

Marital Status and Mothers' Time Use: Childcare, Housework, Leisure, and Sleep

Joanna R. Pepin¹ · Liana C. Sayer² · Lynne M. Casper³

Published online: 8 February 2018
© Population Association of America 2018

Abstract Assumptions that single mothers are “time poor” compared with married mothers are ubiquitous. We tested theorized associations derived from the time poverty thesis and the gender perspective using the 2003–2012 American Time Use Surveys (ATUS). We found marital status differentiated housework, leisure, and sleep time, but did not influence the amount of time that mothers provided childcare. Net of the number of employment hours, married mothers did more housework and slept less than never-married and divorced mothers, counter to expectations of the time poverty thesis. Never-married and cohabiting mothers reported more total and more sedentary leisure time than married mothers. We assessed the influence of demographic differences among mothers to account for variation in their time use by marital status. Compositional differences explained more than two-thirds of the variance in sedentary leisure time between married and never-married mothers, but only one-third of the variance between married and cohabiting mothers. The larger unexplained gap in leisure quality between cohabiting and married mothers is consistent with the gender perspective.

Keywords Marital status · Mothers · Race/ethnicity · Time use · Gender

Electronic supplementary material The online version of this article (<https://doi.org/10.1007/s13524-018-0647-x>) contains supplementary material, which is available to authorized users.

✉ Joanna R. Pepin
jpepin@umd.edu

¹ Department of Sociology, University of Maryland, 3108 Parren Mitchell Building, College Park, MD 20742, USA

² Department of Sociology, University of Maryland, 4133 Parren Mitchell Building, College Park, MD 20742, USA

³ Department of Sociology, University of Southern California, 851 Downey Way HSH313, Los Angeles, CA 90089, USA

Introduction

The widespread assumption that unmarried mothers are “time poor” as well as income poor stems from the time poverty thesis that unmarried mothers are doubly disadvantaged by the absence of a spouse (Craig 2005). Early formulations of the time poverty thesis assumed specialization in marriage and posited that unmarried mothers’ time disadvantage stemmed from their necessary hours in paid work added on top of equivalent household responsibilities (Vickery 1977). Partnered mothers were theorized to benefit from sharing paid work and family responsibilities with their partners, instead of undertaking all labor themselves. Moreover, married women’s comparative advantage of specializing in unpaid work while their spouses specialize in paid work theoretically yields optimal levels of household production and leisure time for both spouses (Becker 1981; Kimmel and Connelly 2007).

Empirical studies have offered mixed support for the time poverty thesis. Some studies have found that unmarried mothers spend more time than married mothers in paid work (Craig 2005; Kendig and Bianchi 2008; Sanik and Mauldin 1986; Sayer et al. 2004). Contrary to the time poverty thesis, studies also reported that unmarried mothers spend equivalent amounts of time on childcare activities and less time on housework compared with married mothers, net of employment hours (e.g., Sayer et al. 2004). Both the weak evidence for the time poverty thesis and asymmetrical changes in time use over the past 40 years—with married mothers’ labor force participation rates converging with those of single mothers—suggest the need for a reexamination of assumptions that unmarried mothers are time poor relative to married mothers (Hoffman 2009). According to the Current Population Survey, approximately 68 % of married and 70 % of unmarried mothers ages 18–54 with coresidential children were employed in 2016. Approximately 54 % of married mothers and 60 % of unmarried mothers reported that they worked full-time in the previous year (Flood et al. 2015). Full-time employment among married mothers is now normative, and the economic benefits of marriage increasingly flow from married spouses sharing the consumption of public goods and leisure activities (Stevenson and Wolfers 2007). Consequently, assumptions that single mothers have less time for housework and childcare than married mothers because single mothers devote more time to paid work are no longer tenable.

A comprehensive accounting of variation in mothers’ time is needed because single motherhood has persistent associations with social, economic, and health disparities (Williams et al. 2011). Mechanisms related to variation in leisure time by marital status may be particularly important to disentangle. Leisure time provides a measurable but understudied indicator of discretionary time, which has implications for social isolation, mental and physical health, and overall life satisfaction (Bird and Rieker 2008; Bittman 2002; Kahneman and Krueger 2006; Miller and Brown 2005). One study reported that single mothers’ leisure is more likely to be sedentary and concentrated in socially isolated activities, such as watching television alone (Passias et al. 2017), and two time diary studies documented less leisure for married mothers compared with single mothers (Bittman and Wajcman 2000; Mattingly and Bianchi 2003). These studies were limited in their ability to assess the influence of marital status on patterns of time use because they considered leisure in isolation from other domains of time use and did not consider compositional differences of mothers by marital status.

This study contributes a fuller understanding of marital status variation in four major domains of time use (childcare, housework, leisure, and sleep) and in the mechanisms that produce these differences. Specifically, two mechanisms other than having less available time because of the absence of a spouse could produce marital status variation in mothers' time use patterns. First, according to the gender perspective, married mothers should allocate time differently than unmarried mothers because families are sites where men and women perform gender by engaging in behaviors that symbolize femininity and masculinity (Berk 1985; Cooke and Baxter 2010). Second, differential selection of women by age, education, and race/ethnicity into marriage may account for some variation in mothers' time use (Casper and Bianchi 2002; South and Spitze 1994). In sum, this research uses nationally representative data from the 2003–2012 American Time Use Surveys to examine variation in mothers' time allocations across major time use domains, accounting for the influence of time poverty stemming from the absence of a spouse, gendered dynamics associated with the presence of a heterosexual male partner, and compositional differences between mothers.

In the following sections, we develop theoretical propositions on time use variation from a gender perspective and contrast these with theoretical predictions from the time poverty thesis. We also describe demographic differences between mothers by marital status and how these might influence variation in mothers' time use. Next, we test these propositions using multivariate regressions that investigate how mothers' time in childcare, housework, sleep, and leisure varies by marital status. We then focus on marital status variations in the overall quantity and type of leisure—outcomes associated with potential health and social benefits. Finally, we examine how economic and demographic characteristics that systematically vary with marital status influence mothers' leisure patterns. To do so, we use decomposition techniques to determine how much of the marital status leisure variation is associated with differences in the compositional characteristics of women who are never married, divorced, cohabiting, or married.

Gender and Marital Status

Our conceptual approach examines predictions from a time poverty perspective and the gender perspective (Ferree 2010; Sayer 2010). According to a gender perspective, gender functions at the individual, interactional, cultural, and institutional levels in ways that motivate and constrain behaviors in intimate relationships (Bittman et al. 2003; West and Zimmerman 1987). Social prescriptions for gendered behavior affect time allocations of all women (and men) regardless of their marital status (Ridgeway 2006, 2011). As a gendered institution, though, marriage provides a 24/7 stage for performing gender (South and Spitze 1994; West and Zimmerman 1987).

Whereas theories of household specialization suggest mothers' greater time spent on housework relative to male partners stems from a combination of individual choice and bargaining processes that yield efficient divisions of labor (Becker 1981; Coverman 1985), internalized beliefs that household activities are symbolic expressions of love point to the ways "doing gender" is layered throughout these processes (England 1993; West and Zimmerman 1987:126). Although specialization in paid and household work are aspects of gendered behavior that help account for gender disparities in household work, findings that wives with greater work hours and higher earnings do more

housework relative to their husbands and that gender has stronger influences than these resource factors offer support for a gender perspective (Hook 2017). Further, interhousehold specialization cannot account for differences in household or leisure time between *single* women and men. Compared with men, women do more housework and care work, regardless of marital status (Bianchi et al. 2000; Casper and Bianchi 2010; Sayer 2005, 2016; South and Spitze 1994; Vernon 2010).

Unpaid Labor: Housework and Care Work

A gender perspective and theories of specialization predict a positive association of marital status with housework: partnered women are likely to do more housework relative to unmarried women. Societal norms about marriage emphasize the importance of daily rituals like home-cooked family dinners, requiring home labor that is both instrumental and symbolic of women's femininity (Bianchi and Milkie 2010; DeVault 1991). Women increase housework time when they move into cohabiting or marital relationships and decrease housework time when they exit relationships, net of employment transitions (Ferree 1991, 2010; Gupta 1999). Transitions into parenthood among married couples increase mothers' household and care work and reduce fathers' household work, even among couples with egalitarian patterns before the birth of the child (Baxter et al. 2008; Grunow et al. 2012; Gupta 1999; Sayer 2016). Together, these findings suggest housework symbolizes appropriate behaviors for women in heterosexual relationships (Ferree 1991, 2010).

Our argument is not that single mothers do less housework than partnered mothers because they are more likely to replace housework for paid work or childcare time compared with married mothers, but that the difference in situational demands of doing gender through housework should lead to less housework time for single mothers relative to partnered mothers. Although family work is gendered and single mothers, like married mothers, do housework and childcare for instrumental and symbolic reasons, marriage remains a gendered institution that ratchets up the demand for housework and childcare through essentialist beliefs that women are naturally focused on home and hearth (Charles and Bradley 2009). Marriage, as a gendered institution, provides daily, on-demand opportunities to perform gender by doing housework, whereas women in other types of households have fewer daily interactions in which they are held accountable for performing gender (South and Spitze 1994).

The time poverty thesis suggests that married and cohabiting mothers should have similar time allocations because each has a partner who can contribute paid and unpaid work to the family. Evidence is mixed on whether couples who desire a more specialized division of labor select into marriage, or if instead the institution of marriage constrains options in ways that push women and men into specialization of domestic work (Cooke and Baxter 2010). Cohabitors are more likely to explicitly reject gendered expectations (Ortyl 2013) and to reduce time investments in the family because of concerns about the future of the relationship (Brines and Joyner 1999; Davis et al. 2007). Despite the fact that cohabitators are more likely to resemble their married counterparts than in the past, cohabitation remains less institutionalized than marriage (Cherlin 2004). Together, this research suggests that compared with cohabitation, marriage is associated with intensified gendered behavior. Hence, in keeping with the gender perspective and in contrast to the time poverty thesis, we anticipate that married mothers will do more housework than

cohabiting mothers, all else being equal. Married women may specialize in household tasks more than cohabiting women because marriage offers legal protection against the economic risks of specialization, but also because “homemaking” is a more central ingredient for successful accomplishment of the gendered role of “wife” than for “cohabiting partner” (Shelton and John 1993). Gender-neutral specialization models posit that married women will spend more time in housework and less time in paid work relative to other women (and men) because this division of labor maximizes household utility. The gendered perspective posits that married women will spend more time in housework than other women (and men), even when paid work hours are similar, because housework performance reinforces gendered marital roles.

