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# Household Income Differentiates Quantity and Quality of Shared Spousal Time

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Shared time is a centrally important component of relationship maintenance, and over the past few decades, couples have reported spending increasingly more time together. However, over this same time period divorce rates have risen much higher for lower income couples compared to higher income couples. One theorized explanation for the disparity in divorce rates between lower and higher income couples is a difference across the socioeconomic strata in the quantity and quality of time couples spend together. This theory argues that lower income couples may experience a time deficit because they face a greater number of stressors that take up time, diminishing the *quantity* of time they have available to spend together. They may also need to use the time they do have available to deal with stressors rather than engaging in more enjoyable activities together, diminishing the *quality* of time they share. Using a sample of  $N = 14,788$  respondents from the American Time Use Survey, the present study examined whether household income was associated with the quantity and quality of time married couples spend together. Consistent with predictions, lower income couples spent less alone time together but this was moderated by weekday versus weekend and presence of children. Lower income couples also reported higher levels of stress during time spent with their spouse than higher income couples, and this association was moderated by hours worked by the couples. Results support the theory, indicating that quantity and quality of time may be important factors in understanding differences in relationship outcomes between lower and higher income couples.

**Keywords:** time use, household income, couples, marriage, socioeconomic status

Lower income couples are more likely to divorce compared to their higher earning counterparts but the factors contributing to this disparity remain unclear (Trail & Karney, 2012). One theorized explanation for the socioeconomic disparity in divorce rates is a higher degree of “constraint on time use” experienced by lower income couples. This theory dubbed the “Two Route Model of Stress Effects on Marriage” suggests that the constraints that result from external stressors decrease the quantity of time that low-income couples have to spend together and diminish the quality of the shared time they do have (Karney & Neff, 2013; Neff & Karney, 2017). Shared time between spouses is central to relationship maintenance because it provides the opportunity to engage in prorelationship activities together. Thus, if shared spousal time differs by household income, then lack of shared quality time may be a factor contributing to the disproportionately high rate of divorce for lower income couples. This theory is backed by suggestive evidence which indicates that couples who are facing greater demands outside the home share less quality time together in activities such as leisure and sex (Bodenmann et al., 2007; Crouter

et al., 2001). However, the contention that quantity and quality of shared spousal time differs by household income has not been rigorously tested. Thus, the present study aims to examine whether there is support for the hypothesis put forth by the “Two Route Model of Stress” that lower income couples have less quantity and quality of shared spousal time compared to higher income couples.

Sharing time together is vitally important for romantic relationships because it allows for opportunities to engage in relationship maintenance behaviors such as sharing positive moments, providing social support, and building intimacy (Ogolsky & Bowers, 2013). Accordingly, shared spousal time is linked with relationship well-being concurrently and prospectively. Spouses who spend more time together have more positive relationship outcomes, including higher levels of relationship satisfaction, lower levels of conflict, and greater marital stability (Claxton & Perry-Jenkins, 2008; Girme et al., 2014; M. D. Johnson & Anderson, 2013). Shared time between spouses has been increasing over the past few decades, and shared leisure time in particular has increased, which should be a net positive for relationship well-being (Genadek et al., 2016;

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Data and materials are available through IPUMS (<https://www.atuser.org/atus/>). Analysis code is available at <https://osf.io/aq3tw>. This study's design and its analysis were not preregistered.

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Voorpostel et al., 2010). However, the literature has been equivocal on whether shared spousal time differs across socioeconomic status: Some studies indicate that higher income couples have more shared time (e.g., Sevilla et al., 2012), whereas others indicate that higher income couples spend less time together (e.g., Genadek et al., 2020).

Absent clear data indicating that lower income couples face a shortage of time together, the “Two Route Model of Stress” makes this prediction based upon suggestive evidence that lower income couples face a greater number of daily stressors external to their relationship that take up time (Roy et al., 2004). For example, low-income individuals face greater wait times for basic services such as shopping or medical care, and experience a disproportionate administrative paperwork burden compared to higher income individuals (Holt & Vinopal, 2021; Schanzenbach, 2009). They are also more likely to work nonstandard schedules, which leads to less time spent with their families in comparison to those with standard schedule jobs because they are often at work when other family members have time off from work or school (Enchautegui, 2013). In addition, they are often asked to work shifts with little notice, which disrupts the time that they were going to spend with family members and often requires a stressful and time-consuming search for available childcare (Carrillo et al., 2017; Lambert, 2008). Low-income individuals are also more likely to use public transportation than higher earning individuals and have longer commutes to work (Anderson, 2016; Murphy et al., 2022; Roy et al., 2004). The time that low-income individuals spend dealing with these demands and stressors is time that is no longer available to spend with their spouse. Indeed, low-income couples report having difficulty in finding time to spend together (Trail & Karney, 2012), suggesting that the demands for their time outside of the relationship are negatively affecting the time they have together.

