growth and the Parent-Child Relationship*. New York: Harcourt Brace Jovanovich.

Margolis, Rachel and Mikko Myrskyla. 2011. "A Global Perspective on Happiness and Fertility." *Population and Development Review* 37(1): 29-56.

Marsiglio, William, and Kevin Roy. 2012. *Nurturing Dads: Fatherhood Initiatives Beyond the Wallet*. Russell Sage Foundation.

Mattingly, Marybeth J. and Suzanne M. Bianchi. 2003. "Gender Differences in the Quantity and Quality of Free Time: The US Experience." *Social Forces* 81(3): 999-1030.

Mattingly, Marybeth J. and Liana C. Sayer. 2006. "Under Pressure: Gender Differences in the Relationship between Free Time and Feeling Rushed." *Journal of Marriage and Family* 68(1): 205-21.

Maume, David J., Rachel A. Sebastian, and Anthony R. Bardo. 2009. "Gender Differences in Sleep Disruption among Retail Food Workers." *American Sociological Review* 74(6): 989-1007.

McLanahan, Sara, and Julia Adams. 1987. "Parenthood and Psychological Well-Being." *Annual Review of Sociology* 13: 237-57.

Meadows, Sarah O., Sara S. McLanahan, and Jeanne Brooks-Gunn. 2007. "Parental Depression and Anxiety and Early Childhood Behavior Problems across Family Types." *Journal of Marriage and Family* 69:1162–77.

Milkie, Melissa A. and Kathleen E. Denny. 2014. "Changes in the Cultural Model of Father Involvement: Descriptions of Benefits to Fathers, Children and Mothers in Parents' Magazine, 1926-2006." *Journal of Family Issues* 35: 223-53.

Milkie, Melissa A., Sarah M. Kendig, Kei M. Nomaguchi, and Katheleen E. Denny. 2010. "Time with Children, Children's Well-Being and Work-Family Balance among Employed Parents." *Journal of Marriage and the Family* 72: 1329-43.

Milkie, Melissa A., Kei M. Nomaguchi, and Kathleen Denny. Forthcoming. "Does the Amount of Time Mothers Spend with Children or Adolescents Matter?" *Journal of Marriage and Family.*

Milkie, Melissa A., Sara B. Raley, and Suzanne M. Bianchi. 2009. "Taking on the Second Shift: Time Allocations and Time Pressures of U.S. Parents with Preschoolers." *Social Forces* 88(2): 487-518.

Mirowsky, John and Catherine E. Ross. 2002. "Depression, Parenthood, and Age at First Birth." *Social Science and Medicine* 54(8): 1281-98.

Morgan, S. Philip and Rosalind Berkowitz King. 2001. “Why Have Children in the 21st Century?” *European Journal of Population* 17: 3-20.

Morgan, S. Philip. 2003. “Is Low Fertility a Twenty-First Century Demographic Crisis?” *Demography* 40(4): 589-603.

Munch, Allison, J. Miller McPherson, and Lynn Smith-Lovin. 1997. "Gender, Children, and Social Contact: The Effects of Childrearing for Men and Women." *American Sociological Review* 62(4): 509-20.

Musick, Kelly and Larry Bumpass. 1999. "How Do Prior Experiences in the Family Affect Transitions to Adulthood." Pp 69-102 in *Transitions to Adulthood in a Changing Economy: No Work, No Family, No Future*, edited by Alan Booth, Ann C. Crouter, and Michael J. Shanahan. Greenwood Publishing Group.

Musick, Kelly and Ann Meier. 2012. “Child Well-Being and the Long Reach of Family Relationships.” Pp. 105–120 in *Early Adulthood in a Family Context*, edited by Alan Booth, Susan L. Brown, Nancy Landale, Wendy Manning, and Susan M. McHale. New York: Springer.

Myrskyla, Mikko and Rachel Margolis. 2014. “Happiness: Before and After the Kids.” *Demography* August 21 (online).

National Research Council Panel on Measuring Subjective Well-Being in a Policy-Relevant Framework. 2012. *The Subjective Well-Being Module of the American Time Use Survey: Assessment for Its Continuation.* Washington, DC: The National Academies Press. Available at http://www.ncbi.nlm.nih.gov/books/NBK109558/ (accessed 9/15/14)

Nelson, S. Katherine, Kostadin Kushlev, Tammy English, Elizabeth W. Dunn, and Sonja Lyubomirsky. 2013. "In Defense of Parenthood Children Are Associated With More Joy than Misery." *Psychological Science* 24(1): 3-10.