Studies have documented far less variation in childcare time by marital status. Some of the theoretical perspectives that have been useful in studying housework are more difficult to translate to childcare because childcare is more enjoyable and sometimes viewed as leisure (Kimmel and Connelly 2006; Raley and Bianchi 2006). Studies also suggest that married mothers do not trade time in childcare with fathers for other activities; instead, much of fathers' childcare time is shared with mothers (Bianchi et al. 2006; Craig 2006; Hallberg and Klevmarken 2003). Therefore, it can less often be assumed that mothers want to bargain out of rearing their children or prioritize other activities over childcare (Raley et al. 2012). One older study showed that married and unmarried mothers, as well as employed and non-employed mothers, spend similar amounts of time communicating with their children and attending to their emotional needs (Sanik and Mauldin 1986). More recent scholarship has found mothers who are single spend slightly less time with their children compared with married mothers, although the variation was largely accounted for by adjusting for other variables, such as economic status (Kendig and Bianchi 2008).

Because parenting behaviors are so strongly associated with norms of femininity, gendered expectations and identities may produce similar levels of childcare time among mothers regardless of the presence of a male partner (Biblarz and Stacey 2010; Christopher 2012; Damaske 2011b). Mothers without a partner may seek to refute discourses that characterize single mothers as irresponsible or shiftless through increased investments in activities deemed societally valuable, like paid work and childcare (Hancock 2004; Levine 2013). All mothers, single and partnered, are expected to adhere to expectations embedded in the social role of mother that require time-intensive devotion to children (Christopher 2012; Hays 1996). Accordingly, we anticipate small, if any, associations of marital status with childcare time, net of controls. By contrast, the time poverty thesis suggests that the presence of a partner means that partnered mothers are likely to spend less time with children compared with single mothers because they have an extra set of hands available to accomplish childcare tasks.

Leisure and Sleep

Time poverty and specialization perspectives predict a positive association of marital status with leisure and sleep: single women should have less leisure and sleep compared with partnered women because single women must spend more time doing paid and household work, leaving less time available for other activities. In contrast, the gender perspective predicts a negative association of marital status with leisure and sleep. Despite married mothers' increased labor force participation, they remain

primarily responsible for all necessary household and care work (Bianchi et al. 2012). Married mothers report feeling they must attend to caring for husbands and children before taking time for leisure, which may result in shortfalls of leisure time for married mothers compared with other mothers (Craig and Mullan 2013; Gornick and Meyers 2009; Henderson 1990; Mattingly and Bianchi 2003; Sayer 2005; Shaw 2008; Wearing and Wearing 1988). Married mothers report less leisure than single mothers, combine leisure with care of children and housework more than single mothers, and engage in less physically active and social leisure than women without children (Bianchi et al. 2006; Passias et al. 2017). What most prior research has not addressed is how married mothers' leisure time disparities relate to variation in time spent in housework, childcare, and sleep compared with other mothers. One study suggests that married mothers ensure adequate time for childcare and, to a lesser extent, housework by cutting back on leisure and sleep (Bianchi and Milkie 2010).

Studies of sleep are uncommon and focus on differences between men and women. Gender differences in employment account for higher average sleep among women, with comparisons by gender and employment status showing that women report less sleep except among individuals working 8 or more hours per day (Burgard and Ailshire 2013). Women's sleep is more often disturbed by partners or children compared with men's sleep, and feelings of time stress seem to negatively affect sleep quality more strongly among women than men (Burgard and Ailshire 2013; Maume et al. 2010). It is unclear whether similar disparities emerge when comparing mothers by marital status. Mothers who are employed full-time tend to cut back on sleep to ensure sufficient time for childcare, but there does not seem to be a significant gap in married and single mothers' sleep time (Bianchi et al. 2006). Therefore, compromises regarding time spent in housework, and potentially childcare, may be with leisure and, to a lesser extent, sleep.

Demographic Differences by Marital Status

Differential selection of women—such as by education and race/ethnicity—into marriage also contributes to marital status variation in mothers' time use. Even though cohabitation is common across all education levels and racial/ethnic groups, advantaged women increasingly choose marriage and are more likely to delay parenthood until after marriage (Bumpass and Lu 2000; Schoen and Cheng 2006; Smock 2000). Black women are the least likely racial group to get married, having about half the marriage rates of Latinas, whites, and Asians (Cohen 2014). Black, non-college-educated, and low-income women are also less likely to transition into cohabitation or marriage after a pregnancy (Lichter et al. 2014; Manning and Smock 2002). Compared with married mothers, single and cohabiting mothers are younger, slightly more likely to be employed but less likely to be employed in professional or managerial occupations, less likely to have a college education, and less likely to be white (Cohn et al. 2014; Kennedy and Bumpass 2008). We aim to assess the influence of these demographic differences in explaining marital status variation in mothers' time use. We focus on three key demographic differences among mothers: (1) the contribution of family composition, (2) employment hours as a measure of time availability, and (3) social advantages related to race and education.

First, household composition, such as adults other than partners in the household and the number and ages of children present, can affect mothers' time use. The number and ages of children are central predictors of parents' time spent providing childcare, with the presence of younger and more children increasing time engaged in childcare activities (Sandberg and Hofferth 2001; Sayer 2016; Zick and Bryant 1996). On average, married mothers have slightly more of their own children living in their household compared with other mothers (U.S. Census Bureau 2015), potentially associated with their higher levels of childcare time. However, compared with married mothers, single and cohabiting mothers tend to have younger children residing with them, which may result in higher quantities of childcare time (Vespa et al. 2013). Childcare is also determined by custodial arrangements, altering the time that divorced mothers are able to spend providing care for their children (Sandberg and Hofferth 2001). Moreover, estimates suggest that 36 % of single mothers live in their parent's home at some point while raising their children (Casper et al. 2016), and 16 % of children in single-parent families have a grandparent living with them (Livingston 2013). Other adult family members could affect mothers' time use depending on whether another adult contributes time to housework or childcare and thus is a resource, or whether instead they require care. Measuring living arrangements directly provides a better indicator of the presence or absence of other adults than marital status alone, making it an important consideration in analyzing mothers' time allocations.

Second, other demographic factors that could account for marital status differences in time use are those related to time availability. Non-employed and part-time employed women devote significantly more time to housework, childcare, and sleep compared with those who are employed full-time, whereas higher educational attainment and increased employment hours decrease time spent in leisure activities (Sayer 2016). Married mothers make up two-thirds of all non-employed mothers (Cohn et al. 2014), which potentially increases their time spent in childcare activities compared with other mothers. Yet, stay-at-home mothers spend much of their days in activities not related to childcare because children are often unavailable (e.g., in school, napping), and employed mothers tend to prioritize childcare over discretionary activities (Bianchi et al. 2006; Nock and Kingston 1988). Unmarried mothers historically were more likely to be employed, particularly full-time, compared with married mothers, but differences between married and unmarried mothers have narrowed in recent decades (Sayer et al. 2004). Thus, time constraints from employment may be similar for all mothers, no matter their marital status.

Third, race and education differences in mothers' time allocations are well documented. Given the high correlation between race and single motherhood in the United States (Sweeney and Raley 2014), variation in mothers' time use may be a reflection of disparities in socioeconomic backgrounds that vary systematically by marital status. White and black women do less housework compared with Asian and Latina women (Sayer and Fine 2011). Never-married mothers are more likely than married mothers to live in housing that lacks conveniences like on-site washers and dryers and large refrigerators (Desmond 2016); therefore, we might expect the time demands of doing laundry, grocery shopping, and cooking to be greater for never-married mothers. More-educated mothers engage in time-intensive parenting practices, such as coordinating multiple extracurricular activities for children (Lareau 2003; Macdonald 2010). Although all mothers may adhere to intensive mothering ideals (Damaske 2011b), some

research has found black mothers spend less time with their children compared with white mothers, net of other controls (Milkie et al. 2004).

We anticipate that compositional differences between single and married mothers will have particularly strong associations with specific leisure activities. Race and education influence the quantity and quality of leisure, such that black, Hispanic, and less-educated mothers have higher total leisure time and higher levels of sedentary leisure compared with white and college-educated mothers, net of controls (Passias et al. 2017). These differences are associated with the concentration of black, Hispanic, and less-educated mothers in neighborhoods with fewer recreational amenities, lower objective and perceived safety levels, and resource constraints on opportunities to engage in recreational activities outside the home (Crespo et al. 2000; Ray 2014, 2015; van der Ploeg et al. 2010). Consequently, correlations between race, education, and marital status may result in single mothers reporting less active and socially engaging leisure activities than married mothers, who are likely to live in more-resourced neighborhoods.

To summarize, we compare the time allocation of married, never-married, cohabiting, and divorced mothers. We pay particular attention to mothers' leisure time, which has implications for mothers' health and well-being (Bird and Rieker 2008; Jacobs and Gerson 2004; Mattingly and Bianchi 2003; McLanahan 2004). First, we investigate whether the presence of a male partner in the household appears to act as an added time resource for mothers (time poverty thesis) or whether a male partner in the household is associated with higher levels of housework and less time for leisure (gender perspective). Second, we isolate the role of compositional differences in differentiating time use patterns by marital status, because patterns attributed to marital status may be due to the systematic sorting of women with different demographic and economic characteristics into the status of married, cohabiting, divorced, and never married—an important consideration not addressed in other studies.