Higher earning couples appear to be at an advantage in their ability to spend time together; not only do they not face these stressors that eat away at their time, they are also more likely to be able to synchronize their schedules (Hamermesh, 2000) and more likely to have the ability to gain more time by making time-saving purchases (e.g., grocery delivery, laundry service). For example, women who hire household help spend less time on housework and experience less time pressure compared to women who do not outsource housework (Craig et al., 2016), and time-saving purchases promote greater relationship satisfaction by enabling couples to spend more time together (Whillans et al., 2018). Thus, higher income couples appear to be able to overcome demands on their time by outsourcing undesirable tasks to others, which frees up time to spend together.

The evidence reviewed thus far suggests that higher income couples are likely to have more time to spend with their spouse than lower income couples, consistent with the “Two Route Model of Stress” (Karney & Neff, 2013; Neff & Karney, 2017). However, there is also some evidence to suggest that the opposite might be true; it is possible that lower income couples may be spending more time together than higher income couples. For example, low-income individuals are more likely than higher income individuals to work part-time or be unemployed (U.S. Bureau of Labor Statistics, 2021) and are less able to afford outside childcare, which often requires one parent to stay home (Mattingly et al., 2016). These factors lead to less time spent at work, and therefore potentially more time spent at home with family. In contrast, higher earning individuals tend to have occupations that require more time spent at work, and greater

job demands (i.e., task pressure, job intensity, time urgency), all of which result in less time spent at home with family (Solomon et al., 2022). Thus, it is possible that the relatively longer hours worked by higher income individuals may lead to a greater deficit in shared time among these couples, compared to lower earning couples.

Although the availability of shared spousal time is a necessary component of relationship well-being, it is not sufficient on its own. The quality of the time spent together, including whether it is experienced as satisfying, positive, and enjoyable, is highly influential. Quality time often involves activities such as shared leisure activities or relationship-enhancing activities that promote closeness between partners (Sullivan, 1996), and the more couples engage in these types of activities together, the greater their relationship quality (Crawford et al., 2002; Girma et al., 2014; H. A. Johnson et al., 2006). Although leisure activities that are more engaging or novel tend to increase an individual’s feelings of closeness toward their partner more than routine leisure tasks (Graham, 2008), partners’ satisfaction with their time together seems to be of greatest importance: satisfaction with shared spousal time is more predictive of marital satisfaction than the amount of time spent in shared activities (Ward et al., 2014).

However, the ability to spend time engaging in enjoyable activities with one’s spouse (i.e., quality time) may not be equally accessible to all. One factor that differentiates lower and higher income couples is the amount of daily external stressors that lower income couples face, such as housework, informal caregiving, and managing finances (Cash et al., 2005; Jackson et al., 2016; Williams et al., 2003). Because lower income couples face more challenges and stressors, they may be forced to spend more of their time engaged in activities such as housework and care work, rather than leisure activities, and they may experience their shared time as more stressful and less happy, regardless of the amount of time they have together (Saxbe et al., 2011).

In sum, one theory for the socioeconomic disparity in marital outcomes is that lower income couples experience a higher degree of “constraint on time use” than higher income couples. This constraint is theorized to manifest in a reduction in the quantity of time they have to spend together and in a decrease in the quality of the shared time they do have (Karney & Neff, 2013; Neff & Karney, 2017). To test this hypothesis, the present study uses time diary data from a large, nationally representative sample of married individuals gathered through the American Time Use Survey (ATUS) to examine whether the quantity and quality of time couples spend together differs by household income. Specifically, we test three research questions: (a) Does the amount of time spouses spend alone together differ by household income? (b) Do feelings of happiness and stress during time spent alone with one’s spouse differ by household income? and (c) Do factors known to be related to shared spousal time, including day of the week, presence of children in the home, and work hours, moderate the effect of income on quantity and quality of shared spousal alone time?

The “constraint on time use” theory does not specify whether exclusive spousal time (i.e., time spent with one’s spouse and no one else) or total spousal time (i.e., all time spent with one’s spouse, including exclusive time and time when others are present) is theorized to be the active mechanism. This is likely because the existing literature has not been clear about which version of spousal time is more important in determining relationship outcomes, and in fact, many studies are not even clear about which version they are

measuring. Absent clear guidance from the literature, we have chosen to focus on exclusive spousal time because couples are most likely to be able to engage in important relationship maintenance activities, such as shared leisure time and sexual activity when they are alone together, and feelings of happiness and stress during time shared with others may be due to some other influence, such as engaging in parenting activities (Kahneman & Krueger, 2006; Negraia & Augustine, 2020).

