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Trends in Spouses' Shared Time in the United States, 1965-2012

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## Trends in Spouses' Shared Time in the United States, 1965-2012

**Abstract:** Despite major demographic changes over the past fifty years and strong evidence that time spent with a spouse is important for marriages, we know very little about how time with a spouse has changed, or not changed, in the United States. Using time use survey data from 1965-2012, we examine trends in couples' shared time in the United States during a period of major changes in American marriages and families. We find that couples without children spend more total time together and time alone together now than they did in 1965, both peaking in 1975. For parents, time spent together increased continually over the period, most dramatically for time spent with a spouse and children. Decomposition analyses show that changes in behavior rather than changing demographics explain these trends, and we find that the increases in couples' shared time are primarily concentrated in leisure activities.

Keywords: Marriage, Family, Trends in time use

## **Introduction**

Couples' shared time is a strong predictor of marital well-being (Daly 2001; Gager and Sanchez 2003; Milkie and Peltola 1999). Evidence shows that couples actively work to coordinate work schedules and leisure time (Hallberg 2003; Hammermesh 2002); time with a spouse is more enjoyable (Sullivan 1996) and yields greater happiness and meaning (Flood and Genadek forthcoming) than time spent apart; and, many people report that they would like to spend more time with their spouses (Bianchi et al. 2006; Nomaguchi et al. 2005; Roxburgh 2006). Despite this strong evidence that time spent with a spouse is important, enjoyable, and desirable, we know very little about how time with a spouse has changed, or not changed, over the last half of a century in the United States.

The major demographic changes affecting marriages and families may also have affected changes in couples' shared time. Rises in cohabitation and divorce (Kennedy and Ruggles 2014; Manning et al. 2014), reductions in family size (Lesthaeghe 1995) and increased women's labor force participation (Goldin 2006) are key characteristics of changes in marriages and families over the second half of the 20<sup>th</sup> century. Indeed we know that the norms and values surrounding parenthood have shifted toward more intensive parenting with parents investing more time in children today than previously (Bianchi et al. 2012; Hays 1998; Sayer et al. 2004). These major demographic changes, especially for parents, suggest that the amount and type of time married couples spend together may have changed as well. In this paper, we document trends in couples' shared time, empirically disentangle the compositional and behavioral factors underlying these trends, and analyze differences in what couples do together today versus in previous decades.

Several studies have investigated changes in time allocation of married individuals over the past fifty years, but few examine changes in couples' time together. Previous research on couples' shared time has found that couples' time spent alone together has decreased since 1975 (Dew 2009) and shared leisure time has increased (Sevilla et al. 2012; Voorpostel et al. 2009, 2010). We extend this limited

research on changes in couples' shared time in three ways. First, we broaden the scope of previous work by considering three measures of time with a spouse: time alone with a spouse, time spent with a spouse and children, and total time with a spouse. Second, we use American Heritage Time Use Survey data spanning nearly a half century to examine couples' shared time from 1965 to 2012, extending the temporal scope considered in prior investigations. Finally, we demonstrate the importance of accurate data harmonization for making over-time comparisons of couples' shared time.

We find that couples spend more time together overall now than they did in 1965 despite previous research and population trends that might suggest otherwise. Individuals also spend more time alone with a spouse than in 1965, and there have been large increases in time the couples spend *together* with their children. In decomposing the increases in couples' shared time to estimate the impact of behavioral change versus compositional changes in the population, we find that the differences in time shared with a spouse between 1965 and 2012 are driven largely by changes in behavior. The most dramatic increases in total shared time have occurred in leisure and television watching, yet the share of total time spent watching television done with a spouse has actually declined. For parents, shared time spent in childcare has increased significantly and steadily over time.

## **Background**

The last fifty years have seen seismic changes for American marriages and families. The divorce rate increased dramatically (Kennedy and Ruggles 2014), and non-marital cohabitation became widespread (Bumpass and Sweet 1989; Smock 2000). Individuals now marry later and are more likely to cohabit prior to marriage than fifty years ago (Manning et al. 2014). Cherlin (2004) has argued that marriage has become less institutionalized and more individualized. There is evidence of greater individualization in marriage given the rise in divorce, the rise in couples without children, and a more equitable division of labor. There are, however, concerns that the individualization of marriage is overstated. Yodanis and Lauer (2014) argue that other patterns (e.g. shared bank accounts, last names,

and time) suggest that couples are still quite interdependent units. Indeed, economic theory suggests that declines in the gender division of labor should increase assortative mating in marriage (Lam 1988; Lundberg and Pollak 2007), which is empirically documented for the case of education (Schwartz and Mare 2005). Greater similarities between members of a couple mean that there is increased joint consumption (Mansour and McKinnish 2014; Stevenson and Wolfers 2007).

Greater interdependence among couples (Yodanis and Lauer 2014) combined with consumption complementarities (Lam 1988; Lundberg and Pollak 2007; Stevenson and Wolfers 2007) suggest that couples today should spend more time together than they did previously. In support of this expectation, time diary estimates of leisure shared with a spouse (and potentially others) show a slight increase between 1965, 1975, and 2003, on average (Sevilla et al. 2012; Voorpostel et al. 2009). Nevertheless, there is also evidence that couples spend less time alone together today than previously (Dew 2009; Amato et al. 2007).