Data and Methods

Our analyses use time diary data from the 2003 through 2012 American Time Use Surveys (ATUS). The ATUS sample is drawn from outgoing rotations of the Current Population Surveys (CPS). The surveys are specifically designed to gather nationally representative data on how adults allocate time to paid work, unpaid work, self-care, and leisure (Bureau of Labor Statistics 2015). ATUS data are collected by computer-assisted telephone interviews in which respondents report their activities in the previous 24 hours. Activities are coded according to specific coding rules developed by ATUS, which reduces bias from inconsistent classification. We pool data from the 2003–2012 surveys to maximize sample size and minimize noise from random fluctuations in time use. Sensitivity analyses (not shown) indicate that differences are similar for single years of data and when data are divided into prerecession (2003–2007), recession (2008–2009), and postrecession periods (2010–2012). Response rates over this period range between 52.5 % and 57.8 % each year (Bureau of Labor Statistics 2015).

Our sample consists of 23,088 mothers aged 18–54 with coresidential children under age 13. We focus on mothers with children under 13 years old because childcare activities in the ATUS are captured for younger children but not for older children. We

limit the age range to 18–54 years old to focus on adults in prime work and family life stages. This minimizes influences of unobserved differences in mothers' circumstances, decision making, and behavioral dispositions that are not measured in ATUS data. Time use patterns of younger and older mothers are less standardized than prime working-age mothers. Young mothers (those under the age of 18) have substantively different experiences than adult mothers, whereas older mothers (those older than 54) may have health limitations and be transitioning into retirement (Cohn et al. 2014; Sayer et al. 2015). Additionally, the sample size of mothers older than 54 who have children 12 or younger is under 150, which is too small for analyses when categorized by marital status. We limit the sample to white, black, and Hispanic mothers; we exclude Asian and other race mothers as well as widows because of the small number of mothers across these categories.

Dependent Variables

Our primary dependent variables are four summary measures that indicate mothers' reported minutes per day spent in housework, childcare, sleep, and leisure on the diary day, and three measures of time in social, active, and sedentary leisure activities (see Tables S1 and S2, Online Resource 1). Housework activities comprise time cooking, cleaning, doing laundry, grocery shopping, household paper work (e.g., bill paying, banking), exterior cleaning, yard work, and household maintenance. Childcare activities include physical care (feeding, bathing, soothing young children), general supervision, children's health care, helping and teaching, reading and playing, and driving children to activities. Sleep time includes sleeplessness and time asleep.

We construct a summary measure of all leisure and disaggregate leisure into three mutually exclusive subcategories: (1) social activities, including socializing with others and going to entertainment and arts events; (2) active leisure, including physical exertion (e.g., sports or exercise) and cognitive effort (e.g., reading); and (3) sedentary leisure that mostly consists of television viewing, as well as small amounts of time relaxing and listening to music (see Table S2, Online Resource 1). We also use the "with whom" information on the time diary to determine time watching television alone from time watching television with others, because the solo or shared nature of television viewing offers an indicator of social isolation. This conceptualization of leisure activities builds on work showing that individuals report less positive affect during time they are watching television and lower life satisfaction (Frey et al. 2007; Kahneman et al. 2004). More time watching television, particularly done alone, is also linked with reduced mental health (Berkman and Glass 2000).

Independent Variables

Marital status is the independent variable of primary interest. We classify mothers into four distinct categories: currently in a heterosexual marriage (72 %); never married (13 %); cohabiting with a male partner (5 %); and divorced or separated (10 %). Married mothers are the reference group for our regression analyses.

In addition, we include other independent variables that represent demographic characteristics that have been shown to influence mothers' time use (Kendig and Bianchi 2008): family structure, education, mother's employment, and race/ethnicity.

We include three dichotomous *family structure variables*: presence of an extended adult family member, presence of a child under the age of 2, and presence of a child aged 2–5 years old. Other adult family members affect time use in different ways, depending on whether the adult contributes time to housework or childcare and thus is a resource, or instead the adult requires care. We also include a continuous measure of the number of children in the household to further account for the increased demand more children have on mothers' housework and childcare time.

Education is constructed as a categorical variable: less than a high school diploma/GED; high school diploma/GED; some college education or an associate's degree; and bachelor's degree or more. *Mothers' employment status* is divided into three groups that reflect time availability: employed full-time, employed part-time, and non-employed. We classify part-time employment as working 34 or fewer hours per week and full-time employment as working 35 or more hours per week. Mothers are considered non-employed if they are either looking for work or not in the labor force. We also estimated models with a continuous measure of usual employment hours that show similar associations. We use the categorical measures of employment hours because about 2,000 mothers have variable usual work hours or have missing data on usual work hours.

Because employment may be endogenous, we estimated a series of ordinary least square (OLS) regression models that omitted employment status for our sample of mothers, separate models for employed mothers and mothers not in the labor force, and models for a subsample of mothers employed full-time. The coefficients across the various models were similar, and the general conclusions apply across the various samples. The sociological literature suggests that employment is normative for all mothers, and the overwhelming majority of young women anticipate remaining employed across their life course, regardless of their marital and parental status (Damaske 2011a; Gerson 2011; Sayer et al. 2011). We believe any downward bias from the potential endogeneity of employment is modest.

Race/ethnicity is divided into three mutually exclusive categories: white, Non-Hispanic (64 %); black, non-Hispanic (13 %); and Hispanic of any race (23 %). To adjust for the life stage of our mothers, we include age as a continuous measure. We control for completion of the time diary on a weekday or a weekend to account for time variation on the weekends.

Plan of Analysis

First, we present bivariate statistics of the dependent and independent variables by mothers' marital status. Second, we show OLS regression analyses of mothers' time use in four primary activities: childcare, housework, sleep, and leisure. Although our childcare, housework, and leisure time use dependent variables contain zeros and thus are not normally distributed, OLS models produce unbiased coefficients and are preferable to Tobit, two-part, or negative binominal regression approaches (Stewart 2013). We analyze total leisure time and estimate separate regressions predicting time in social, active, and sedentary leisure, and time in solo and shared television viewing. Our focus is on how mothers' time varies by marital status net of other factors known to be correlated with time use. For all analyses, we use person-level and replicate weights to account for the complex survey design of the ATUS (Bureau of Labor Statistics 2015).

To understand variation in leisure time by marital status, we then conduct Oaxaca-Blinder decomposition analyses to identify the contribution of compositional differences and behavioral differences (Jann 2008). We use this counterfactual methodological approach to analyze the proportion of the variation in leisure time that is explained by a set of factors that vary systematically with marital status. For example, variations in leisure may be explained by systematic variations in education, household composition, employment, age, and race/ethnicity that exist for different marital statuses. Oaxaca-Blinder decomposes the *gap* in the mean of the outcome variable (leisure time) into two parts: (1) the part attributed to group differences in the magnitudes of the determinants of the outcome (composition), and (2) that attributed to group differences in the coefficients of these determinants (effects) (Jann 2008; O'Donnell et al. 2008). The equation is as follows:

$$\begin{aligned} y^{\text{married}} - y^{\text{never married}} &= \Delta x\beta^{\text{never married}} + \Delta\beta x^{\text{never married}} + \Delta x\Delta\beta \\ &= C + B + CB. \end{aligned}$$

Thus, the average leisure time gap between married and never-married mothers can be thought of as deriving from a gap in characteristics (C), a gap in behavior (B), and a gap arising from the interaction of characteristics and behaviors (CB). In economics, Oaxaca-Blinder decomposition originally was used to examine discrimination in the labor force and wage differences by gender (Blinder 1973; Oaxaca 1973). In that literature, our component C was referred to as the gap due to endowments and is the explained portion of the equation, B was referred to as the gap in coefficients and is the unexplained portion, and CB was the gap from the interaction of endowments and coefficients, which is apportioned (added) to either the explained or the unexplained part of the gap based on theoretical assumptions. We apportion our interaction effect to the unexplained part of the equation because we want to isolate the true effect of the compositional differences. To summarize, we use Oaxaca-Blinder to decompose the gap in various types of leisure time between marital status groups to isolate how much of the difference is due to the different types of women (composition) who are never married, divorced, cohabiting, or married compared with how much the propensity to engage in leisure activities (behavior) differs by marital status.

We present a summary of the results of the Oaxaca-Blinder decomposition to show how much of married mothers' leisure deficit is due to the different economic and demographic characteristics of married mothers compared with those who are never married, divorced, or cohabiting. We then implement an Oaxaca-Blinder decomposition separately for each independent variable to identify which compositional factors are most responsible for time use differences in sedentary leisure time. We focus on sedentary leisure because it is the dominant type of leisure for all mothers and because differences by marital status are modest for social and active leisure. Finally, using the Oaxaca-Blinder model estimates, we make counterfactual predictions of single, cohabiting, and divorced mothers' leisure time as if they had married mothers' demographic composition. We compare the counterfactual predictions with actual differences to highlight compositional versus behavioral differences in mothers' time use patterns.

Results

Table 1 shows the means of all variables by marital status, with the time use variables listed in the first 9 rows. The bivariate results show married mothers spent the most time in housework (about 3h) and childcare (2h 5m) and the least amount of time in leisure (3h 24m) and sleep (8h 28m), compared with all other mothers. Never-married mothers did the least housework (about 2h) of all mothers. Divorced mothers reported the least childcare time (1h 32m)—about 33m less than married mothers. On average, never-married and cohabiting mothers spent about 4h in leisure activities, compared with 3h 23m among married and divorced mothers. Overall, all women reported about 2h 21m in housework, 4h 22m of leisure, and 8h of sleep, with those who were employed full-time and college-educated reporting less daily sleep, leisure, and housework.

All mothers reported about 50m of social leisure time. Married mothers reported the most active leisure, at about 30m, whereas other mothers reported about 20m. For all groups, the majority of leisure time was sedentary, with never-married and cohabiting mothers averaging about 3h, compared with less time reported by divorced (2h 15m) and married mothers (2h). Never-married mothers also reported more sleep (about 9h 10m), including hours in bed trying to sleep, compared with other mothers.