Empirically testing the theory that low-income couples spend less time together, and that time spent together is of lower quality compared to higher earning couples, will help elucidate whether this is a potentially viable mechanism for explaining the disparity in divorce rates between lower and higher income couples.

## Method

### Sample

Data were drawn from the ATUS, a nationally representative cross-sectional survey administered each year to a subset of respondents completing the Current Population Survey (CPS). For the present study, data were obtained using the IPUMS data extract system (Flood et al., 2022). Respondents reported on their activities for one 24-hr period, referred to as the diary day, via a semi-structured interview administered over the phone. The diary day began at 4:00 a.m. the prior day and ended at 4:00 a.m. on the day of the interview. Respondents reported on what activities they were doing, how long each activity lasted, where they were during the activity, and who was present for the activity. Analyses were limited to individuals who reported that they were married and that their spouse was present in the household at the time of the diary (i.e., not incarcerated, away on military service, etc.). Additionally, individuals reporting that they were retired were excluded from analyses because retired couples may have greater opportunities to spend time together regardless of household income status. In the years 2010, 2012, and 2013, an ancillary well-being module was fielded to collect additional information about health and well-being. These additional questions (detailed below) are required to answer our research questions about quality of time. Thus, we use the combined sample of ATUS participants from 2010, 2012, and 2013 ( $N = 14,788$ ) to test our hypotheses.

### Measures

#### Income

Household income was collected at the final CPS interview, which took place approximately 2–5 months prior to the time diary. Respondents were asked to report the combined income of all household members from the past 12 months. In order to account for differences in household sizes which result in different levels of effective income per person, we combine household income and household size to calculate the respondent's income to poverty ratio. First, the federal poverty threshold for the household is determined using the number of people in the household and the year of data collection (Office of the Assistant Secretary for Planning and Evaluation, 2021), then the household income is divided by the poverty threshold. An income to poverty ratio of  $<1$  means that the household's income is below 100% of the federal poverty level which indicates that the household is in poverty. A ratio of between

1 and 2 means that household's income is between 100% and 200% of the federal poverty level, which is typically considered "low-income." Finally, a higher ratio, such as 4 for example, means that the household's income is 4 times the poverty level.

#### Quantity of Time With Spouse

The total time, in minutes, respondents reported spending alone with their spouse during the 24-hr period was calculated by summing the number of minutes spent in each activity in which the spouse was the only other person present. The presence of others is not asked for times during which respondents reported sleeping, grooming, or engaging in personal/private activities, thus the total time with spouse is exclusive of these activities.

#### Quantity of Time With Spouse in Leisure and Housework Activities

The ATUS has a standard coding system that categorizes each reported activity into one of eighteen categories. Two activity groups representing activities of primary interest in the present study were created using existing procedures for combining the activity categories (e.g., Pepin et al., 2018). *Leisure* includes eating and drinking; socializing, relaxing, and leisure; sports, exercise, and recreation; religious and spiritual activities; and volunteer activities. *Housework Activities* includes household activities (e.g., cooking, cleaning); consumer purchases (e.g., shopping); professional and personal care services (e.g., legal, medical services); household services (e.g., hiring a plumber); and government services and civic obligations (e.g., filling out forms to receive compensation). Activities that ATUS classified into categories "telephone calls" and "traveling" were divided into the three activity categories according to the type of phone call/travel reported. For example, telephone calls to/from household service providers were included in the *housework activities* category.

#### Quality of Time With Spouse

As part of the Well-Being Module, respondents were asked to rate the extent to which they experienced various emotions during three randomly selected activities on their diary day. The possible range of ratings was from 0 (*not at all*) to 6 (*very much*). To be selected, activities had to be at least 5 min long and could not be activities related to sleeping, grooming, or personal care. We used ratings of *happiness* and *stress* for activities that occurred with one's spouse as a measure of the quality of time spent together.

#### Household Children

The ATUS provides a variable in which each respondent was coded *Yes* or *No* for whether they have children under age 18 residing in their household.

#### Total Work Hours

Respondents reported the typical number of hours they and their spouse work each week at paid employment. These two numbers were summed to determine the total number of hours spent at work by the couple.