Changes in the ways individuals spend their time over past five decades have also influenced who they spend their time with. Some activities are more conducive to being done with others, including a spouse (e.g., leisure), while other types of activities (e.g., paid work) are unlikely to be done with a spouse (Sullivan 1996a). Patterns of change in paid work, housework, leisure, and childcare from the 1960s to the present are well established in the United States. The amount of time the average employed person spends working per day over the past fifty years has not changed dramatically, though the average amount of time a couple spends working total in a day has increased with the rise in married women's labor force participation (Goldin 2006). The rise of female employment led to a decline in male breadwinner households and an increase in the proportion of dual-earner couples. Despite dual-earner couples' time allocations to paid work, evidence suggests that spouses try to coordinate their work schedules (Hamermesh 2002), which may limit the extent to which dual earners experience greater barriers to shared time than single-earner couples. Housework, on the other hand, has decreased slightly

within households since 1965 (Aguiar and Hurst 2007; Bianchi et al. 2000). This change is due to opposing trends, as the time women spent in housework decreased over the period while men's contributions housework increased (Aguiar and Hurst 2007; Bianchi et al. 2000; Bianchi et al. 2012). With declines in women's housework and increases in men's housework, there may be greater opportunity to perform this type of activity together in more recent years. Americans' leisure time increased between 1965 and 2003 (Aguiar and Hurst 2007; Sevilla et al. 2012), suggesting that couples may have more time to spend together than they once did, and this is supported in limited research on couples' shared time in leisure (Sevilla et al. 2012; Voorpostel et al. 2009, 2010). Beyond time spent in leisure, there is little evidence about how couples' time spent in specific activities has changed over time.

The most researched and significant time allocation change over the past fifty years is in time parents spend with children and in childcare. Despite greater time in paid work for women and greater contributions to housework by men, parents' time spent in childcare has increased since 1965 (Aguiar and Hurst 2007; Bianchi 2011; Bianchi et al. 2012; Sayer et al. 2004). While women are still doing twice as much childcare as men (as of 2010), the gender gap has closed appreciably since 1965 (Bianchi et al. 2012). There is also evidence that fathers are more likely than mothers to perform childcare with their spouse (Craig 2006), which suggests an increase in shared time during childcare since fathers are doing more childcare now than in previous years. Perhaps this is because childcare is the activity during which mothers and fathers are happiest (Connelly and Kimmel 2015).

There is an informative, yet limited, set of research directly examining spouses' shared time. Most of this research has documented increases over time in the amount of time couples spend together in leisure activities (Sevilla et al. 2012; Voorpostel et al. 2009, 2010). Dew (2009) considers all activities, but only the time couples spend together with no one else present. He finds significant declines in couples' shared time for both parents and non-parents; however the difference is greater for

non-parents. Recent research on couples' shared time highlights the importance of considering both total time with a spouse and time spent alone with a spouse, and shows that patterns of couples' shared time vary by demographic characteristics (Flood and Genadek forthcoming). Trends in parents' time with children and previous research on differences in couples' time together by parenthood suggest that parents and non-parents may have very different patterns of time spent together (Dew 2009, Flood and Genadek forthcoming). Building on the limited research on trends in couples' shared time and recent evidence that our understanding of couples' shared time is enhanced by considering various measures of shared time, in this paper we examine three types of time spent with a spouse: total time spent together, time spent alone together, and, for parents, time spent together with children. We decompose the changes over time to examine the impact of demographic trends on shared time. Finally, we consider how that nature of couples' shared time – that is, what activities they do together – has changed.

### **Data and Measures**

We use harmonized US time diary data from the American Heritage Time Use Study (AHTUS 2012). The data derive from surveys taken in 1965, 1975, 2003, and 2012. Respondents recorded their activities over a 24-hour period, providing information on what they were doing and who they were with throughout that day. In addition to the time use data, each survey collected demographic information from the respondents. Though the time use data are consistently coded within the AHTUS database, they were compiled from different original sources and vary in size and population representativeness. The 1965 sample is from the Multinational Comparative Time-Budget Research project and represents individuals aged 19 to 65 who lived in households where at least one member worked in a non-agricultural industry. The 1975 data are from the American's Use of Time project, which was designed to represent the adult population aged 18 and older. The 1975 data are part of a larger panel study, but

we include diary data from the primary respondents collected over 1975 and 1976<sup>1</sup>. The 2003 and 2012 data are from the nationally representative American Time Use Survey, which is the first federally-funded, ongoing time use survey in the United States. Table 1 provides sample sizes and descriptive statistics for the data we use for our analysis.

[Table 1 about here]

In contrast to most analyses of time diary data, which examine time spent in various activities, we leverage the rich co-presence data available in these surveys. We examine time spent with a spouse, drawing on information from the time diary about with *whom* activities were done. Accordingly, we restrict our sample to married men and women ages 20-64 and consider only couples where at least one member is employed.<sup>2</sup>

Any cross-temporal analysis must consider the comparability of measures. In 1965, 2003, and 2012, respondents were *not* asked who they were with while doing most personal care activities. In 1965, 1975, and 2003, respondents were not asked who they were with while doing paid work. Unless we exclude personal care and paid work from our analyses, we cannot make accurate comparisons about time with a spouse and/or children; we therefore exclude these activities when creating our measures of time with a spouse. In 1965, 2003, and 2012, average total time spent with a spouse is about ten minutes lower after removing all activities related to paid work and personal care. However, in 1975, average time spent with a spouse is 35 minutes lower after removing paid work and personal care activities.<sup>3</sup>

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<sup>1</sup> This data include multiple observations for most respondents. We cluster the standard errors at the person level to account for this in our models.