Nelson, S. Katherine, Kostadin Kushlev, and Sonja Lyubomirsky. 2014. "The Pains and Pleasures of Parenting: When, Why, and How is Parenthood Associated with More or Less Well-Being?" *Psychological Bulletin* 140(3): 846-95.

Nomaguchi, Kei M. and Melissa A. Milkie. 2003. "Costs and Rewards of Children: The Effects of Becoming a Parent on Adults' Lives." *Journal of Marriage and Family* 65(2): 356-74.

Nomaguchi, K. M., Milkie, M. A., & Bianchi, S. 2005. Time strains and psychological wellbeing: Do dual-earner mothers and fathers differ? *Journal of Family Issues*, *26*, 759–792.

OECD. 2013. OECD Guidelines on Measuring Subjective Well-being, OECD Publishing. Available at http://dx.doi.org/10.1787/9789264191655-en (accessed 10/6/14)

Offer, Shira and Barbara Schneider. 2011. "Revisiting the Gender Gap in Time-Use Patterns: Multitasking and Well-Being among Mothers and Fathers in Dual-Earner Families." *American Sociological Review* 76(6): 809-33.

Offer, Shira. 2014. "Time with Children and Employed Parents' Emotional Well-Being." *Social Science Research* 47: 192-203.

Parker, Kim and Wendy Wang. 2013, March 14. "Modern Parenthood: Roles of Moms and Dads Converge as They Balance Work and Family." Pew Research Center, Washington, D.C. Available at http://www.pewsocialtrends.org/2013/03/14/modern-parenthood-roles-of-moms-and-dads-converge-as-they-balance-work-and-family/ (accessed 10/6/14)

Pickert, Kate. 2012, May 10. “Are You Mom Enough? Why Attachment Parenting Drives Some Mothers to Extremes—and How Dr. Bill Sears Became their Guru.” *Time Magazine*.

Raley, Sara. 2014. “Time Use, Inequality, and Child Well-Being.” Pp. 999-1031 in *Handbook of Child Well-Being: Theories, Methods and Policies in Global Perspective*, edited by Asher Ben-Arieh, Ferran Casas, Ivar Frønes, and Jill E. Korbin. Springer.

Raley, Sara, Suzanne M. Bianchi, and Wendy Wang. 2012. “When Do Fathers Care? Mothers’ Economic Contribution and Fathers’ Involvement in Child Care.” *American Journal of Sociology* 117(5): 1422-59.

Rizzo, Kathryn M., Holly H. Schiffrin, and Miriam Liss. 2013. "Insight into the Parenthood Paradox: Mental Health Outcomes of Intensive Mothering." *Journal of Child and Family Studies* 22(5): 614-20.

Ross, Catherine E. and Marieke Van Willigen. 1996. "Gender, Parenthood, and Anger." *Journal of Marriage and the Family* 58(3): 572-584.

Russell, James. A. 1980. “A Circumplex Model of Affect.” *Journal of Personality and Social Psychology* 39: 1161-78.

Russell, James A. 2003. "Core Affect and the Psychological Construction of Emotion." *Psychological Review* 110(1): 145-72.

Sayer, Liana. 2005. “Gender, Time and Inequality: Trends in Women’s and Men’s Paid Work, Unpaid Work and Free Time.” *Social Forces* 84(1): 285-303.

Sayer, Liana C., Suzanne M. Bianchi, and John P. Robinson. 2004. “Are Parents Investing Less in Children? Trends in Mothers’ and Fathers’ Time with Children.” *American Journal of Sociology* 110(1): 1-43.

Senior, Jennifer. 2010, July 4. “All Joy and No Fun.” *New York Magazine*.

Senior, Jennifer. 2014. *All Joy and No Fun: The Paradox of Modern Parenthood*. New York: HarperCollins.

Simon, Robin W. 1992. "Parental Role Strains, Salience of Parental Identity and Gender Differences in Psychological Distress." *Journal of Health and Social Behavior* 33(1): 25-35.

Simon, Robin W. 1995. "Gender, Multiple Roles, Role Meaning, and Mental Health." *Journal of Health and Social Behavior* 36(2): 182-94.