## Transparency and Openness

We report how we determined our sample size, all data exclusions, all manipulations, and all measures in the study, and we follow journal article reporting standards. Data and materials are available through IPUMS (<https://www.atusdata.org/atus>). Analysis code is available at <https://osf.io/aq3tw>. Data were analyzed using Stata v17 (StataCorp, 2021). This study's design and its analysis were not preregistered.

## Analytic Plan

A series of ordinary least squares regression models were estimated, with person-level weights incorporated in all analyses to account for the complex sampling procedures of the ATUS and to make the estimates nationally representative (Flood et al., 2022). Calculations of quantity and quality of time also incorporated the well-being activity weights to account for additional sampling design procedures that determine selection of activities for the well-being module and account for nonresponse to the well-being module. In line with other studies using the ATUS data set (e.g., Pepin et al., 2018), we also control for weekday, which is the day of the week that the time diary was completed, to account for differences in the amount of time spouses may spend together during the week versus weekend. A dichotomous measure with weekday coded as 1 and weekend coded as 0 was included in all analyses.

All models were initially fitted with a linear and squared term for household income in the model, to test for curvilinear effects of income. If the quadratic effect was nonsignificant it was dropped from the model and only a linear model was fitted.

## Results

Descriptive statistics for sample demographics as well as the quantity of time and quality of time variables are provided in Table 1. The sample was restricted to couples in which neither partner was retired, thus participants were primarily in their 30s, 40s, and 50s ( $M = 45$  years,  $SD = 12$  years). The majority of participants were employed (80%), with 4% reporting that they were unemployed and looking for work, and 16% reporting that they were not in the labor force. Couples worked a cumulative 63 hr per week on average ( $SD = 27$  hrs).

The majority of participants were White non-Hispanic (71%), followed by Hispanic (16%), Black (7%), Asian or Pacific Islander (5%), multiracial (<1%), and Native American (<1%). Participants had a broad range of formal education; 9% had less than a high school degree, 28% had a high school degree, 24% had some college or an associate's degree, 24% had a college degree, and 14% had a graduate degree. Slightly more than half (54%) of couples had children in the home. The average income to poverty ratio was 3.4 ( $SD = 2.1$ ), which indicates that the household income is 340% of the federal poverty level for their household size.

Quantity of time estimates are based on one 24-hr day or 1,440 min. On average, respondents spent 152 min alone with their spouse, which is consistent with past estimates for exclusive spousal time which range from 63 to 271 min (Genadek et al., 2016, 2020; Voorpostel et al., 2010). Of their alone time, couples spent 105 min on leisure activities, whereas 33 min were spent on housework. Ratings of happiness indicated that people were fairly happy when

**Table 1**

*Descriptive Statistics of Analytic Sample*

Variable	<i>M (SD) or %</i>
Age (years)	45.36 (11.68)
Sex	51% male, 49% female
Race/ethnicity	
White (non-Hispanic)	71.2%
Hispanic	15.7%
Black	6.8%
Asian or Pacific Islander	4.8%
Multiracial	0.8%
Native American	0.7%
Education	
Less than HS degree	9.4%
HS degree	28.2%
Some college or AA degree	24.1%
College degree	24.0%
Graduate degree	14.3%
Employment status	
Employed	79.7%
Unemployed	4.2%
Not in labor force	16.1%
Child in the household	45.8% no, 54.2% yes
Total weekly hours worked by the couple	62.9 (27.3)
Income to poverty ratio	3.4 (2.1)
Total time spent alone together (minutes)	151.8 (183.5)
Leisure time spent alone together (minutes)	105.0 (135.7)
Housework time spent alone together (minutes)	33.0 (76.0)
Happiness during time spent alone with spouse	4.5 (1.3)
Stress during time spent alone with spouse	1.1 (1.5)

*Note.* Estimates incorporate survey weights.  $N = 14,788$ . HS = High School; AA = Associate.

spending time alone with their spouse, with an average happiness rating of 4.5 (on a 0–6 scale). Ratings of stress indicated that people experienced relatively low levels of stress when spending time alone with their spouse, with an average level of 1.1 (on a 0–scale).

## Associations Between Income and Quantity of Time

Table 2 presents results from the regression models testing the main effect of household income on the quantity of time spent with spouse, as well as the three moderation models. For the main effect of household income on total time with spouse, there was a significant quadratic effect of income, such that as household income increased, the amount of shared spousal time increased exponentially, as seen in Panel A of Figure 1. For households with an income to poverty ratio of 1 (i.e., those living at the poverty line), spouses spent 144 min together. When the household income to poverty ratio increases to 5 (i.e., those whose income is five times the poverty level), shared spousal time increases only a small amount, to 155 min, but when the household income to poverty ratio increases to 10 (i.e., those whose income is ten times the poverty level), shared spousal time increases to 217 min.