<sup>2</sup> The data from 1965 only includes couples with at least one employed spouse, so for comparability reasons we restrict all samples to couples where one member is working. As a sensitivity analysis given the specific sampling strategy in 1965, we also control for broad occupational category in models containing 1965, 2003, and 2012 data (occupation is not available in 1975) and we see no meaningful differences in the estimates compared to parallel models excluding occupation.

<sup>3</sup> Previous research (see Dew 2009) did not account for variations in measurement across surveys, thus differences in couples' shared time for all activities with a spouse over time are overestimated.

Our three key dependent variables measure the time couples spend together and are created by aggregating time spent in activities for which co-presence information is consistently collected.<sup>4</sup> While previous studies have typically considered only time alone with a spouse or shared leisure time with a spouse, we provide a more complete analysis based on the three following measures of time spent with a spouse. *Total time* spent with a spouse captures all time the respondent spent with his/her spouse during the course of the diary day. We also consider two subcategories of total time with one's spouse: *Spousal time* measures time spent alone with a spouse when no one else was present. *Family time* indicates time spent with a spouse *and* one or more children (under 18 in the ATUS) for couples with children. *Spousal time* is 75% of total time with a spouse for non-parents and *spousal time* and *family time* account for 90% of total time with a spouse for parents on average.<sup>5</sup>

After analyzing couples' shared time, we also disaggregate that time into different activities to better understand if there are particular areas in which shared time has changed or whether we see similar patterns across different activities. We consider meals, television, leisure, childcare, and housework. These are five of the six most prominent shared activities with a spouse.<sup>6</sup> While travel also comprises a fairly substantial amount of shared time (~20-25 minutes per day across all years), there is little change in the time couples allocate to this type of activity so we do not consider it here. *Meals* include work and non-work-related eating; *television* includes time watching television; *leisure* includes playing sports/exercising, socializing with others, reading, playing games, and attending events such as sports, movies, and parties; *childcare* involves caring for children; and *housework* includes activities

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<sup>4</sup> For comparability reasons, we also create measures for with a spouse and with a child from the original data. In 1965 and 1975, we code a spouse as present if the respondent mentioned being with a "spouse, finace(e)" during one of his or her two possible "with" responses. In 2003 and 2012, respondents could report multiple people with whom they did an activity. We code respondents as being with his/her spouse if he/she listed a spouse as present. For time spent with a spouse and children, in 1965 and 1975 the respondent must have reported being with "children of household" in one of the two "with" measures and in the 2003 and 2012 data respondents had to report being with at least their spouse and an own co-resident biological, adopted, or step child under age 18. Because we cannot know precisely whether in 1965 and 1975 "children of household" included co-resident adult children, we are conservative in our 2003 and 2012 coding in that we restrict children only to those under 18; we may therefore underestimate any change between 1965 and 2012.

<sup>5</sup> A third subcategory, which we do not consider independently, is time with a spouse and other individuals who are not children.

<sup>6</sup> Year-specific means of time with a spouse in all activities are available upon request

such as meal preparation, cooking, cleaning, laundry as well as home repairs, and purchasing goods and services.

*Survey year* is our measure of behavioral change and indicates the year the data were collected: 1965, 1975, 2003, and 2012. Our measures of compositional change are as follows. *Education* distinguishes between high school or less education and some college or more education. *Couple-level employment* indicates whether the respondent is a member of a dual-earner couple, male breadwinner couple, or female breadwinner couple. *Age of youngest child* differentiates between no children in the home, youngest child age 0-4, and youngest child age 5-17. *Number of co-resident children* ranges from zero to ten. We also control for *race*, distinguishing between white and non-white respondents; *gender*; and 15-year *age groups* 20-34, 35-49, and 50-64. Finally, we control for dairies collected on weekends and weekdays and region of the country.

### **Analysis and Results**

Figures 1 and 2 show the average amount of time spent with a spouse between 1965 and 2012 during non-work and non-personal care activities for couples without and with children, respectively. Both parents and non-parents spent more than four hours together, on average, per day. The total time spent together for non-parents increased dramatically from 245 minutes in 1965 to 312 minutes in 1975 and has since declined to 271 minutes in 2012. The trend is similar for spousal time (time spent alone with a spouse), with a smaller, 21 minute decline, from 231 minutes in 1975 to 210 minutes in 2012. Trends in couples' shared time are quite different for couples with children. Total time spent with a spouse increased significantly from 1965 to 1975 (from 229 minutes to 257 minutes) but has remained fairly level since 1975. Family time (time spent with a spouse and children), however, increased dramatically over the entire period. Indeed increases between each year and the next year are statistically significant ( $p < .05$ ). In 1965, individuals with children spent about two hours per day with both their spouse and child(ren); by 2012 this had increased 50 minutes to almost three hours. For couples with

children, the increase in shared time between 1965 and 2012 was driven almost exclusively by more time spent together as a family as opposed to time spent alone with one's spouse, as evidenced by the largely constant levels of spent alone together.