Compositional differences by marital status were as expected. Nineteen percent of all mothers had an extended family member living in the home. Never-married (40 %) and divorced mothers (29 %) were the most likely to live with an adult extended family member. In our sample, the presence of an adult household member was most likely to be an adult child (7 % of households). Never-married and divorced mothers were more likely than married and cohabiting mothers to report living with a parent, adult sibling, or another nonrelative adult. The average number of children per household was two, with about 26 % of households having children under the age of 2 and 44 % having a child aged 2–5. Never-married and cohabiting mothers were the least educated group, with about 60 % of these mothers holding a high school diploma or less. Married mothers were the most educated: 38 % had a bachelor's degree or more. Forty-four percent of all mothers were employed full-time, although a larger proportion of divorced mothers (55 %) were employed full-time. Black mothers were a larger share of never-married mothers (44 %), and whites were the largest share of married mothers (71 %). Hispanic mothers comprised about 25 % of every marital group. The average age of mothers in the sample was 34 years old.

Table 2 shows coefficients from OLS multivariate regressions of childcare, housework, leisure, and sleep. Results from the childcare model indicated no significant differences in childcare time between married mothers and all other mothers, after we adjusted for other factors. All else equal, all mothers reported an average of 1h 24m of childcare on the diary day (see intercept). Never-married and divorced mothers spent about a half hour less per day than married mothers doing housework, whereas cohabiting and married mothers reported about the same amount of housework time. Both never-married and cohabiting mothers spent more time in leisure activities—10m for the former and 35m for the latter—compared with married mothers. Last, never-married and divorced mothers reported more sleep—about 13m more for never-married mothers and 7m more for divorced mothers—compared with married mothers. Results (not shown) that compared marital status associations between employed and non-employed mothers showed that negative associations of marriage with leisure pertained

Table 1 Means of all variables, with standard deviations in parentheses

Variable	All Mothers	Married (72 %)	Never Married (13 %)	Cohabiters (5 %)	Divorced (10 %)
Childcare	119.02 (0.94)	124.85 (1.17)	105.94 (3.04)	121.92 (5.37)	92.43 (2.65)
Housework	163.56 (1.15)	175.64 (1.37)	116.23 (3.18)	156.54 (5.53)	141.30 (3.61)
Leisure (all)	210.85 (1.26)	203.55 (1.44)	241.46 (4.20)	252.36 (10.93)	203.81 (4.27)
Social Leisure	50.92 (0.63)	51.86 (0.70)	47.48 (2.24)	55.47 (4.33)	46.34 (1.93)
Active Leisure	27.66 (0.52)	30.23 (0.61)	18.91 (1.16)	24.17 (2.51)	22.17 (1.59)
Sedentary Leisure	132.32 (1.14)	121.52 (1.22)	175.08 (3.92)	172.72 (10.38)	135.32 (3.68)
Television (all)	109.95 (1.01)	102.60 (1.15)	140.77 (3.56)	140.02 (9.37)	108.52 (3.50)
Television (alone)	25.14 (0.55)	19.13 (0.50)	48.90 (2.80)	20.24 (2.58)	39.94 (1.91)
Sleep	515.70 (1.04)	508.17 (1.09)	550.14 (3.81)	527.49 (6.76)	519.54 (2.94)
Presence of Extended Family	0.19	0.14	0.40	0.15	0.29
Number of Children	2.11	2.18	1.77	1.85	2.12
Presence of Child Under 2	0.26	0.26	0.31	0.40	0.13
Presence of Child 2–5 Years Old	0.44	0.45	0.47	0.46	0.36
Less Than High School	0.13	0.11	0.21	0.21	0.14
High School	0.28	0.25	0.40	0.38	0.33
Some College	0.28	0.26	0.31	0.31	0.34
BA or More	0.31	0.38	0.08	0.09	0.20
Not Employed	0.37	0.37	0.41	0.40	0.28
Part-Time	0.19	0.20	0.16	0.18	0.17
Full-Time	0.44	0.43	0.43	0.42	0.55
Black	0.13	0.07	0.44	0.12	0.19
Hispanic	0.23	0.22	0.23	0.25	0.24
White	0.64	0.71	0.34	0.63	0.56
Age	34.39	35.58	28.64	29.53	35.59
Weekend Diary Day	0.29	0.29	0.29	0.28	0.30
<i>N</i>	23,088	16,086	2,928	823	3,251

Notes: Data are from ATUS 2003–2012. The analytic sample is mothers aged 18–54 with coresidential children under age 13. We use person-level and replicate weights.

only to employed mothers. For sleep, models indicated that single mothers had more sleep time than married mothers only among employed mothers, whereas divorced mothers reported more sleep than married mothers only among non-employed mothers. Overall, our findings showed no support for the time poverty thesis but were consistent with theoretical predictions using a gender perspective: partnered mothers reported more housework and less leisure than nonpartnered mothers and about the same amount of time providing childcare.

As anticipated, demographic and economic variation accounted for some of the differences in mothers' housework, leisure, and sleep time by marital status. The presence of an extended family member was associated with less time spent on housework and childcare, but it had no association with leisure and sleep. Thus, the presence of another adult was most likely a time resource, not a time drain, for mothers. Higher levels of mothers' educational attainment were associated with more time spent

Table 2 Time use for mothers (aged 18–54), OLS regression analysis ($N = 23,088$)

	Childcare	Housework	Leisure	Sleep
Marital Status (ref. = married)				
Never married	-0.98 (3.65)	-32.26*** (3.94)	10.38* (5.23)	13.45** (4.24)
Cohabiting	-4.39 (4.98)	-5.95 (5.57)	34.67** (11.12)	-0.55 (6.35)
Divorced/separated	-2.05 (2.73)	-25.54*** (3.61)	-7.22 (4.84)	6.79* (2.93)
Family Characteristics				
Extended family	-10.12*** (2.88)	-10.74*** (3.07)	5.97 (4.34)	4.00 (3.05)
Number of children	6.29*** (1.13)	12.29*** (1.16)	-5.92*** (1.56)	-8.57*** (1.08)
Child under age 2	90.85*** (2.82)	-6.04* (3.07)	-27.48*** (3.55)	-8.28** (2.54)
Child 2–5 years old	34.36*** (1.92)	2.60 (2.47)	-19.37*** (2.64)	-3.71 (2.09)
Education (ref. = bachelor's degree or more)				
Less than high school	-38.21*** (3.97)	34.83*** (4.51)	39.15*** (5.15)	37.17*** (3.86)
High school	-25.50*** (2.56)	21.86*** (2.83)	31.89*** (3.50)	17.79*** (2.49)
Some college	-22.99*** (2.64)	11.65*** (2.59)	12.24*** (3.22)	3.98 (2.08)
Employment (ref. = full-time)				
Non-employed	48.26*** (2.23)	75.26*** (2.34)	62.05*** (2.94)	30.59*** (2.51)
Part-time	20.39*** (2.36)	30.88*** (2.59)	23.92*** (3.85)	16.20*** (2.53)
Race/Ethnicity (ref. = white)				
Black	-26.99*** (3.07)	-27.04*** (3.40)	20.35** (6.33)	13.37** (4.37)
Hispanic	-24.09*** (2.30)	21.22*** (3.58)	-23.21*** (4.03)	16.67*** (2.93)
Age	-0.01 (0.17)	2.55*** (0.18)	-1.03*** (0.24)	-1.76*** (0.18)
Weekend Diary Day	-28.35*** (1.73)	24.13*** (2.21)	77.78*** (2.69)	60.60*** (1.76)
Intercept	83.72*** (7.78)	3.54 (7.69)	206.39*** (10.50)	546.72*** (7.20)
R^2	.21	.14	.11	.12

Notes: Standard errors are shown in parentheses. Data are from ATUS 2003–2012. The analytic sample is mothers aged 18–54 with coresidential children under age 13. We use person-level and replicate weights.

* $p < .05$; ** $p < .01$; *** $p < .001$

in childcare and less time in all other activities. Full-time employment was associated with less time in all activities, compared with non-employed and part-time employed mothers. As noted earlier, leisure and sleep differences by marital status were not significant in models restricted to mothers who were not employed. Hence, net of demographic and economic factors, married mothers spent more time in housework and less time in leisure and sleep (among employed mothers) than other mothers, consistent with predictions of the gender perspective.

Table 3 shows marital status differences by subcategories of leisure time. Married mothers' leisure was less sedentary compared with never-married and cohabiting mothers. We found no differences in social leisure time among mothers, who on average reported just shy of 1h of social leisure time per day. All mothers reported about 33m of active leisure (see intercept), with divorced mothers reporting about 4m less per day. Compared with married and divorced mothers' nearly 2h in sedentary leisure, never-married and cohabiting mothers spent more time in sedentary leisure: 2h 13m for never-married mothers and 2h 29m for cohabiting mothers. Television viewing made up the majority of sedentary leisure time. Cohabiting mothers reported watching television for about 20m more per day than married mothers. Divorced and never-married mothers reported watching television about 15m more per day compared with married mothers. The presence of an extended family member had no effect on social or active leisure, but it was associated with slightly increased sedentary leisure time, by about 8m per day.

Education and employment had stronger associations with sedentary leisure than marital status per se. The difference in sedentary leisure time was highest for the least-educated mothers. Mothers with less than a high school diploma spent almost an hour more per day in sedentary leisure activities compared with mothers who held a bachelor's degree. Non-employed mothers devoted almost 40m more daily to sedentary leisure compared with mothers employed full-time, but they also spent 10m more in social and active leisure, suggesting that these differences were due to fewer competing demands on time (e.g., from paid work). As anticipated, the presence of young children and an increase in the number of children were associated with lower levels of leisure time for mothers. Black mothers spent about 40m more in sedentary leisure than white mothers, but there was no difference between white and Hispanic mothers' time in sedentary leisure. Overall, non-employed, less-educated, and black mothers spent the most time watching television, with others and alone.

We decomposed the gap in estimated minutes of sedentary leisure by married mothers compared with other mothers into the portion explained by differences in characteristics (composition) and the portion explained by behavioral (effect) differences. In Table 4, we present the total difference in average time in sedentary leisure, television time, and time spent watching television alone for never-married, cohabiting, and divorced mothers compared with married mothers. The first line in each panel shows the total time difference (in minutes) devoted to each activity between married mothers and mothers of other marital statuses. For example, married mothers spent nearly 54 (53.56) fewer minutes per day in sedentary leisure than never-married mothers. The characteristics line in Table 4 shows the proportion of the total difference attributable to compositional differences in the model.