Next, we tested whether the effect of income was moderated by weekday versus weekend day, total hours worked by the couple, and the presence of children in the household. First, the interaction between income and work hours was not significant, indicating that the association between income and quantity of time was not moderated by the total hours worked by the couple.



**Table 2**  
Results of Regression Analyses for Quantity of Time Alone With Spouse

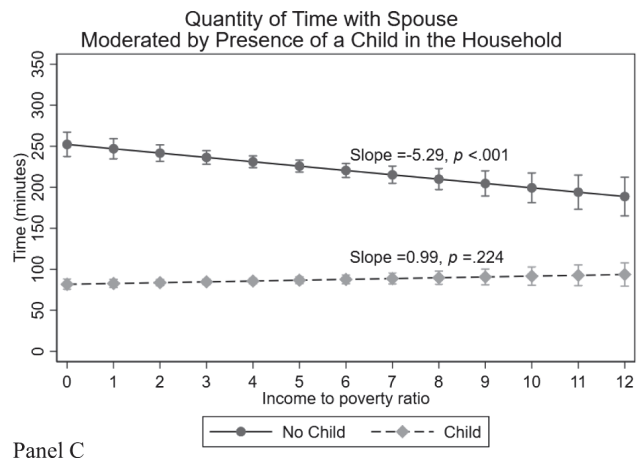
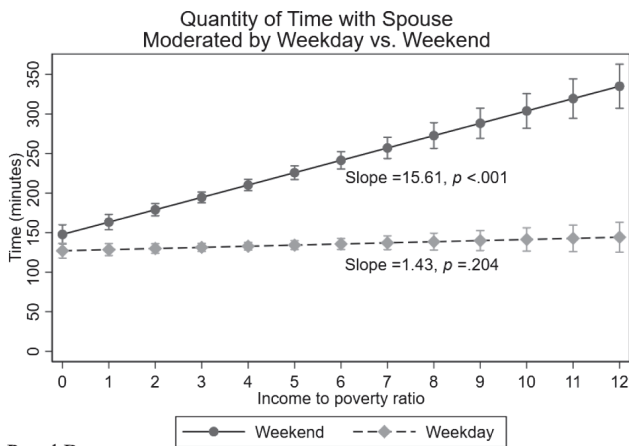
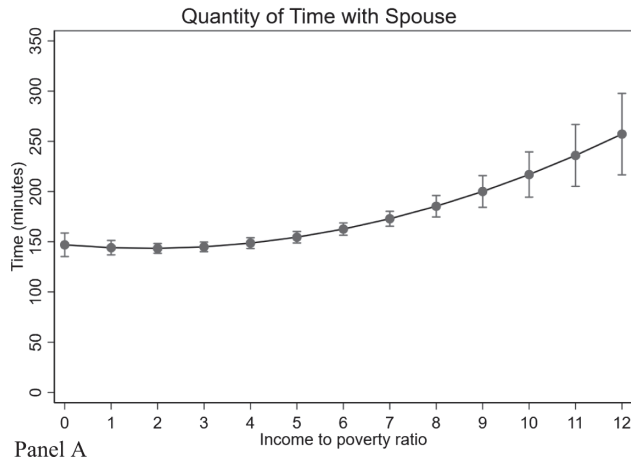
Variable	Main effect	Moderated by day of week	Moderated by work hours	Moderated by child in household
Income	-3.961	15.610***	5.666*	-5.293***
Income <sup>2</sup>	1.096**	—	—	—
Weekday	-68.780***	-20.625**	-70.783***	-70.479***
Weekday × Income	—	-14.183***	—	—
Work hours	—	—	-1.285***	—
Work Hours × Income	—	—	0.070	—
Child	—	—	—	-170.491***
Child × Income	—	—	—	6.287***
Constant	196.059***	147.736***	246.752***	302.544***
R <sup>2</sup>	0.031	0.036	0.055	0.174

Note. Test statistics are from OLS regressions which incorporate survey weights. *N* = 14,788. OLS = ordinary least squares  
\* *p* < .05. \*\* *p* < .01. \*\*\* *p* < .001.