[Figures 1 and 2 about here]

To further investigate these descriptive trends in time shared with a spouse for parents and non-parents, we estimate OLS regression models. We pool the four years of AHTUS data (1965, 1975, 2003, 2012) and include indicators for year of survey.<sup>7</sup> This allows us to control for variation in household, demographic, and diary day characteristics while estimating the differences in time spent together across decades. The regression estimates for time spent with a spouse for couples with and without children are presented in Table 2. The first two columns show the results for *total time* and *spousal time* for couples without children. Controlling for household, demographic, and diary day characteristics, we find sharp increases among non-parents in total time with a spouse and time spent alone with a spouse between 1965 and 1975 and a decrease in both of those measures since 1975. Couples spent 63 minutes more together in 1975 than in 1965 and 40 minutes more together in 2012 compared to 1965. Results are similar for time alone with a spouse, with couples spending 64 and 53 more minutes alone together in 1975 and 2012, respectively, compared to 1965.

Estimates of *total time*, *spousal time*, and *family time* for parents are in the last three columns of Table 2. Like couples without children, there was a 32 minute increase in total time spent together for couples with children between 1965 and 1975. Since 1975, the total time with a spouse for parents has remained mostly level. The amount of time parents spend alone together has also been largely constant since 1965. By contrast, the trend in time spent with spouse and children is linear: there has been a steady and substantial increase since 1965, net of other changes in characteristics. Parents in 2012 spent about an hour more together with children than did parents in 1965.

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<sup>7</sup> We use OLS rather than Tobit models to perform these analyses because few respondents report spending no time with their spouse in the time diaries, and recent research suggests that OLS models produce less biased estimates than Tobit models for time use analyses (Stewart 2013).

[Table 2 about here]

There is significant demographic variation in time spent with a spouse. For both parents and non-parents, individuals in male breadwinner and female breadwinner couples spend more time together (for each measure of shared time) than those in dual-earner couples. We find that white respondents without children spend 53 minutes more together in total per day than non-white respondents and about 33 minutes more alone together. For parents, however, the only small race difference we find is for total time with white respondents spending 17 more minutes with their spouse per day than non-white respondents. Parents with some college education spend 14 more minutes together in total than less educated parents. And, parents with a child under age five spend 10 more minutes together in total and 25 more minutes in family time but spend 17 fewer minutes alone together than parents of children 5-17. Each child in the household was associated with six minutes fewer in total and spousal time and three minutes more in family time.

Given major shifts in the composition of the population over the past 50 years, it is possible that the trend of increasing shared time with a spouse in the OLS models is resulting from compositional shifts in the US population. Alternatively, behavioral changes within marriages may be contributing to observed differences. Following previous studies that analyze trends in time use (Aguar and Hurst 2007; Dew 2009; Sayer et al. 2004), we decompose the differences between 2012 and 1965 for each measure of time spent with a spouse to estimate how much of the difference can be attributed to changes in population demographics versus changes in the behavior of couples. We use the Oaxaca-Blinder (1973) method to decompose the difference in total time spent together across years into two parts: the first part is the change due to differences in the composition of the sample in each year, and the second part is the change due to different behaviors. The first part can be considered as “explained” by the model, while the second is considered to be the part “not explained” by the explanatory variables. More formally, the decomposition is estimated as follows:

$$\bar{Y}_{2012} - \bar{Y}_{1965} = \beta_{2012} * (X_{2012} - X_{1965}) + (\beta_{2012} - \beta_{1965}) * X_{1965}$$

$\bar{Y}_{2012}$  and  $\bar{Y}_{1965}$  are the means of total time for the 2012 and 1965 samples. OLS regressions estimating Y in each year produce the coefficients ( $\beta_{2012}$  and  $\beta_{1965}$ ) from the vector of year specific characteristics ( $X_{2012}$  and  $X_{1965}$ ).<sup>8</sup> The term  $\beta_{2012} * (X_{2012} - X_{1965})$  is the part explained by differences in the composition of the population in the year, while the term  $(\beta_{2012} - \beta_{1965}) * X_{1965}$  is the part not explained by the variation in composition of the groups; it is that part attributed to a different behavior. The reverse decomposition uses the sample from 1965 as a reference, and the results can be interpreted in the same way.

Table 3 shows the results from the Oaxaca-Binder decomposition analysis of childless couples' total and spousal time and of parents' total time and family time for couples.<sup>9</sup> Panel A shows the decomposition estimates using the 2012 coefficients with the characteristics from 1965, and Panel B shows results using the 1965 coefficients with the 2012 characteristics. The top row in each panel shows the average increase in minutes spent with a spouse between 1965 and 2012 for the indicated type of time spent together for non-parents (Columns 1 and 2) and parents (Columns 3 and 4).

For each type of time (total, spousal [non-parents only], and family [parents only]) and both versions of the decomposition (Panels A and B), compositional change – that is, changing demographics – yield *larger* differences over time (negative “explained” results) for couples' shared time.<sup>10</sup> If individuals in childless couples in 2012 looked like individuals in 1965 in terms of measured characteristics (Panel A), they would spend 35 more minutes together in total, yet the change in characteristics decreases this by 10 minutes yielding an increase in total time together of 25 minutes. Similarly for spousal time, the behavioral change between 1965 and 2012 is estimated to have increased

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<sup>8</sup> The variables included as characteristics are the same as in the previous pooled OLS models.