Simon, Robin W. and Leda E. Nath. 2004. "Gender and Emotion in the United States: Do Men and Women Differ in Self-Reports of Feelings and Expressive Behavior?" *American Journal of Sociology* 109(5): 1137-76.

Simon, Robin W. 2008. "The Joys of Parenthood, Reconsidered". *Contexts: Understanding People in Their Social Worlds.* 7(2): 40-5.

Stanca, Luca. 2012. "Suffer the Little Children: Measuring the Effect of Parenthood on Well-Being Worldwide." *Journal of Economic Behavior and Organization* 81: 742-50.

Stone, Arthur A. and Christopher Mackie. 2013. *Subjective Well-Being: Measuring Happiness, Suffering, and Other Dimensions of Experience.* National Research Council, Washington, DC. The National Academies Press.

Taylor, Paul, Kim Parker, Rich Morin, D'Vera Cohn, and Wendy Wang. 2013, June 14. "The New American Father." Pew Research Center, Washington, D.C. Available at http://www.pewsocialtrends.org/2013/06/14/the-new-american-father/ (accessed 10/6/14)

Thoits, Peggy A. 2010. "Stress and Health: Major Findings and Policy Implications." *Journal of Health and Social Behavior* 51(1): S41-S53.

Twenge, Jean M., W. Keith Campbell, Craig A. Foster. 2003. “Parenthood and Marital Satisfaction: A Meta-Analytic Review.” *Journal of Marriage and Family.* 65(3): 574-83.

Venn, Susan, Sara Arber, Robert Meadows, and Jenny Hislop. 2008. "The Fourth Shift: Exploring the Gendered Nature of Sleep Disruption among Couples with Children." *The British Journal of Sociology* 59: 79-97.

Wang, Wendy. 2013, October 8. "Parents' Time with Kids More Rewarding Than Paid Work—and More Exhausting." Pew Research Center, Washington, D.C. Available at http://www.pewsocialtrends.org/2013/10/08/parents-time-with-kids-more-rewarding-than-paid-work-and-more-exhausting/ (accessed 10/6/14)

Woo, Hyeyoung and R. Kelly Raley. 2005. “A Small Extension to “Costs And Rewards of Children: The Effects of Becoming a Parent on Adults’ Lives.” *Journal of Marriage and Family* 67: 216-21.

Yeung, W. Jean, John F. Sandberg, Pamela E. Davis-Kean, and Sandra L. Hofferth. 2001. "Children's Time with Fathers in Intact Families." *Journal of Marriage and Family* 63: 136-54.

NOTES

[1] Information on where and with whom the activities occurred is available for all activities except personal care and sleeping.

[2] Fertility histories are not asked in regular CPS rotations. It would be possible to link ATUS data to the 2008 and 2010 CPS June Fertility Supplement, in which women ages 15-44 were asked their number of live births and when their last child was born. This link would substantially reduce our sample size due to the CPS rotation pattern and the more restrictive age band.

[3] These include pain, which is less relevant to our investigation.

Table 1. Characteristics of men's and women's activities by whether child in household and present in activity (*N* activities=23,282)