Second, the interaction between income and day of week was significant, such that the association between income and quantity of time differs on weekdays compared to weekends. As shown in Panel B of Figure 1, the quantity of time spouses spend together on weekdays does not differ by level of income. However, the quantity

of time spouses spend together on weekends significantly differs by income, such that higher income couples spend significantly more time together on the weekend than lower income couples. For households with an income to poverty ratio of 1, spouses spent 163 min together on weekend days. When the household income to

**Figure 1**  
Results of Regression Analyses for Quantity of Time Alone with Spouse



poverty ratio increases to 5, shared spousal time increases to 226 min on weekend days, and when the household income to poverty ratio increases to 10, shared spousal time increases to 300 min on weekend days.

Finally, the interaction between income and presence of children was significant, such that the association between income and quantity of time differs depending on whether there is a child in the household. As shown in Panel C of Figure 1, for couples with children, the quantity of time spouses spend together does not differ by level of income. However, the quantity of time couples without children spend alone significantly differs by income, such that higher income couples spend significantly less time together than lower income couples. For households with an income to poverty ratio of 1, spouses with no children spent 247 min together. When the household income to poverty ratio increases to 5, shared spousal time for spouses with no children decreases to 226 min, and when the household income to poverty ratio increases to 10, shared spousal time for spouses with no children decreases to 199 min.

We also examined the main effect of household income on the quantity of time spouses spend alone together in leisure and housework. For leisure activities, there was a significant quadratic effect of income (coef = .68,  $p = .007$ ) such that as household income increased, the amount of shared leisure time increased exponentially. For households with an income to poverty ratio of 1, spouses spent 100 min together in leisure. When the household income to poverty ratio increases to 5, shared spousal time in leisure increases only a small amount to 107 min but when the household income to poverty ratio increases to 10, shared spousal time in leisure increases to 147 min.

For housework, the quadratic effect of income was nonsignificant but there was a significant linear effect of income (coef = .99,  $p = .011$ ), such that shared housework time increased as income increased. For households with an income to poverty ratio of 1, spouses spent 31 min together in housework. When the household income to poverty ratio increases to 5, shared spousal time in housework increases to 35 min, and when the household income to poverty ratio increases to 10, shared spousal time in housework increases to 40 min.

### Associations Between Income and Quality of Time

Table 3 presents the results from the regression models testing the association between household income and ratings of happiness

during time spent alone with one's spouse, as well as the three moderation models. Curvilinear effects of income were tested and were found to be nonsignificant for all models predicting level of happiness. In addition, there was no linear main effect of income on happiness during time with one's spouse, and the three moderators were all nonsignificant, indicating that spouses were equally happy while spending time together, across all of these dimensions

Table 4 presents the results from the regression models testing the association between household income and ratings of stress during time spent alone with one's spouse, as well as the three moderation models. Curvilinear effects of income were tested and were found to be nonsignificant for all models predicting level of stress. For the main effect of household income on total time with spouse, there was a significant linear effect of income such that stress decreased as income increased, as seen in Panel A of Figure 2.

Next, we tested whether the effect of income was moderated by weekday versus weekend day, total hours worked by the couple, and the presence of children in the household. First, the interactions between income and day of the week, and income and presence of children in the household were not significant, indicating that the association between income and stress during shared spousal time was not moderated by either of these factors.

Second, the interaction between income and total work hours was significant, such that the association between income and stress differs depending on the cumulative hours worked by the couple. As shown in Panel B of Figure 2, couples who worked a cumulative 80 hr per week experienced the same level of stress during time with their spouse, regardless of income (slope =  $-.02$ ,  $p = .170$ ). However, couples with fewer cumulative work hours experienced higher levels of stress at lower levels of income and lower levels of stress at higher levels of income (simple slope for 40 cumulative work hours =  $-.09$ ,  $p < .001$ ; simple slope for 0 cumulative work hours =  $-.15$ ,  $p < .001$ ).

### Discussion

Shared spousal time is important for relationship well-being, and evidence suggests that overall couples are spending more time together than in decades past. However, the increase in shared spousal time may not have reached all couples across socioeconomic strata equally; one theorized explanation for the higher rate of divorce observed in lower income couples is a "constraint on time

**Table 3**  
*Results of Regression Analyses for Happiness During Time Alone With Spouse*

Variable	Main effect	Moderated by day of week	Moderated by work hours	Moderated by child in household
Income	-0.019	-0.026*	0.004	-0.015
Weekday	-0.107*	-0.146	-0.116*	-0.114*
Weekday × Income	—	0.011	—	—
Work hours	—	—	0.004*	—
Work Hours × Income	—	—	-0.001	—
Child	—	—	—	0.005
Child × Income	—	—	—	-0.046
Constant	4.665***	4.691***	4.457***	4.693***
R <sup>2</sup>	0.002	0.002	0.004	0.005

*Note.* Test statistics are from OLS regressions which incorporate survey weights.  $N = 14,788$ . OLS = ordinary least squares.