<sup>9</sup> There is no difference in spousal time for parents (the difference is 0.6 minutes and is not statistically significant), so this difference is not decomposed.

<sup>10</sup> Because the results are similar, we show the characteristics from 2012 and the 1965 coefficients (results in Panel B) but do not discuss.

time together by 59 minutes; the actual change is an increase of 46 minutes after accounting for changing population characteristics. Results for parents' total time together are nearly identical to non-parents', and the largest estimated behavioral change is in family time. Therefore, changes in observed demographic characteristics are *not* contributing to the increases in time spent together between 1965 and 2012. Rather, changes in the behavior of married couples are driving increases in time shared with a spouse over the past 50 years.

[Table 3 about here]

To further understand the increase in the time couples spend together and changing marital relationships, we examine *how* couples spend their time. Table 4 shows separately for non-parents and parents, on average, the predicted total minutes in five specific activities and the predicted minutes spent with a spouse in the same five specific activities in 1965, 1975, 2003, and 2012. The activities include meals, television, leisure, housework, and childcare as a primary activity (for parents only). Predicted average minutes per day are based on activity-specific regression models with all of the controls used in Table 2. For each activity-year combination, we also compute the share of the time spent with a spouse in each activity ( $\text{share} = \text{total time with spouse in activity} / \text{total time in activity}$ ). This allows us to determine whether changes in time with a spouse during specific activities parallel changes in time spent in the activities more broadly, which would be indicated by consistent shares across time.

Eating is the only joint activity in which time spent together decreased over the period for both parents and non-parents. The decreases in time spent eating with a spouse are large in magnitude considering that the average time spent eating together in 1965 is 50 minutes for non-parents (46 for parents) and the average time in 2012 is 33 minutes (31 for parents). Decreases in shared time eating with a spouse, however, parallel more general declines in time spent eating as evidenced by the largely unchanged share of time eating meals with a spouse.

Decreases in time spent with a spouse in meals are more than offset by increases in total shared time spent in leisure and television watching. For both non-parents and parents, leisure time and television watching with a spouse has increased between 1965 and 2012 as has the total amount of time in leisure and television watching. Looking at shares, though, we see different stories. The share of leisure time that couples spend together has increased from 39% in 1965 to 45% in 2012; however, despite watching more television, couples do a smaller share of it with a spouse in 2012 (60%) than in 1965 (71%). Shares of time watching television with a spouse are largely similar for parents, though parents have less leisure time than non-parents and watch less television.

[Table 4 about here]

Housework is one activity in which Americans are spending less time overall in 2012 compared to 1965. For non-parents, time spent in housework with a spouse has increased slightly since 1965. Because total time in housework has declined and time in housework with a spouse has increased, we see a rise in the share of time spent in housework that is done with a spouse from 22% in 1965 to 32% in 1975 and later. For parents, the rise is similarly timed with the share of time with a spouse in housework increasing from 19% in 1965 to 26% in 1975 and 2003 and 27% in 2012.

Most striking for parents, however, is the tremendous change in primary care. Total time in this activity has doubled from 41 minutes in 1965 to 88 minutes in 2012. Time with a spouse has quadrupled from 6 minutes to 27 minutes. Finally, the share of time parents spend together in primary care between 1965 and 2012 has nearly doubled. Whether we look at absolute minutes providing childcare together or the share of childcare performed with a spouse, we see that parents are doing more of it together today than ever before.

## **Discussion**

The past half century has been a period of rapid transformation in American families. Marriages have changed as indicated by trends such as the rise in divorce and non-marital cohabitation, delayed

marriage, and the rise in couples without children. Some scholars argue that marriage is becoming more individualistic (Cherlin 2004) and point to the aforementioned trends as well as declines in couples' shared time as evidence (Amato et al 2007). Others argue that changes in marriage have led to greater complementarity between couples (Lam 1988; Lundberg and Pollak 2007; Stevenson and Wolfers 2007), which should suggest more time with a spouse. The extant literature is extremely limited, and this paper begins to fill an important gap by providing insight into how couples' shared time has changed between 1965 and 2012.

We find that over the past 50 years the average amount of time individuals spend with a spouse per day has increased. Between 1965 and 2012, the minutes per day that couples spend together have increased for both parents and non-parents, on average, as has spousal time for non-parents and family time for parents. Our decomposition of couples' shared time with a spouse in 1965 and 2012 indicates that this increase in shared time is not explained by changing demographics such as the increase in women's labor force participation, having fewer children, and increasing educational attainment. If changing demographics were the only changes between 1965 and 2012, couples would indeed be spending less time together in 2012 than in 1965. However, the decomposition analysis indicates that changes in behavior are the primary drivers of the differences observed. Leisure and television watching as well as (for parents) primary care are the activities in which we see the greatest increases in time spent with a spouse, and these increases more than offset decreases in shared meals.