	Men				Women			
	No child in HH	Child in HH	Child in HH: child not present	Child in HH: child present	No child in HH	Child in HH	Child in HH: child not present	Child in HH: child present
N (activities)	5086	5343	2944	2399	4749	8104	3670	4434
Mean affect rating of activities								
Happiness	4.04	4.25	4.01	4.79	4.08	4.34	4.08	4.66
	(1.48)	(1.73)	(1.57)	(1.81)	(1.47)	(1.86)	(1.68)	(1.99)
Meaning	4.08	4.50	4.34	4.86	4.23	4.52	4.28	4.81
	(1.67)	(1.86)	(1.7)	(2.06)	(1.64)	(2.15)	(2.03)	(2.19)
Sad	0.67	0.57	0.65	0.38	0.73	0.66	0.77	0.52
	(1.21)	(1.35)	(1.29)	(1.33)	(1.31)	(1.68)	(1.6)	(1.72)
Stress	1.58	1.68	1.94	1.10	1.89	1.78	2.03	1.48
	(1.56)	(1.94)	(1.77)	(2.03)	(1.79)	(2.23)	(2.05)	(2.38)
Fatigue	2.09	2.13	2.21	1.95	2.58	2.58	2.60	2.56
	(1.62)	(1.97)	(1.76)	(2.34)	(1.77)	(2.3)	(2.06)	(2.57)
Distribution of sampled activities--broad								
Market work	0.35	0.40	0.57	0.02	0.33	0.23	0.40	0.03
Care work	0.03	0.09	0.02	0.25	0.03	0.15	0.04	0.30
Nonmarket work	0.13	0.15	0.14	0.17	0.19	0.24	0.25	0.23
Leisure	0.48	0.36	0.27	0.57	0.45	0.37	0.32	0.44
Distribution of sampled activities--detailed								
Market work	0.35	0.40	0.57	0.02	0.33	0.23	0.40	0.03
Care work								
Care of adults	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Basic childcare	0.00	0.03	0.00	0.08	0.00	0.06	0.00	0.12
Playing with children	0.01	0.03	0.00	0.08	0.00	0.03	0.00	0.06
Teaching children	0.00	0.01	0.00	0.04	0.00	0.02	0.00	0.04
Childcare management	0.00	0.02	0.01	0.04	0.01	0.04	0.02	0.06
Nonmarket work								
Cooking	0.02	0.03	0.02	0.03	0.05	0.07	0.06	0.07
Cleaning	0.02	0.02	0.02	0.02	0.06	0.09	0.10	0.07
Shopping	0.03	0.05	0.04	0.07	0.04	0.06	0.04	0.07
Other nonmarket work	0.06	0.05	0.05	0.05	0.04	0.03	0.04	0.02
Leisure								
TV	0.13	0.09	0.06	0.15	0.13	0.09	0.06	0.11
Socializing, relaxing, downtime	0.18	0.13	0.10	0.20	0.17	0.13	0.12	0.15
Educational, religious, civic	0.04	0.03	0.02	0.04	0.04	0.04	0.04	0.04
Eating, drinking, personal	0.13	0.11	0.08	0.18	0.12	0.11	0.09	0.15
% activities in which others present								
Spouse/partner	0.11	0.28	0.13	0.61	0.15	0.20	0.11	0.31

Notes: 2010 ATUS well-being sample, men and women ages 21-55. N's are unweighted; means/percentages are weighted. Standard deviations in parentheses. HH = household.

Table 2. Diary day summary variables for men and women by whether child in household (*N* individuals=7,829)

	Men		Women	
	No child in HH	Child in HH	No child in HH	Child in HH
N (individuals)	1712	1797	1598	2722
Total hours sleep	8.36	8.17	8.70	8.54
	(2.05)	(2.26)	(2.05)	(2.42)
3+ sleep episodes	0.14	0.13	0.18	0.20
Total hours leisure	7.89	6.34	7.02	6.06
	(3.60)	(4.00)	(3.32)	(4.00)
Number episodes leisure	7.70	6.91	7.66	7.49
	(3.54)	(3.80)	(3.55)	(4.56)
Hours leisure with children only	0.11	0.99	0.17	1.45
	(.69)	(2.02)	(.94)	(2.42)

Notes : 2010 ATUS well-being sample, men and women ages 21-55. N's are unweighted; means/percentages are weighted. Standard deviations in parentheses. HH = household.