\* $p < .05$ . \*\*\* $p < .001$ .

**Table 4**  
Results of Regression Analyses for Stress During Time Alone With Spouse

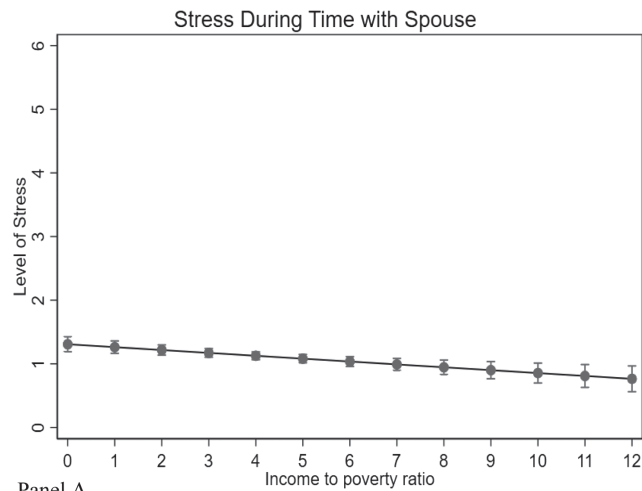
Variable	Main effect	Moderated by day of week	Moderated by work hours	Moderated by child in household
Income	-0.045***	-0.058***	-0.150***	-0.042**
Weekday	0.220***	0.146	0.206***	0.229***
Weekday × Income	—	0.020	—	—
Work hours	—	—	-0.006**	—
Work Hours × Income	—	—	0.002***	—
Child	—	—	—	0.129
Child × Income	—	—	—	0.028
Constant	1.153***	1.202***	1.531***	1.071***
R <sup>2</sup>	0.009	0.009	0.015	0.013

Note. Test statistics are from OLS regressions which incorporate survey weights.  $N = 14,788$ . OLS = ordinary least squares.  
\*\*  $p < .01$ . \*\*\*  $p < .001$ .

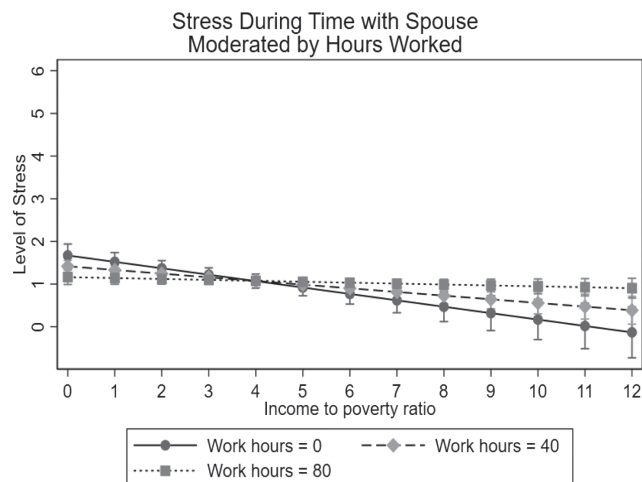
use,” in which external stressors diminish the quantity and quality of shared spousal time for lower income couples (Karney & Neff, 2013). Utilizing a nationally representative sample of respondents

from the ATUS, the present study provided a direct test of the viability of this hypothesized mechanism by testing whether the quantity and quality of time spouses spend together differs by couples’ household income status.

**Figure 2**  
Results of Regression Analyses for Stress During Time Alone with Spouse



Panel A



Panel B

The theory that lower income couples suffer from greater constraints on their time use posits that these external constraints have two pathways through which they undermine marital well-being; “reducing opportunities for activities that promote and nourish the relationship, while simultaneously increasing opportunities for conflicts and tensions to arise” (Neff & Karney, 2017, p. 107). In regards to the first hypothesized pathway, that lower income couples have reduced opportunities for activities that promote and nourish the relationship, we found evidence mostly in support of this claim. Overall, lower income couples spent less time alone together than higher income couples, and importantly, this was also true of leisure time spent alone with their spouse, which is a key opportunity for prorelationship behavior and is consistently linked with positive relationship outcomes (Crawford et al., 2002; H. A. Johnson et al., 2006).

There were also important moderators of this pattern, including day of the week: the income differential in shared spousal time was only evident on weekends and not on weekdays. Lower income couples had relatively limited alone time together regardless of whether it was a weekday or weekend, whereas higher income couples had limited alone time together on weekdays but much more plentiful alone time together on weekends. This is consistent with past research which indicates that higher income couples have more control over their schedules and are better able to coordinate in order to spend time together (Chenu & Robinson, 2002; van Klaveren & van den Brink, 2007).