Our work also contributes to a scarce literature on time spent alone with a spouse and with a spouse more generally. Dew (2009) found a decrease in both non-parents' and parents' time spent alone together between 1975 and 2003. Similar to Dew (2009), we find that non-parents have lost time alone together since 1975 (11 minutes between 1975 and 2012); however, by extending the analysis back to 1965 we find an increase over the period of 53 minutes. Moreover, we find that parents have *not* gained

or lost time alone together between 1965 and 2012.<sup>11</sup> And, we find strong evidence for parents of *increasing* total time with a spouse and family time during this same period, on the order of one hour per day. In the context of overall increases in shared time, parents do indeed spend less of their shared time alone with one another, but they have not lost time together since 1965.

Our research also allows us to speak to the limited research on couples' shared time in leisure (Sevilla et al. 2012; Voorpostel et al. 2009, 2010) as well as in other activities. A focus on leisure to the exclusion of other activities creates gaps in our understanding about how couples' shared time has changed or remained the same. Our work begins to fill this gap and shows the importance of considering multiple activities during which individuals share time with a spouse. For example, parents' shared time in leisure and television has increased slightly since 1965, but we observe different – and interesting – patterns for meals, housework, and childcare. Though couples are doing less housework overall, they are doing a greater share together over time. And primary care, for parents, has changed dramatically and is increasingly a key time shared with a spouse.

Unfortunately, with time diary data we are unable to explain *why* these behavioral shifts have occurred. Despite theory suggesting that marriages have become more individualistic (Cherlin 2004, 2006) and trends that imply greater time scarcity for couples, the actual increases in couples' shared time that we observe require other explanations. Perhaps increases in shared time overall are driven by more assortative mating and “consumption complementarity” (Lam 1988; Lundberg 2012; Stevenson and Wolfers 2007); that is, couples have selected into marriages based on shared interests and spend more time doing things together that they both enjoy. This explanation would be consistent with evidence that couples want to spend more time with their spouses (Bianchi et al. 2006; Nomaguchi et al. 2005; Roxburgh 2006). Despite spending more time together, shared time may be colored by always

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<sup>11</sup> We find no statistically significant differences in parents' time alone with a spouse between 1965 and 2012 net of controls. The reason our findings are inconsistent with Dew's (2009) work is that we account for differences across surveys in the measurement of the co-presence of others; specifically, *who* respondents are with is not consistently asked during personal care and paid work activities so time with a spouse in these activities must be excluded from our analysis to make accurate comparisons.

feeling rushed (Mattingly and Sayer 2006), thereby creating that “never enough” feeling for coupled individuals (Bianchi et al. 2006; Roxburgh 2006). The increasing trend in parents’ shared time seems largely driven by family time, that is, time with a spouse and a child. Perhaps couples are more consciously carving out family time than they did previously because they are more actively choosing if and when to form families rather than involuntarily having children or because of heightened expectations about how much time parents should spend with children (Hays 1998; Thornton and DeMarco 2001).

Individuals, on average, have been quite successful in carving out time for a spouse over the past fifty years. At the very least, they have not lost time alone together and they are spending more time with one another today than in 1965. Our work lends support to claims that there is still considerable interdependency in marriage (Yodanis and Lauer 2014) and that consumption complementarities may offset other demands on couples that would otherwise limit their shared time (Mansour and McKinnish 2014). Whether marriage is more or less individualized than it was 50 years ago, it is evident that couples are spending *more* time together and that these changes are less the result of changing demographic characteristics and rooted more in behavioral changes.