Table 3. Random effect models of subjective well-being in parenthood

	Happiness		Meaning		Sadness		Stress		Fatigue	
	M1	M2	M1	M2	M1	M2	M1	M2	M1	M2
Child in household	0.097*	0.040	0.297***	0.159**	-0.030	-0.013	0.076	0.051	0.024	-0.007
Female	0.074	0.094*	0.123*	0.119*	0.041	0.043	0.150**	0.142**	0.400***	0.372***
Child in household x female	-0.003	0.006	0.026	-0.000	-0.027	-0.023	0.061	0.029	0.048	0.015
Activity type (reference = TV)										
Market work		-0.310***		0.478***		0.123**		0.736***		-0.080
Care of adults		-0.014		0.744***		-0.012		0.319***		-0.161+
Cooking		-0.049		0.719***		-0.041		0.202***		-0.191***
Cleaning		-0.475***		0.212**		0.061		0.268***		0.060
Shopping		-0.147**		0.371***		-0.028		0.412***		-0.180**
Other nonmarket work		-0.058		0.852***		0.014		0.266***		-0.090
Socializing, relaxing, downtime		0.127**		0.885***		-0.022		0.090*		-0.229***
Educational, religious, civic		0.167**		1.416***		0.007		0.299***		-0.279***
Eating, drinking, personal		0.151***		0.896***		-0.030		0.203***		-0.251***
Basic childcare		0.430***		1.700***		-0.137***		0.279***		-0.011
Playing with children		0.937***		2.079***		-0.301***		-0.266***		-0.370***
Teaching children		0.521***		1.825***		-0.198***		0.258**		-0.149
Childcare management		0.098		1.278***		-0.014		0.375***		-0.288***
With spouse/partner		0.269***		0.363***		-0.070***		-0.097**		-0.059+
Total hours sleep		-0.020*		-0.022*		0.008		-0.034***		-0.061***
3+ sleep episodes		-0.163***		-0.048		0.174***		0.216***		0.350***
Total hours leisure		-0.005		-0.026***		0.010*		-0.018**		-0.036***
Number episodes leisure		-0.002		0.013*		-0.009*		-0.002		-0.013*
Hours leisure with children only		0.008		0.007		-0.000		-0.002		-0.008
Constant	3.989***	4.270***	3.474***	2.990***	0.361***	0.236*	1.400***	1.376***	2.233***	3.192***
sigma_u	1.111	1.095	1.205	1.181	1.023	1.017	1.289	1.277	1.396	1.383
sigma_e	1.161	1.141	1.457	1.403	0.877	0.876	1.200	1.188	1.276	1.272
rho	0.478	0.480	0.406	0.415	0.576	0.574	0.536	0.536	0.545	0.542

*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

Notes: 2010 ATUS well-being sample, men and women ages 21-55. *N* activities = 23,282; *N* individuals=7,859. Models 1 and 2 include individual-level controls for age, race/ethnicity, presence of spouse or partner, education, school enrollment, employment status, family income, season, and weekend day; they include activity-level controls for location, duration, and time of day.

Table 4. Random effect models of subjective well-being in parenting

	Happiness		Meaning		Sadness		Stress		Fatigue	
	M1	M2	M1	M2	M1	M2	M1	M2	M1	M2
With HH child	0.532***	0.317***	0.778***	0.462***	-0.164***	-0.098**	-0.156***	-0.040	-0.243***	-0.205***
Female	0.085+	0.106*	0.050	0.027	0.027	0.039	0.204***	0.191**	0.370***	0.334***
With HH child x female	-0.098+	-0.046	0.040	0.084	0.061	0.039	0.110+	0.031	0.175**	0.137*
Activity type (reference = TV)										
Market work		-0.295***		0.503***		0.164**		0.672***		-0.132+
Care of adults		-0.008		0.548**		0.173		0.394**		-0.117
Cooking		-0.083		0.777***		-0.056		0.202**		-0.138*
Cleaning		-0.540***		0.082		0.065		0.327***		0.091
Shopping		-0.138*		0.379***		0.045		0.485***		-0.144+
Other nonmarket work		-0.113		0.816***		0.070		0.398***		-0.067
Socializing, relaxing, downtime		0.136*		0.900***		0.035		0.068		-0.245***
Educational, religious, civic		0.237**		1.361***		0.069		0.325***		-0.218*
Eating, drinking, personal		0.133*		0.895***		-0.009		0.224***		-0.173**
Basic childcare		0.261***		1.465***		-0.071		0.331***		0.060
Playing with children		0.787***		1.838***		-0.230***		-0.258**		-0.263**
Teaching children		0.338***		1.591***		-0.128+		0.305**		-0.081
Childcare management		0.034		1.128***		0.027		0.372***		-0.216*
With spouse/partner		0.152***		0.207***		-0.049+		-0.065+		-0.037
Total hours sleep		-0.015		-0.011		-0.003		-0.044***		-0.070***
3+ sleep episodes		-0.181***		-0.063		0.206***		0.222***		0.327***
Total hours leisure		-0.002		-0.019*		0.008		-0.026**		-0.031***
Number episodes leisure		-0.004		0.014+		-0.008		0.001		-0.018*
Hours leisure with children only		-0.008		-0.014		0.003		0.001		-0.012
Constant	3.817***	4.124***	3.852***	3.345***	0.602***	0.495**	1.427***	1.457***	2.504***	3.486***
sigma_u	1.037	1.029	1.160	1.146	0.924	0.920	1.227	1.212	1.356	1.345
sigma_e	1.142	1.124	1.407	1.357	0.860	0.858	1.217	1.206	1.272	1.270
rho	0.452	0.456	0.405	0.417	0.536	0.534	0.504	0.502	0.532	0.529