The effect of presence of children in the household was also tested, and consistent with past research there was a main effect on time, such that couples with children spent much less time alone together than couples without children (Dew, 2009; Flood & Genadek, 2016). We extend this past work by examining whether presence of children also moderated the effect of income. We found that couples with a child in the household had equal amounts of alone time together regardless of their income level, consistent with past research which also documented no differences in alone time together for lower socioeconomic status versus higher socioeconomic status parents (Fein, 2009). However, for couples without



children, there was an income differential, such that lower income couples had significantly *more* time together than higher income couples. This result is not consistent with the theoretical model and indicates the need for more research specifically on lower income couples without children, to better understand this group who are often overlooked in favor of research on low-income parents.

In regards to the second hypothesized pathway, that lower income couples experience increased opportunities for conflicts and tensions to arise, we also found evidence tentatively in support of this claim. Our results indicate that lower income couples experience the same amount of happiness together as higher income couples but they experience significantly higher levels of stress than higher income couples. Couples who are experiencing high levels of stress are more likely to engage in more negative and less positive and effective communication, suggesting that spending stressful alone time together could create the opportunity for increased tension and conflict (Williamson et al., 2013). Further research is needed to understand what is transpiring during lower income couples' time together. Additionally, levels of stress were moderated by hours worked, such that lower income couples who work fewer hours experienced more stress during time with their spouse, whereas those who work 80 cumulative hours experienced the same amount of stress as higher income couples. This suggests that being unemployed or underemployed may play a key role in the stress experienced by lower income couples.

Overall, results indicate that constraints on time use may be an important factor impacting the relationships of lower income couples, which has important implications for interventions targeting these couples. These interventions have traditionally focused on improving the behaviors exchanged between partners (Hawkins & Erickson, 2015) but if partners are limited in the time that they have to spend together, then they have few opportunities to implement these behavioral strategies. Thus, an intervention that focuses on increasing the amount of time that partners have to spend together, by aligning work schedules, or increasing the resources available to make time-saving purchases, may be a more effective upstream strategy (Giurge et al., 2020; Whillans et al., 2017, 2018).

Despite the novel contributions of this work, it is not without limitations. A strength of the ATUS is that it provides highly precise estimates of time usage. However, the ATUS data are limited in the ability to inform our understanding of spousal interactions because it only asks respondents to report on who was present during each activity but does not specify whether the individuals were engaged in the activity with the respondent or whether they were simply present in the room. More naturalistic observations of couples are needed to better understand the specific ways that lower income couples experience their time together during their day-to-day lives (e.g., Saxbe et al., 2011). Additionally, the ATUS does not collect any data pertaining to relationship quality, precluding the ability to directly test whether the observed differences in quantity and quality of time contribute to relationship outcomes, or whether differences in relationship quality contribute to differences in quantity and quality of time. For example, it is conceivable that less satisfied couples may choose to spend less time together, or feel more stressed when alone with their partner. Furthermore, our sample consists of married individuals who are primarily middle-aged and employed, with many also raising children. This mid-life period is characterized by the need to balance multiple roles, such as caring for children and aging parents while investing in career success,

which can make this a particularly busy and constrained period of the life course (Infurna et al., 2020). Thus, the results for shared spousal time obtained from our sample may not generalize to those in other periods of life, such as retirement or early adulthood. Finally, we chose to focus on exclusive shared spousal time as the aspect of shared time that is most relevant to the "constraints on time use" theory. However, other aspects of time shared between partners, such as family mealtime and seeing one's partner being a good parent, are also important for family and relationship outcomes (Fiese, 2021; Fiese et al., 2006; Halpern-Meekin, 2019). Although it was beyond the scope of the present article, it will be important to examine systematic differences across socioeconomic status in these types of shared time as well.

Notwithstanding these limitations, this study provides an empirical test of the theory that "constraints on time use" contribute to poor relationship outcomes among lower income couples using a nationally representative sample of married individuals. Consistent with the theory, results show that lower income couples spend less time alone with their spouse than higher income couples, indicating that lack of time together is a potentially viable explanation for population level differences in relationship outcomes across socioeconomic status. In addition, lower income individuals reported experiencing higher levels of stress during time with their spouse compared to higher income individuals. Thus, it will be important moving forward to further examine the role of quantity and quality of time, including the effects of stress on shared spousal time, as a potential factor contributing to the disparity in divorce rates between lower and higher income couples.

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