Compositional differences between married and never-married mothers accounted for almost 40m (38.21) of the 54m overall difference in sedentary leisure time. Thus,

Table 3 Mothers leisure activities (ages 18–54), OLS regression analysis ($N = 23,088$)

	Social	Active	Sedentary	Television	Television Alone
Marital Status (ref. = married)					
Never married	-4.29 (2.72)	-1.56 (1.40)	16.22*** (4.86)	6.49 (4.11)	22.18*** (2.70)
Cohabiting	2.11 (4.18)	0.17 (2.56)	32.35** (10.38)	20.60* (9.53)	0.69 (2.66)
Divorced/separated	-3.53 (2.15)	-4.46** (1.66)	0.74 (4.08)	-5.42 (3.81)	16.07*** (1.91)
Family Characteristics					
Extended family	-1.06 (2.28)	-1.30 (1.49)	8.28* (3.71)	5.07 (3.40)	-4.59* (1.81)
Number of children	-2.08** (0.74)	-0.26 (0.52)	-3.57** (1.38)	-3.78** (1.17)	-1.51* (0.75)
Child under age 2	-1.24 (1.91)	-8.46*** (1.28)	-17.83*** (2.84)	-16.40*** (2.60)	-12.38*** (1.40)
Child 2–5 years old	-1.56 (1.56)	-4.03*** (1.09)	-13.83*** (2.45)	-11.71*** (2.14)	-6.71*** (1.15)
Education (ref. = bachelor's degree or more)					
Less than high school	-4.98 (3.13)	-12.97*** (1.95)	57.05*** (4.80)	54.91*** (4.16)	11.06*** (2.05)
High school	-2.51 (1.84)	-9.96*** (1.33)	44.34*** (2.77)	38.77*** (2.37)	8.90*** (1.53)
Some college	0.77 (1.83)	-8.70*** (1.06)	20.16*** (2.66)	19.24*** (2.27)	4.04*** (1.18)
Employment (ref. = full-time)					
Non-Employed	12.41*** (1.61)	11.14*** (1.23)	38.50*** (2.57)	32.28*** (2.40)	8.34*** (1.47)
Part-Time	8.88*** (1.99)	5.66*** (1.26)	9.38** (3.34)	5.74* (2.77)	2.18 (1.32)
Race/Ethnicity (ref. = white)					
Black	-7.88*** (2.39)	-13.03*** (1.56)	41.25*** (6.03)	33.41*** (4.94)	23.17*** (2.71)
Hispanic	-5.57** (2.08)	-15.46*** (1.35)	-2.19 (3.31)	0.11 (2.89)	-4.76*** (1.23)
Age	-0.44*** (0.12)	0.14 (0.08)	-0.73*** (0.21)	-0.60** (0.20)	0.36** (0.11)
Weekend Diary Day	44.84*** (1.49)	8.02*** (1.07)	24.87*** (2.19)	21.95*** (2.18)	-3.70*** (0.95)
Intercept	56.85*** (5.25)	32.81*** (3.33)	116.89*** (9.30)	98.57*** (8.52)	9.08* (4.60)
R^2	.05	.04	.09	.08	.06

Notes: Standard errors are shown in parentheses. Data are from ATUS 2003–2012. The analytic sample is mothers aged 18–54 with coresidential children under age 13. We use person-level and replicate weights.

* $p < .05$; ** $p < .01$; *** $p < .001$

Table 4 Decomposition of characteristics and behavioral elements of estimates of mothers leisure activity (compared with married mothers)

	Sedentary Leisure		Television (all)		Television Alone	
	Minutes	% of Total	Minutes	% of Total	Minutes	% of Total
Never Married						
Total difference	-53.56		-38.17		-29.77	
Characteristics	-38.21	71	-26.93	71	-8.53	29
	(6.67)		(6.61)		(4.44)	
Behavior	-15.76	29	-6.15	16	-23.58	79
	(5.87)		(5.22)		(3.53)	
Interaction	0.41	-1	-5.10	13	2.34	-8
	(7.60)		(7.44)		(4.73)	
Cohabitors						
Total difference	-51.20		-37.42		-1.11	
Characteristics	-16.19	32	-10.49	28	-0.76	69
	(7.58)		(7.36)		(2.41)	
Behavior	-30.23	59	-18.15	48	-0.27	24
	(10.48)		(9.64)		(2.73)	
Interaction	-4.78	9	-8.78	23	-0.08	7
	(7.47)		(7.24)		(2.38)	
Divorced/Separated						
Total difference	-13.80		-5.92		-20.81	
Characteristics	-11.36	82	-12.34	208	-6.58	32
	(3.41)		(3.06)		(2.03)	
Behavior	-1.59	12	4.11	-69	-17.29	83
	(4.35)		(4.14)		(2.11)	
Interaction	-0.84	6	2.32	-39	3.06	-15
	(3.47)		(3.10)		(2.09)	

Notes: Standard errors are shown in parentheses. Percentages are the percent of the total difference. Data are from ATUS 2003–2012. The analytic sample is mothers aged 18–54 with coresidential children under age 13. We use person-level and replicate weights.

average differences in family structure, educational attainment, employment status, race/ethnicity, and age of never-married mothers compared with married mothers accounted for 71 % of the sedentary leisure gap. Comparatively, these variables explained 82 % of the difference between divorced and married mothers but only 32 % of the difference between cohabiting and married mothers' sedentary leisure.

Compositional differences accounted for 71 % of the difference in time watching television for never-married mothers compared with married mothers but only 28 % of the difference between cohabiting and married mothers. Compared with married mothers, never-married mothers spent, on average, 30m more per day watching television alone. If never-married mothers had the same characteristics as married mothers, their isolated television viewing would decrease by 9m, or 29 % of the leisure difference. This suggests that if never-married mothers were advantaged in the same

way as married mothers, less of their leisure time would be spent in activities that have suboptimal associations with physical and mental health and life enjoyment.

For ease of interpretation, Fig. 1 is the visual representation of the decomposition analyses presented in Table 4. We show the predicted estimates for each leisure category by marital status and the counterfactual predictions of time in these categories if never-married, cohabiting, and divorced mothers had married mothers’ average economic and demographic characteristics. The patterned bars show the predicted time spent in each category for each group with their actual average characteristics. The solid grey bars depict never-married, cohabiting, and divorced mothers’ predicted time in each category if they had the average characteristics of married mothers. For example, the average predicted estimate of time watching television for never-married mothers was 141m (2h 21m), compared with 103m (1h 43m) for married mothers. If never-married mothers had married mothers’ compositional characteristics—meaning if they had higher educational attainment, had a larger share employed part-time instead of full-time, were older, and were white—their predicted estimate of time watching television would decrease by 27m. This would decrease the gap between married and never-married mothers’ time spent watching television from 38m a day to 11m (103m compared with 114m). Comparatively, cohabiting mothers reported about 37m more per day watching television than married mothers. If cohabiting mothers had the same average characteristics as married mothers, the gap in time spent watching television would decrease by 10m per day (a 28 % difference).

Table 5 presents the Oaxaca-Blinder decomposition estimates of the individual contributions of each predictor in influencing leisure time use differences. We use married mothers’ characteristics to decompose variation attributable to compositional differences in time use between marital status groups, variation due to behavioral (effect) differences, and variation resulting from the interaction of compositional factors and behavior. Educational differences accounted for the largest portion of the characteristic differences between married mothers and all other mothers. For example,

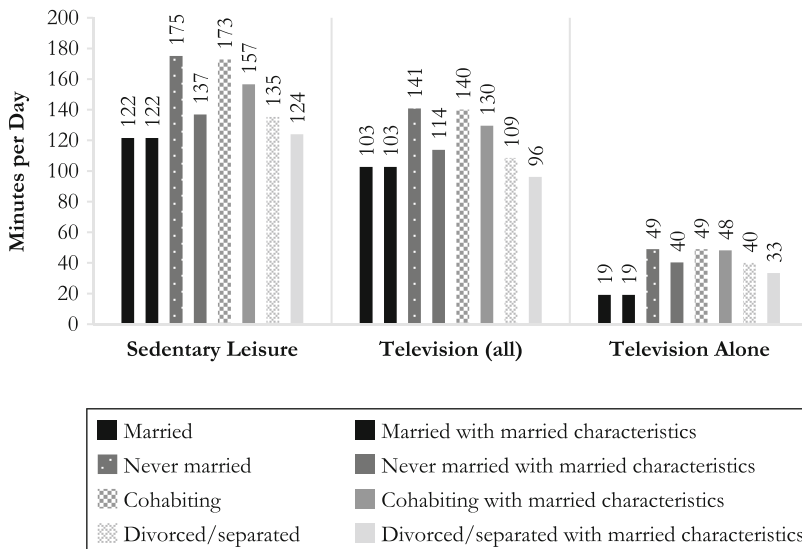


Fig. 1 Leisure time by marital status and predicted minutes with married mothers’ average characteristics

differences in sedentary leisure time would be reduced by about 18m per day if never-married mothers had married mothers' average educational attainment; this 18m makes up 47 % of the difference explained by compositional differences and 33 % of the 54m total difference. The larger proportion of never-married mothers who were black also accounted for some of the variation in leisure differences between never-married and divorced mothers compared with married mothers.

Discussion

We provided a comprehensive account of marital status variation in mothers' daily time in housework, childcare, leisure, and sleep. We used time diary data from the 2003–2012 American Time Use Survey to test the theorized associations derived from the time poverty and gender perspectives. Specifically, we evaluated whether partnered mothers spent less time doing housework and childcare, and more time in leisure activities and sleeping, than mothers who lacked a partner with whom to pool time resources (time poverty thesis) or whether married and cohabiting mothers did more housework and had less leisure and sleep (gender perspective). We paid particular attention to variation in leisure activities because their discretionary nature make them a good indicator of quality of life differences that flow in part from behavioral preferences and in part from economic and cultural differences.