*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

Notes: 2010 ATUS well-being sample, men and women ages 21-55 with a household chil*N* activities = 13,447; *N* individuals = 4,530. HH = household. Models 1 and 2 include individual-level controls for age, race/ethnicity, presence of spouse or partner, education, school enrollment, employment status, family income, season, weekend day, number of children, and age of youngest child; they include activity-level controls for location, duration, time of day, and cumulative time with children at activity initiation.

Table A1. Activity- and person-level controls for full sample, by whether child in household

	No child in HH	Child in HH
Individual-level controls (N individuals)	3,310	4,519
Age	38.76	38.25
	(10.08)	(9.11)
Race/ethnicity (reference = White, non-Hispanic)	68.76	65.64
Black, non-Hispanic	11.87	9.36
Hispanic	12.62	18.16
Other, non-Hispanic	6.76	6.83
Spouse or partner in the HH	45.67	84.96
College degree +	32.01	34.61
Enrolled in school	9.67	6.12
Employment status (reference = full-time)	64.80	61.79
Part-time work	12.67	15.09
No paid work	22.53	23.12
Household income (reference = <$25,000)	19.69	15.58
$25,000-$99,999	59.49	59.43
$100,000 +	17.58	21.56
Income missing	3.24	3.43
Season (reference = winter)	23.79	25.34
Spring	25.76	23.83
Summer	26.52	23.98
Fall	23.93	26.85
Diary day is weekend	26.88	27.75
Number of children in the HH (reference = 1 child)	0.00	39.38
2 children	0.00	40.59
3+ children	0.00	20.03
Age of youngest child (reference = <6)	0.00	47.57
6-12	0.00	32.21
13-17	0.00	20.22
Activity-level controls (N activities)	9,835	13,447
Where activity takes place (reference = in public)	29.75	28.17
At home	41.59	46.59
At work	28.66	25.24
Time spent in activity (hours)	3.05	2.59
	(2.42)	(2.77)
Time of day (reference = 4:00 a.m. - 8:59 a.m.)	9.98	12.02
9:00 a.m. - 1:59 p.m.	38.06	36.84
2:00 p.m. - 4:59 p.m.	22.67	22.66
5:00 p.m. - 8:59 p.m.	22.52	23.42
9:00 p.m. - 3:59 a.m.	6.77	5.06
Cumulative hours with children	0.00	2.70
	(0)	(3.74)

Notes: 2010 ATUS well-being sample, men and women ages 21-55. *N*'s are unweighted; means/percentages are weighted (using individual weights for individual-level and activity weights for activity-level). Standard deviations in parentheses. HH = household.

Table A2. Random effect models of subjective well-being in parenthood, full models