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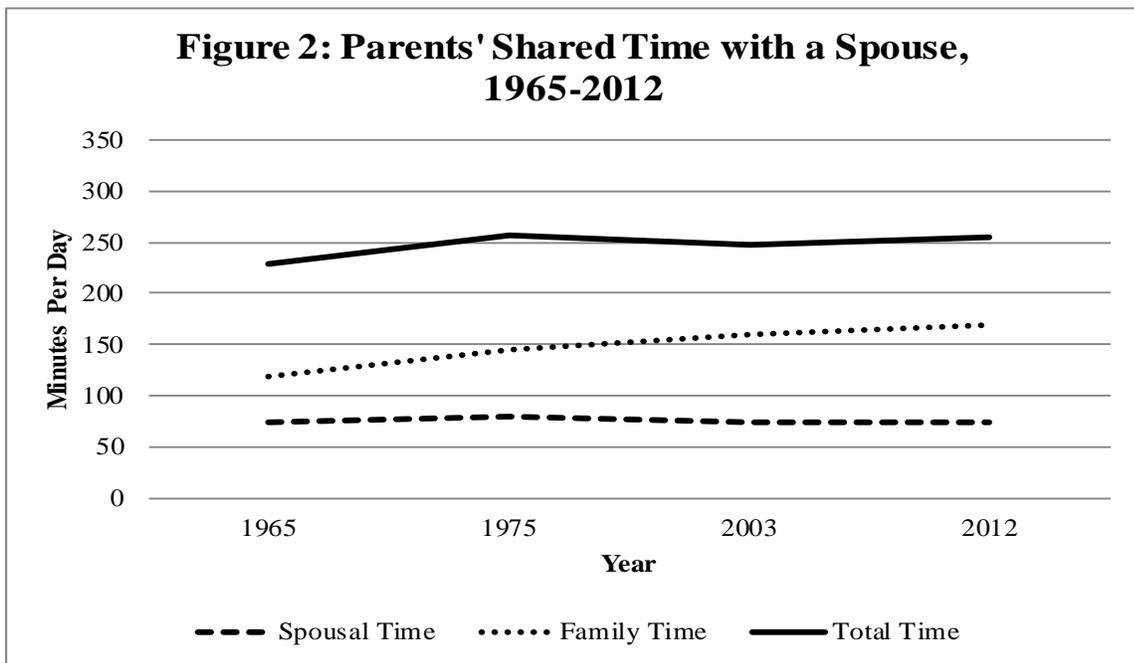
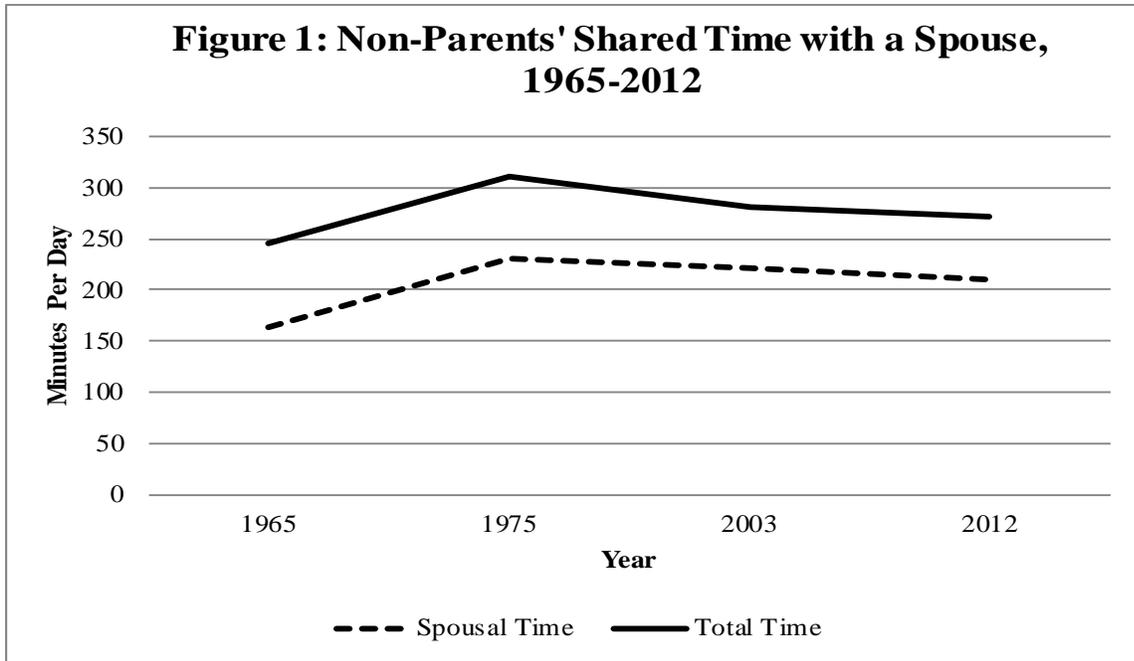


Table 1. Descriptive statistics and sample sizes

	Years			
	1965	1975	2003	2012
Age				
20-34	37.53	45.43	24.95	22.64
35-49	38.91	33.86	48.29	48.93
50+	23.56	20.71	26.77	28.43
Couple-Level Employment				
Dual-earner	32.94	50.66	63.69	62.40
Single-earner, male works	64.37	44.83	28.28	28.58
Single-earner, female works	2.69	4.51	8.03	9.02
Non-Parents	30.18	33.64	33.92	29.46
Parents				
Children under age 5	33.40	25.03	28.57	29.57
Children ages 6-18	36.42	41.33	37.51	40.97
Number children under age 18	1.72	1.49	1.29	1.39
Race				
White	88.98	93.22	89.16	85.21
Non-white	11.02	6.78	10.84	14.79
Education				
High school or less	72.90	65.04	34.83	25.23
Some college	27.10	34.96	65.17	71.77
Sex				
Male	46.72	48.52	46.79	47.32
Female	53.28	51.48	53.21	52.68
Diary Day				
Weekday	72.70	50.80	49.35	49.34
Weekend	27.30	49.20	50.65	50.66
Observations	1524	2197	8779	4457

Note: The sample includes all married respondents between the ages of 20-64 where at least one member of the couple is employed.

Table 2. OLS Regression Estimates of Non-Parents' and Parents' Shared Time with a Spouse