Our findings were contrary to theoretical expectations of the time poverty thesis (Vickery 1977): partnered mothers spent the most time on housework, and we found minimal differences in childcare time among mothers. Thus, although partnered mothers theoretically can share some household labor with their partners, our findings showed that living with a heterosexual male partner was associated with mothers' greater time spent on housework, consistent with the gender perspective. This result is also consistent with specialization arguments. However, coupled with our findings that the presence of another household adult was associated with reduced time in housework and childcare for mothers, our findings suggest that it is not just an additional pair of hands that is important; to whom those hands belong also matters. Results showing similar amounts of time providing childcare suggest that all mothers protect time in childcare from the encroachment of other time demands, a finding replicated in numerous other studies (Bianchi and Milkie 2010). We also found that compared with married mothers, never-married and cohabiting mothers reported more total leisure time, which is inconsistent with expectations from the time poverty thesis and specialization models. Never-married and divorced mothers reported more time for sleep compared with partnered mothers. These findings are consistent with the gender perspective's theoretical predictions that married mothers have less time for sleep and leisure in part because "doing gender" leads partnered women to prioritize housework and childcare over leisure and sleep.

Consistent with the gender perspective, married mothers' greater time in housework and less time sleeping, compared with other mothers, points to the ways their time is a shared household resource. That married and cohabiting mothers did more housework compared with single mothers is consistent with previous scholarship showing that married mothers increase housework in part to meet expectations about home-cooked meals, clean clothes, and well-kept houses—behavior integral to contemporary definitions of appropriate behavior for wives and mothers (Ferree 2010). It is possible that married

Table 5 Decomposition details of characteristics and behavioral estimates of mothers' sedentary leisure activity (compared with married mothers)

	Total Difference	Characteristics		Behavior		Interactions	
		% of Minutes	Minutes	% of Minutes	Minutes	% of Minutes	Minutes
Never Married							
Total difference	-53.56		-38.21***		-15.76**		0.41
Extended family		17	-6.55**	43	-6.80	1,094	4.51
Number of children		-4	1.60	103	-16.28	-931	-3.84
Child under age 2		-7	2.82**	-69	10.88**	-471	-1.94*
Child 2–5 years old		-1	0.32	-30	4.81	-33	-0.14
Education		47	-18.08***	95	-15.02	1,235	5.09
Employment		5	-1.82*	27	-4.26	214	0.88
Black		36	-13.72***	3	-0.47	96	0.40
Hispanic		0	0.03	-10	1.51	-9	-0.04
Age		7	-2.77	118	-18.65	-1,095	-4.52
Weekend		0	-0.05	2	-0.33	0	0.00
Intercept				-183	28.84		
Cohabitors							
Total difference	-51.20		-16.19*		-30.23**		-4.78
Extended family		1	-0.08	0	0.10	0	-0.01
Number of children		-22	3.57	100	-30.11	112	-5.34
Child under age 2		25	-4.00	58	-17.49	-130	6.22
Child 2–5 years old		1	-0.19	48	-14.57	-7	0.34
Education		128	-20.79***	84	-25.41	-173	8.27
Employment		0	-0.06	16	-4.85	15	-0.70
Black		29	-4.71	19	-5.74	-55	2.65
Hispanic		-2	0.28	-9	2.70	6	-0.28
Age		-60	9.69	259	-78.27*	335	-16.04*
Weekend		-1	0.11	-12	3.64	-3	0.12
Intercept				-462	139.76*		
Divorced/Separated							
Total difference	-13.80		-11.36**		-1.59		-0.84
Extended family		5	-0.59	-73	1.17	75	-0.63
Number of children		3	-0.29	107	-1.70	6	-0.05
Child under age 2		29	-3.32*	-92	1.46	-163	1.37
Child 2–5 years old		18	-1.99*	-176	2.80	-85	0.72
Education		50	-5.71**	-108	1.72	47	-0.39
Employment		-44	4.96***	402	-6.39	181	-1.53
Black		37	-4.24**	-24	0.38	29	-0.25
Hispanic		-2	0.18	-124	1.98	22	-0.19
Age		0	0.00	1,815	-28.88	-1	0.01
Weekend		3	-0.36	153	-2.43	-11	0.09
Intercept				-1,778	28.29		

Notes: Standard errors are shown in parentheses. Percentages are the percentage of the total difference. Data are from ATUS 2003–2012. The analytic sample is mothers aged 18–54 with coresidential children under age 13. We use person-level and replicate weights.

* $p < .05$; ** $p < .01$; *** $p < .001$

mothers reported more housework compared with never-married mothers because never-married mothers limit housework time to make up for time poverty in other activities, rather than married mothers increasing housework as a way to do gender. However, if single mothers were simply redistributing their time, we would have expected to see similar time allocations in leisure and sleep activities for partnered and nonpartnered mothers, or even deficits in these activities for mothers with no partner.

It is also possible that married mothers' higher reports of housework reflect a specialized gendered division of labor. If marital specialization explained married mothers' greater housework time compared with other mothers, mothers' time in leisure and sleep should have remained unaffected. Instead, findings indicated that compared with married mothers, never-married mothers had more time for leisure and sleep. In analyses not shown, we also found no marriage effect on childcare and housework time in models comparing married and cohabiting mothers that included measures of their work hours and their male partners' work hours. Moreover, a specialization argument suggests a time tradeoff between married mothers' time spent in paid work and unpaid labor, and our results remained net of differences in employment for mothers.

Addressing the inconsistencies in knowledge about how marital status influences the amount and type of leisure is essential because of strong associations of leisure with health. Disparate time use patterns affect mothers' economic, physical, and psychological well-being (Bird and Rieker 2008; Jacobs and Gerson 2004; Mattingly and Bianchi 2003; McLanahan 2004). Focusing on discretionary time as a potential resource for mothers, we examined marital status variation in the quality of mothers' leisure, categorized by their potential health and social benefits. Although never-married and cohabiting mothers enjoyed more overall leisure time compared with married mothers, results showed that more of their leisure was sedentary. When watching television, single mothers (never-married and divorced) were more socially isolated compared with married mothers, spending a greater share of this leisure activity alone. Their higher sedentary leisure, which has negative associations with well-being, is consistent with literature documenting pervasive resource disadvantages among single mothers.

A central contribution of our analysis was identifying whether leisure time differences were functions of gendered dynamics within couple relationships that reduce mothers' entitlement to leisure, compositional variation in the socioeconomic and demographic characteristics among mothers, or a combination of both. To investigate the source of leisure time variation, we decomposed the gap in time spent in sedentary leisure that was attributed to compositional differences in the types of mothers who were married, never married, cohabiting and divorced and the portion of the gap due to group differences in the effects of these characteristics. Findings showed that factors that vary systematically with marital status—such as household composition, employment, educational attainment, age, and race/ethnicity—explained two-thirds of the variation in sedentary leisure time between never-married and married mothers, with educational differences accounting for a large share.

That educational and racial differences accounted for the largest proportion of the difference in sedentary leisure may be indicative of resource constraints on active and social leisure. Television is relatively inexpensive compared with other leisure, such as going out with friends, attending sporting events, or making use of gym memberships. Never-married mothers are more likely to work in occupations that have lower autonomy and schedule flexibility (Clawson and Gerstel 2014), and television viewing

can be done when convenient and does not require coordinating schedules with other people. Higher levels of sedentary leisure for single mothers may also be linked with their concentration in more physically demanding occupations. Active leisure is higher among individuals employed in professional occupations, whereas people in skilled and semiskilled trade occupations are more likely to have physically taxing occupations (Salmon et al. 2000). Therefore, some of the marital status association with sedentary leisure may be due to more tiring jobs and may not necessarily be negatively associated with well-being for these mothers. Still, we found positive associations of single motherhood with sedentary leisure in models that included occupational status. Future research is needed to determine the extent to which different patterns of leisure activities among mothers result from occupational differences, resource constraints, leisure preferences, and lifestyle factors.

Comparatively, compositional differences between cohabiting and married mothers accounted for only 30 % of the difference in sedentary leisure time, or 20 minutes, with behavioral differences (effects) accounting for the other 70 % (39 minutes). The large difference remaining unexplained in our regressions suggests that we may not be accounting for all the ways that marriage as an institution elicits behaviors in ways that cohabiting relationships do not. For example, married mothers may reduce tensions between work and family devotion schemas by focusing more of their leisure on activities that foster children's capabilities and capital (Lareau 2003; Stone 2007). Our results indicated no significant differences between cohabiting and married mothers in social and active leisure, but we did not examine time reported with children in leisure activities. This would be a fruitful extension of our research.

Our data are limited in other ways. The gender perspective and empirical work document that women's housework levels are responsive to transitions into heterosexual relationships (Coltrane 2000; Ferree 2010; Thompson and Walker 1989). Ideal data sets would be longitudinal and would capture time in activities for both partners in couples. One-day, cross-sectional time diary analyses, like ours, are not able to discern causal relationships, and thus we are not able to examine how differential pathways into and transitions out of partnered or single motherhood affect time use patterns. Nevertheless, for activities that occur frequently, like the activities estimated in this analysis, one-day diaries provide reliable, valid indicators of group differences in time allocation. We use literature on health, cognitive, and social benefits to differentiate leisure into higher-quality (social and active) and lower-quality (sedentary) activities, but the time diary does not contain measures of how mothers actually experience these activities. Further inquiry into mothers' experiences of leisure time would contribute to our understanding of marital status differences in health outcomes among mothers.

We drew on the gender perspective to argue that the unexplained portion of housework and leisure time differences among mothers is a proxy for variation in gendered behavior, in the same way that economists attribute the unexplained portion of men and women's wage gap to gender discrimination (Weichselbaumer and Winter-Ebmer 2005). It is important to recognize that the unexplained portion also captures all the potential effects of differences resulting from unobserved variables. The covariates cannot adequately reflect the complex associations between interpersonal dyads or to distinguish between necessary time for housework and childcare and time in activities that results from preferences, standards, and enjoyment. The amount of variance in mothers' time use that remains unexplained suggests that there is much more to be

learned about determinants of time spent in housework, childcare, and leisure activities. Future research identifying variables that further decrease the unexplained variation would strengthen our understanding of behavior within heterosexual partnerships. Nonetheless, our results resonate with the broad literature on gendered time use allocations, suggesting that marriage is associated with more housework and less leisure for mothers.