	Happiness	Meaning	Sadness	Stress	Fatigue
Child in household	0.040	0.159**	-0.013	0.051	-0.007
Female	0.094*	0.119*	0.043	0.142**	0.372***
Child in household x female	0.006	-0.000	-0.023	0.029	0.015
Activity type (reference = TV)					
Market work	-0.310***	0.478***	0.123**	0.736***	-0.080
Care of adults	-0.014	0.744***	-0.012	0.319***	-0.161+
Cooking	-0.049	0.719***	-0.041	0.202***	-0.191***
Cleaning	-0.475***	0.212**	0.061	0.268***	0.060
Shopping	-0.147**	0.371***	-0.028	0.412***	-0.180**
Other nonmarket work	-0.058	0.852***	0.014	0.266***	-0.090
Socializing, relaxing, downtime	0.127**	0.885***	-0.022	0.090*	-0.229***
Educational, religious, civic	0.167**	1.416***	0.007	0.299***	-0.279***
Eating, drinking, personal	0.151***	0.896***	-0.030	0.203***	-0.251***
Basic childcare	0.430***	1.700***	-0.137***	0.279***	-0.011
Playing with children	0.937***	2.079***	-0.301***	-0.266***	-0.370***
Teaching children	0.521***	1.825***	-0.198***	0.258**	-0.149
Childcare management	0.098	1.278***	-0.014	0.375***	-0.288***
With spouse/partner	0.269***	0.363***	-0.070***	-0.097**	-0.059+
Total hours sleep	-0.020*	-0.022*	0.008	-0.034***	-0.061***
3+ sleep episodes	-0.163***	-0.048	0.174***	0.216***	0.350***
Total hours leisure	-0.005	-0.026***	0.010*	-0.018**	-0.036***
Number episodes leisure	-0.002	0.013*	-0.009*	-0.002	-0.013*
Hours leisure with children only	0.008	0.007	-0.000	-0.002	-0.008
Individual-level controls					
Age	-0.001	0.015***	0.015***	0.005**	-0.004*
Race/ethnicity (reference = White, non-Hispanic)					
Black, non-Hispanic	0.320***	0.594***	-0.009	-0.161**	-0.223***
Hispanic	0.291***	0.475***	0.201***	0.028	-0.105*
Other, non-Hispanic	0.205**	0.382***	0.041	-0.079	-0.251***
Spouse or partner in the HH	0.169***	0.083+	-0.155***	-0.139**	-0.035
College degree +	-0.133***	-0.328***	-0.024	0.089*	-0.044
Enrolled in school	-0.106+	0.033	0.002	0.232***	0.252***
Employment status (reference = full-time)					
Part-time work	-0.053	-0.015	0.071+	0.113*	-0.085
No paid work	-0.208***	-0.097*	0.263***	0.350***	-0.014
Household income (reference = <$25,000)					
$25,000-$99,999	-0.007	-0.112*	-0.240***	-0.155**	-0.095+
$100,000 +	-0.020	-0.216***	-0.313***	-0.192**	-0.227***
Income missing	0.114	-0.089	-0.185*	-0.102	-0.221*
Season (reference = winter)					
Spring	0.021	-0.055	-0.009	0.003	0.086+
Summer	-0.014	-0.040	-0.068+	-0.060	0.058
Fall	0.031	-0.010	-0.004	0.030	0.076
Diary day is weekend	0.180***	0.049	-0.045	-0.152***	-0.072+
Activity-level controls					
Where activity takes place (reference = in public)					
At home	-0.174***	-0.027	0.006	0.058*	0.195***
At work	-0.245***	0.023	0.002	0.376***	-0.016
Time spent in activity (hours)	0.017**	0.094***	0.011*	0.056***	0.010
Time of day (reference = 4:00 a.m. - 8:59 a.m.)					
9:00 a.m. - 1:59 p.m.	0.092**	-0.088*	-0.042+	-0.022	-0.138***
2:00 p.m. - 4:59 p.m.	0.073*	-0.163***	-0.074**	-0.015	0.187***
5:00 p.m. - 8:59 p.m.	0.092**	-0.094**	-0.045+	-0.122***	0.497***
9:00 p.m. - 3:59 a.m.	-0.028	-0.270***	-0.067+	-0.174***	1.066***
Constant	4.270***	2.990***	0.236*	1.376***	3.192***
sigma_u	1.095	1.181	1.017	1.277	1.383
sigma_e	1.141	1.403	0.876	1.188	1.272
rho	0.480	0.415	0.574	0.536	0.542

*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

Notes: 2010 ATUS well-being sample, men and women ages 21-55. *N* activities = 23,282; *N* individuals=7,859. Results for M2, as shown in summary form in Table 3.

Table A3. Random effect models of subjective well-being in parenting, full models