	Non-Parents		Parents		
	Total Time	Spousal Time	Total Time	Spousal Time	Family Time
Year (ref=1965)					
1975	62.842*** (11.15)	64.061*** (10.18)	32.201*** (7.39)	5.041 (4.44)	30.341*** (6.02)
2003	46.201*** (8.98)	61.519*** (7.91)	28.011*** (6.21)	1.391 (3.41)	49.600*** (5.23)
2012	40.174*** (10.09)	53.167*** (8.89)	36.310*** (6.89)	-0.952 (3.73)	61.375*** (5.89)
Education (ref=some college)					
High school or less	13.883* (6.29)	8.79 (5.82)	0.943 (4.18)	-4.131+ (2.32)	2.284 (3.59)
Employment status (ref=dual earner couple)					
Male breadwinner couple	46.713*** (7.37)	34.963*** (6.68)	34.546*** (4.17)	10.263*** (2.35)	21.652*** (3.52)
Female breadwinner couple	40.213*** (10.08)	38.623*** (9.07)	53.095*** (10.07)	17.362** (5.72)	34.770*** (8.94)
Age youngest child (ref 5-17)					
0-4			9.457* -4.401	-16.833*** -2.448	24.053*** -3.757
Number of children			-6.133** -1.895	-5.770*** -1.095	3.237* -1.58
Race (ref=non-white)					
White	53.450*** (9.27)	33.200*** (8.29)	17.179** (6.46)	5.248 (3.38)	7.171 (5.45)
Age (ref=20-34)					
35-49	-19.745* (9.07)	-5.671 (8.32)	-10.969* (4.73)	-2.97 (2.63)	-12.011** (4.03)
50-64	-16.309* (7.71)	-5.865 (7.05)	-32.378*** (7.24)	6.323 (4.67)	-55.903*** (5.77)
Sex (ref=male)					
Female	-5.06 (5.83)	-11.402* (5.35)	-12.079** (3.79)	-3.724+ (2.16)	-10.482*** (3.18)
Day of week (ref=weekday)					
Weekend	204.321*** (6.21)	122.794*** (5.62)	214.685*** (4.08)	30.931*** (2.23)	160.485*** (3.65)
Constant	126.993*** (14.35)	91.849*** (12.91)	151.822*** (11.58)	80.985*** (6.40)	46.125*** (9.62)
Observations	5,489	5,489	11,465	11,465	11,465
R-squared	0.184	0.097	0.216	0.03	0.186

Notes: The sample includes all married respondents between the ages of 20-64 where at least one member of the couple is employed. The regressions also include geographic region of the country. The standard errors are reported in the parenthesis and allow for non-independent regression errors within persons for 1975.

+p<.10; \*p<.05; \*\*p<.01; \*\*\*p<.001

Table 3. Decomposition of total shared time with a spouse between 1965 and 2012

	<b>Non-Parents</b>		<b>Parents</b>	
	<b>Total Time</b>	<b>Spousal Time</b>	<b>Total Time</b>	<b>Family Time</b>
<b>Panel A: 1965 Characteristics with 2012 Coefficients</b>				
Total change (minutes)	25.8	45.9	25.6	49.7
Compositional Change (change due to different characteristics)	-9.6	-13.0	-8.3	-16.0
Behavioral Change (change due to different coefficients)	35.4	58.9	33.9	65.7
<b>Panel B: 2012 Characteristics with 1965 Coefficients</b>				
Total change (minutes)	25.8	45.9	25.6	49.7
Compositional Change (change due to different characteristics)	-27.3	-22.8	-22.3	-10.5
Behavioral Change (change due to different coefficients)	53.1	68.7	47.9	60.2
Observations	1772	1772	4208	4208

Notes: The sample includes all married respondents between the ages of 20-64 where at least one member of the couple is employed. Oaxaca-Binder decomposition is performed with OLS regression estimating total time together with the following variables: education, couple-level employment status, age of youngest child, number of children, race, age, sex, weekend day, and region.

Table 4. Predicted minutes and share of time spent with a spouse by

<b>Panel A: Non-Parents</b>				
	1965	1975	2003	2012
<b>Meals</b>				
Total Minutes in Activity	84	93	55	59
Total Minutes with Spouse	50	59	32	33
<i>Share</i>	60%	63%	58%	57%
<b>Leisure</b>				
Total Minutes in Activity	155	160	173	164
Total Minutes with Spouse	61	76	78	74
<i>Share</i>	39%	47%	45%	45%
<b>Television Watching</b>				
Total Minutes in Activity	82	118	147	154
Total Minutes with Spouse	58	79	90	92
<i>Share</i>	71%	67%	62%	60%
<b>Housework</b>				
Total Minutes in Activity	151	141	125	117
Total Minutes with Spouse	32	45	40	38
<i>Share</i>	22%	32%	32%	32%
<b>Panel B: Parents</b>				
	1965	1975	2003	2012
<b>Meals</b>				
Total Minutes in Activity	82	87	54	57
Total Minutes with Spouse	46	50	30	31
<i>Share</i>	56%	58%	56%	55%
<b>Leisure</b>				
Total Minutes in Activity	142	150	138	131
Total Minutes with Spouse	54	62	65	62
<i>Share</i>	38%	41%	47%	47%
<b>Television Watching</b>				
Total Minutes in Activity	80	97	112	117
Total Minutes with Spouse	56	57	62	69
<i>Share</i>	69%	59%	56%	59%
<b>Housework</b>				
Total Minutes in Activity	175	149	141	127
Total Minutes with Spouse	34	39	36	34
<i>Share</i>	19%	26%	26%	27%
<b>Primary Care</b>				
Total Minutes in Activity	41	42	81	88
Total Minutes with Spouse	6	10	21	27
<i>Share</i>	16%	24%	26%	31%

Notes: The sample includes all married respondents between the ages of 20-64 where at least one member of the couple is employed. Predicted minutes of total time spent in each activity and total time spent with a spouse in each activity obtained using OLS regression. The following variables are included in estimation: year, education, couple-level employment status, age of youngest child, number of children, race, age, sex, weekend day, and region.