Acknowledgments Support was provided under Grant R24-HD041041 to the Maryland Population Research Center.

References

- Baxter, J., Hewitt, B., & Haynes, M. (2008). Life course transitions and housework: Marriage, parenthood, and time on housework. *Journal of Marriage and Family*, *70*, 259–272.
- Becker, G. S. (1981). *A treatise on the family*. Cambridge, MA: Harvard University Press.
- Berk, S. F. (1985). *The gender factory: The apportionment of work in American households*. New York, NY: Plenum Press.
- Berkman, L. F., & Glass, T. (2000). Social integration, social networks, social support, and health. In L. F. Berkman & I. Kawachi (Eds.), *Social epidemiology* (pp. 137–173). New York, NY: Oxford University Press.
- Bianchi, S. M., & Milkie, M. A. (2010). Work and family research in the first decade of the 21st century. *Journal of Marriage and Family*, *72*, 705–725.
- Bianchi, S. M., Milkie, M. A., Sayer, L. C., & Robinson, J. P. (2000). Is anyone doing the housework? Trends in the gender division of household labor. *Social Forces*, *79*, 191–228.
- Bianchi, S. M., Robinson, J. P., & Milkie, M. A. (2006). *Changing rhythms of American family life*. New York, NY: Russell Sage Foundation.
- Bianchi, S. M., Sayer, L. C., Milkie, M. A., & Robinson, J. P. (2012). Housework: Who did, does or will do it, and how much does it matter? *Social Forces*, *91*, 55–63.
- Biblarz, T. J., & Stacey, J. (2010). How does the gender of parents matter? *Journal of Marriage and Family*, *72*, 3–22.
- Bird, C. E., & Rieker, P. P. (2008). *Gender and health: The effects of constrained choices and social policies*. New York, NY: Cambridge University Press.
- Bittman, M. (2002). Social participation and family welfare: The money and time costs of leisure in Australia. *Social Policy & Administration*, *36*, 408–425.
- Bittman, M., England, P., Sayer, L. C., Folbre, N., & Matheson, G. (2003). When does gender trump money? Bargaining and time in household work. *American Journal of Sociology*, *109*, 186–214.
- Bittman, M., & Wajcman, J. (2000). The rush hour: The character of leisure time and gender equity. *Social Forces*, *79*, 165–195.
- Blinder, A. S. (1973). Wage discrimination: Reduced form and structural estimates. *Journal of Human Resources*, *8*, 436–455.
- Brines, J., & Joyner, K. (1999). The ties that bind: Principles of cohesion in cohabitation and marriage. *American Sociological Review*, *64*, 333–355.
- Bumpass, L., & Lu, H.-H. (2000). Trends in cohabitation and implications for children's family contexts in the United States. *Population Studies*, *54*, 29–41.
- Bureau of Labor Statistics. (2015). *American Time Use Survey user's guide: Understanding ATUS 2003 to 2014*. Washington, DC: U.S. Census Bureau.
- Burgard, S. A., & Ailshire, J. A. (2013). Gender and time for sleep among U.S. adults. *American Sociological Review*, *78*, 51–69.
- Casper, L. M., & Bianchi, S. M. (2002). *Continuity and change in the American family*. Thousand Oaks, CA: Sage Publications.
- Casper, L. M., & Bianchi, S. M. (2010). The stalled revolution: Gender and time allocation in the United States. In B. Mousli & E.-A. Roustang-Stoller (Eds.), *Women, feminism, and femininity in the 21st century: French and American perspectives* (pp. 55–78). New York, NY: Palgrave Macmillan.

- Casper, L. M., Florian, S., Potts, C., & Brandon, P. D. (2016). Portrait of American grandparent families. In M. Harrington Meyer & Y. Abdul-Malak (Eds.), *Grandparenting in the United States* (pp. 109–132). Amityville, NY: Baywood Publishing.
- Charles, M., & Bradley, K. (2009). Indulging our gendered selves? Sex segregation by field of study in 44 countries. *American Journal of Sociology*, *114*, 924–976.
- Cherlin, A. J. (2004). The deinstitutionalization of American marriage. *Journal of Marriage and Family*, *66*, 848–861.
- Christopher, K. (2012). Extensive mothering: Employed mothers' constructions of the good mother. *Gender & Society*, *26*, 73–96.
- Clawson, D., & Gerstel, N. (2014). *Unequal time: Gender, class, and family in employment schedules*. New York, NY: Russell Sage Foundation.
- Cohen, P. N. (2014). *The family: Diversity, inequality, and social change*. New York, NY: W. W. Norton.
- Cohn, D., Livingston, G., & Wang, W. (2014). After decades of decline, a rise in stay-at-home mothers. Retrieved from <http://www.pewsocialtrends.org/2014/04/08/after-decades-of-decline-a-rise-in-stay-at-home-mothers/>
- Coltrane, S. (2000). Research on household labor: Modeling and measuring the social embeddedness of routine family work. *Journal of Marriage and the Family*, *62*, 1208–1233.
- Cooke, L. P., & Baxter, J. (2010). "Families" in international context: Comparing institutional effects across western societies. *Journal of Marriage and Family*, *72*, 516–536.
- Coverman, S. (1985). Explaining husbands' participation in domestic labor. *Sociological Quarterly*, *26*, 81–97.
- Craig, L. (2005). The money or the care: A comparison of couple and sole parent households' time allocation to work and children. *Australian Journal of Social Issues*, *40*, 521–540.
- Craig, L. (2006). Does father care mean fathers share? A comparison of how mothers and fathers in intact families spend time with children. *Gender & Society*, *20*, 259–281.
- Craig, L., & Mullan, K. (2013). Parental leisure time: A gender comparison in five countries. *Social Politics: International Studies in Gender, State and Society*, *20*, 329–357.
- Crespo, C. J., Smit, E., Andersen, R. E., Carter-Pokras, O., & Ainsworth, B. E. (2000). Race/ethnicity, social class and their relation to physical inactivity during leisure time: Results from the third National Health and Nutrition Examination Survey, 1988–1994. *American Journal of Preventive Medicine*, *18*, 46–53.
- Damaske, S. (2011a). A "major career woman"? How women develop early expectations about work. *Gender & Society*, *25*, 409–430.
- Damaske, S. (2011b). *For the family? How class and gender shape women's work*. New York, NY: Oxford University Press.
- Davis, S. N., Greenstein, T. N., & Gerteisen Marks, J. P. (2007). Effects of union type on division of household labor: Do cohabiting men really perform more housework? *Journal of Family Issues*, *28*, 1246–1272.
- Desmond, M. (2016). *Evicted: Poverty and profit in the American city*. New York, NY: Crown.
- DeVault, M. L. (1991). *Feeding the family: The social organization of caring as gendered work*. Chicago, IL: University of Chicago Press.
- England, P. (1993). The separative self: Androcentric bias in neoclassical assumptions. In M. A. Ferber & J. A. Nelson (Eds.), *Beyond economic man: Feminist theory and economics* (pp. 39–55). Chicago, IL: University of Chicago Press.
- Ferree, M. M. (1991). The gender division of labor in two-earner marriages: Dimensions of variability and change. *Journal of Family Issues*, *12*, 158–180.
- Ferree, M. M. (2010). Filling the glass: Gender perspectives on families. *Journal of Marriage and Family*, *72*, 420–439.
- Flood, S., King, M., Ruggles, S., & Warren, J. R. (2015). *Integrated Public Use Microdata Series, Current Population Survey: Version 4.0* [Data set]. Minneapolis, MN: University of Minnesota. <https://www.ipums.org/doi/D030.V4.0.shtml>
- Frey, B. S., Benesch, C., & Stutzer, A. (2007). Does watching TV make us happy? *Journal of Economic Psychology*, *28*, 283–313.
- Gerson, K. (2011). *The unfinished revolution: Coming of age in a new era of gender, work, and family*. New York, NY: Oxford University Press.
- Gornick, J. C., & Meyers, M. K. (2009). *Gender equality: Transforming family divisions of labor*. London, UK: Verso.
- Grunow, D., Schulz, F., & Blossfeld, H.-P. (2012). What determines change in the division of housework over the course of marriage? *International Sociology*, *27*, 289–307.
- Gupta, S. (1999). The effects of transitions in marital status on men's performance of housework. *Journal of Marriage and the Family*, *61*, 700–711.