	Happiness	Meaning	Sadness	Stress	Fatigue
With HH child	0.317***	0.462***	-0.098**	-0.040	-0.205***
Female	0.106*	0.027	0.039	0.191**	0.334***
With HH child x female	-0.046	0.084	0.039	0.031	0.137*
Activity type (reference = TV)					
Market work	-0.295***	0.503***	0.164**	0.672***	-0.132+
Care of adults	-0.008	0.548**	0.173	0.394**	-0.117
Cooking	-0.083	0.777***	-0.056	0.202**	-0.138*
Cleaning	-0.540***	0.082	0.065	0.327***	0.091
Shopping	-0.138*	0.379***	0.045	0.485***	-0.144+
Other nonmarket work	-0.113	0.816***	0.070	0.398***	-0.067
TV	0.000	0.000	0.000	0.000	0.000
Socializing, relaxing, downtime	0.136*	0.900***	0.035	0.068	-0.245***
Educational, religious, civic	0.237**	1.361***	0.069	0.325***	-0.218*
Eating, drinking, personal	0.133*	0.895***	-0.009	0.224***	-0.173**
Basic childcare	0.261***	1.465***	-0.071	0.331***	0.060
Playing with children	0.787***	1.838***	-0.230***	-0.258**	-0.263**
Teaching children	0.338***	1.591***	-0.128+	0.305**	-0.081
Childcare management	0.034	1.128***	0.027	0.372***	-0.216*
With spouse/partner	0.152***	0.207***	-0.049+	-0.065+	-0.037
Total hours sleep	-0.015	-0.011	-0.003	-0.044***	-0.070***
<3 sleep episodes	0.000	0.000	0.000	0.000	0.000
3+ sleep episodes	-0.181***	-0.063	0.206***	0.222***	0.327***
Total hours leisure	-0.002	-0.019*	0.008	-0.026**	-0.031***
Number episodes leisure	-0.004	0.014+	-0.008	0.001	-0.018*
Hours leisure with children only	-0.008	-0.014	0.003	0.001	-0.012
Individual-level controls					
Age	0.002	0.006	0.009**	0.004	-0.010*
Race/ethnicity (reference = White, non-Hispanic)					
Black, non-Hispanic	0.261***	0.452***	-0.020	-0.223*	-0.212*
Hispanic	0.300***	0.460***	0.196***	-0.001	-0.143*
Other, non-Hispanic	0.250**	0.370***	0.106	-0.094	-0.269**
Spouse or partner in the HH	0.255***	0.094	-0.191***	-0.290***	-0.029
College degree +	-0.153***	-0.309***	-0.023	0.092*	-0.032
Enrolled in school	-0.125	0.116	0.061	0.285**	0.369***
Employment status (reference = full-time)					
Part-time work	-0.068	-0.010	-0.023	0.044	-0.082
No paid work	-0.111*	-0.068	0.135**	0.176**	-0.117+
Household income (reference = <$25,000)					
$25,000-$99,999	-0.065	-0.210**	-0.271***	-0.057	-0.022
$100,000 +	-0.088	-0.290***	-0.285***	-0.091	-0.153+
Income missing	-0.085	-0.087	-0.157	0.025	-0.105
Season (reference = winter)					
Spring	-0.050	-0.108+	0.057	0.053	0.041
Summer	-0.019	-0.006	-0.052	-0.026	-0.006
Fall	0.033	0.016	-0.011	0.048	-0.021
Diary day is weekend	0.142***	-0.031	-0.023	-0.112*	-0.076
Number of children in the HH (reference = 1)					
2 children	-0.061	0.038	0.068+	0.192***	-0.020
3+ children	-0.009	0.062	-0.020	0.190**	-0.019
Age of youngest child (reference = <6)					
6-12	-0.061	-0.016	0.063	0.019	0.039
13-17	-0.080	0.056	0.071	0.028	-0.013
Activity-level controls					
Where activity takes place (reference = in public)					
At home	-0.095**	-0.002	0.018	0.052	0.216***
At work	-0.130*	0.152*	-0.043	0.345***	-0.060
Time spent in activity (hours)	0.013	0.102***	0.015*	0.059***	0.026*
Time of day (reference = 4:00 a.m. - 8:59 a.m.)					
9:00 a.m. - 1:59 p.m.	0.073+	-0.111*	-0.025	0.046	-0.202***
2:00 p.m. - 4:59 p.m.	0.087*	-0.188***	-0.042	0.064	0.161**
5:00 p.m. - 8:59 p.m.	0.079+	-0.106*	0.042	-0.012	0.497***
9:00 p.m. - 3:59 a.m.	0.037	-0.181*	-0.038	-0.017	1.062***
Cumulative hours with children	-0.007	-0.018**	-0.010*	-0.013*	0.016*
Constant	4.124***	3.345***	0.495**	1.457***	3.486***
sigma_u	1.029	1.146	0.920	1.212	1.345
sigma_e	1.124	1.357	0.858	1.206	1.270
rho	0.456	0.417	0.534	0.502	0.529

*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

Notes: 2010 ATUS well-being sample, men and women ages 21-55 with a household child. *N* activities = 13,447; *N* individuals = 4,530. HH = household. Results for M2, as shown in summary form in Table 4.