- Hallberg, D., & Klevmarken, A. (2003). Time for children: A study of parent's time allocation. *Journal of Population Economics*, *16*, 205–226.
- Hancock, A.-M. (2004). *The politics of disgust: The public identity of the welfare queen*. New York, NY: New York University Press.
- Hays, S. (1996). *The cultural contradictions of motherhood*. New Haven, CT: Yale University Press.
- Henderson, K. A. (1990). The meaning of leisure for women: An integrative review of the research. *Journal of Leisure Research*, *22*, 228–243.
- Hoffman, S. D. (2009). The changing impact of marriage and children on women's labor force participation. *Monthly Labor Review*, *132*(February), 3–14.
- Hook, J. L. (2017). Women's housework: New tests of time and money. *Journal of Marriage and Family*, *79*, 179–198.
- Jacobs, J. A., & Gerson, K. (2004). *The time divide: Work, family, and gender inequality*. Cambridge, MA: Harvard University Press.
- Jann, B. (2008). The Blinder-Oaxaca decomposition for linear regression models. *Stata Journal*, *8*, 453–479.
- Kahneman, D., & Krueger, A. B. (2006). Developments in the measurement of subjective well-being. *Journal of Economic Perspectives*, *20*(1), 3–24.
- Kahneman, D., Krueger, A. B., Schkade, D., Schwarz, N., & Stone, A. (2004). Toward national well-being accounts. *American Economic Review*, *94*(2), 429–434.
- Kendig, S. M., & Bianchi, S. M. (2008). Single, cohabitating, and married mothers' time with children. *Journal of Marriage and Family*, *70*, 1228–1240.
- Kennedy, S., & Bumpass, L. L. (2008). Cohabitation and children's living arrangements: New estimates from the United States. *Demographic Research*, *19*(article 47), 1663–1692. <https://doi.org/10.4054/DemRes.2008.19.47>
- Kimmel, J., & Connelly, R. (2006). *Is mothers' time with their children home production or leisure?* (IZA Discussion Paper No. 2058). Bonn, Germany: Institute for the Study of Labor.
- Kimmel, J., & Connelly, R. (2007). Mothers' time choices: Caregiving, leisure, home production, and paid work. *Journal of Human Resources*, *42*, 643–681.
- Lareau, A. (2003). *Unequal childhoods*. Los Angeles: University of California Press.
- Levine, J. (2013). *Ain't no trust: How bosses, boyfriends, and bureaucrats fail low-income mothers and why it matters*. Berkeley: University of California Press.
- Lichter, D. T., Sessler, S., & Turner, R. N. (2014). Cohabitation, post-conception unions, and the rise in nonmarital fertility. *Social Science Research*, *47*, 134–147.
- Livingston, G. (2013). *At grandmother's house we stay: One-in-ten children are living with a grandparent*. Washington, DC: Pew Research Center.
- Macdonald, C. L. (2010). *Shadow mothers: Nannies, au pairs, and the micropolitics of mothering*. Berkeley: University of California Press.
- Manning, W. D., & Smock, P. J. (2002). First comes cohabitation and then comes marriage? A research note. *Journal of Family Issues*, *23*, 1065–1087.
- Mattingly, M. J., & Bianchi, S. M. (2003). Gender differences in the quantity and quality of free time: The U.S. experience. *Social Forces*, *81*, 999–1030.
- Maume, D. J., Sebastian, R. A., & Bardo, A. R. (2010). Gender, work-family responsibilities, and sleep. *Gender & Society*, *24*, 746–768.
- McLanahan, S. (2004). Diverging destinies: How children are faring under the second demographic transition. *Demography*, *41*, 607–627.
- Milkie, M. A., Mattingly, M. J., Nomaguchi, K. M., Bianchi, S. M., & Robinson, J. P. (2004). The time squeeze: Parental statuses and feelings about time with children. *Journal of Marriage and Family*, *66*, 739–761.
- Miller, Y. D., & Brown, W. J. (2005). Determinants of active leisure for women with young children—An “ethic of care” prevails. *Leisure Sciences*, *27*, 405–420.
- Nock, S. L., & Kingston, P. W. (1988). Time with children: The impact of couples' work-time commitments. *Social Forces*, *67*, 59–85.
- Oaxaca, R. (1973). Male-female wage differentials in urban labor markets. *International Economic Review*, *14*, 693–709.
- O'Donnell, O., van Doorslaer, E., Wagstaff, A., & Lindelow, M. (2008). *Analyzing health equity using household survey data: A guide to techniques and their implementation*. Washington, DC: World Bank. Retrieved from <https://openknowledge.worldbank.org/handle/10986/6896>
- Ortyl, T. A. (2013). Long-term heterosexual cohabiters and attitudes toward marriage. *Sociological Quarterly*, *54*, 584–609.

- Passias, E., Sayer, L. C., & Pepin, J. R. (2017). Who experiences leisure deficits? Mothers' marital status and leisure time. *Journal of Marriage and Family*, *79*, 1001–1022.
- Raley, S., & Bianchi, S. (2006). Sons, daughters, and family processes: Does gender of children matter? *Annual Review of Sociology*, *32*, 401–421.
- Raley, S., Bianchi, S. M., & Wang, W. (2012). When do fathers care? Mothers' economic contribution and fathers' involvement in child care. *American Journal of Sociology*, *117*, 1422–1459.
- Ray, R. (2014). An intersectional analysis to explaining a lack of physical activity among middle class black women. *Sociology Compass*, *8*, 780–791.
- Ray, R. (2015). Black people don't exercise in my neighborhood: Relationship between perceived racial composition and leisure-time physical activity among middle class blacks and whites. *Social Science Research*, *66*, 42–57.
- Ridgeway, C. L. (2006). Gender as an organizing force in social relations: Implications for the future of inequality. In F. D. Blau, M. C. Brinton, & D. B. Grusky (Eds.), *The declining significance of gender?* (pp. 265–287). New York, NY: Russell Sage Foundation.
- Ridgeway, C. L. (2011). *Framed by gender: How gender inequality persists in the modern world*. New York, NY: Oxford University Press.
- Salmon, J., Owen, N., Bauman, A., Schmitz, M. K. H., & Booth, M. (2000). Leisure-time, occupational, and household physical activity among professional, skilled, and less-skilled workers and homemakers. *Preventive Medicine*, *30*, 191–199.
- Sandberg, J. F., & Hofferth, S. L. (2001). Changes in children's time with parents: United States, 1981–1997. *Demography*, *38*, 423–436.
- Sanik, M. M., & Mauldin, T. (1986). Single versus two parent families: A comparison of mothers' time. *Family Relations*, *35*, 53–56.
- Sayer, L. C. (2005). Gender, time and inequality: Trends in women's and men's paid work, unpaid work and free time. *Social Forces*, *84*, 285–303.
- Sayer, L. C. (2010). Trends in housework. In J. K. Treas & S. Drobnic (Eds.), *Dividing the domestic: Men, women, and household work in cross-national perspective* (pp. 19–38). Stanford, CA: Stanford University Press.
- Sayer, L. C. (2016). Trends in women's and men's time use, 1965–2012: Back to the future? In S. M. McHale, V. King, J. Van Hook, & A. Booth (Eds.), *Gender and couple relationships* (pp. 43–78). New York, NY: Springer International Publishing.
- Sayer, L. C., Bianchi, S., & Robinson, J. P. (2004). Are parents investing less in children? Trends in mothers' and fathers' time with children. *American Journal of Sociology*, *110*, 1–43.
- Sayer, L. C., England, P., Allison, P., & Kangas, N. (2011). She left, he left: How employment and satisfaction affect men's and women's decisions to leave marriages. *American Journal of Sociology*, *116*, 1982–2018.
- Sayer, L. C., & Fine, L. (2011). Racial-ethnic differences in U.S. married women's and men's housework. *Social Indicators Research*, *101*, 259–265.
- Sayer, L. C., Freedman, V. A., & Bianchi, S. M. (2015). Gender, time use, and aging. In L. K. George & K. F. Ferraro (Eds.), *Handbook of aging and the social sciences* (8th ed., pp. 163–180). San Diego, CA: Elsevier.
- Schoen, R., & Cheng, Y. A. (2006). Partner choice and the differential retreat from marriage. *Journal of Marriage and Family*, *68*, 1–10.
- Shaw, S. M. (2008). Family leisure and changing ideologies of parenthood. *Sociology Compass*, *2*, 688–703.
- Shelton, B. A., & John, D. (1993). Does marital status make a difference? Housework among married and cohabiting men and women. *Journal of Family Issues*, *14*, 401–420.
- Smock, P. J. (2000). Cohabitation in the United States: An appraisal of research themes, findings, and implications. *Annual Review of Sociology*, *26*, 1–20.
- South, S. J., & Spitze, G. (1994). Housework in marital and nonmarital households. *American Sociological Review*, *59*, 327–347.
- Stevenson, B., & Wolfers, J. (2007). Marriage and divorce: Changes and their driving forces. *Journal of Economic Perspectives*, *21*(2), 27–52.
- Stewart, J. (2013). To Tobit or not Tobit? *Journal of Economic and Social Measurement*, *38*, 263–290.
- Stone, P. (2007). *Opting out? Why women really quit careers and head home*. Berkeley: University of California Press.
- Sweeney, M. M., & Raley, R. K. (2014). Race, ethnicity, and the changing context of childbearing in the United States. *Annual Review of Sociology*, *40*, 539–558.
- Thompson, L., & Walker, A. J. (1989). Women and men in marriage, work, and parenthood. *Journal of Marriage and the Family*, *51*, 845–871.

- U. S. Census Bureau. (2015). *Annual Social and Economic Supplement of the Current Population Survey*. Washington, DC: U.S. Census Bureau. Retrieved from <https://www.census.gov/programs-surveys/sahie/technical-documentation/model-input-data/cpsasec.html>
- van der Ploeg, H. P., Merom, D., Chau, J. Y., Bittman, M., Trost, S. G., & Bauman, A. E. (2010). Advances in population surveillance for physical activity and sedentary behavior: Reliability and validity of time use surveys. *American Journal of Epidemiology*, *172*, 1199–1206.
- Vernon, V. (2010). Marriage: For love, for money . . . and for time? *Review of Economics of the Household*, *8*, 433–457.
- Vespa, J., Lewis, J. M., & Kreider, R. M. (2013). *America's families and living arrangements: 2012—Population characteristics* (Report No. P20-570). Washington, DC: U.S. Census Bureau. Retrieved from <https://www.census.gov/prod/2013pubs/p20-570.pdf>
- Vickery, C. (1977). The time-poor: A new look at poverty. *Journal of Human Resources*, *12*, 27–48.
- Wearing, B., & Wearing, S. (1988). 'All in a day's leisure': Gender and the concept of leisure. *Leisure Studies*, *7*, 111–123.
- Weichselbaumer, D., & Winter-Ebmer, R. (2005). A meta-analysis of the international gender wage gap. *Journal of Economic Surveys*, *19*, 479–511.
- West, C., & Zimmerman, D. H. (1987). Doing gender. *Gender & Society*, *1*, 125–151.
- Williams, K., Sassler, S., Frech, A., Addo, F., & Cooksey, E. (2011). Nonmarital childbearing, union history, and women's health at midlife. *American Sociological Review*, *76*, 465–486.
- Zick, C. D., & Bryant, W. K. (1996). A new look at parents' time spent in child care: Primary and secondary time use. *Social Science Research*, *25*, 260–280.