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

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**Abstract** Despite major demographic changes over the past 50 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—in the United States. Using time diary 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 spent more total time together and time alone together in 2012 than they did in 1965, with total time and time alone together both peaking in 1975. For parents, time spent together increased between 1965 and 2012, 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 · Time use · Parenthood

## Introduction

Couples' shared time is a strong predictor of marital well-being (Daly 2001; Gager and Sanchez 2003; Milkie and Peltola 1999). Evidence has shown that couples actively work to coordinate work schedules and leisure time (Hallberg 2003; Hamermesh 2002); time with a spouse is more enjoyable (Sullivan 1996) and yields greater happiness and meaning (Flood and Genadek 2016) than time spent apart; and many people report that they would like to spend more time with their spouses (Bianchi 2009; Bianchi et al. 2006; Nomaguchi et al. 2005; Roxburgh 2006). Despite strong evidence that time spent with a spouse is important, enjoyable, and

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desirable, we know very little about how time with a spouse has changed—or not—over the last half-century in the United States.

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 twentieth century. The norms and values surrounding parenthood have shifted toward more intensive parenting, with greater time investments in children over time (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 study, we document trends in couples' shared time, empirically disentangle the compositional and behavioral factors underlying these trends, and analyze what couples do together in recent years versus in previous decades.

Several studies have investigated changes in time allocation of married individuals over the past 50 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: (1) time alone with a spouse, (2) time with a spouse and children, and (3) total time with a spouse. Second, we use American Heritage Time Use Study (AHTUS) 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 spent more time together overall in 2012 than they did in 1965, despite previous research (see Amato et al. 2007; Dew 2009) and population trends that might have suggested otherwise. Individuals also spend more time alone with a spouse than in 1965, and there have been large increases in the time 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 with a spouse has actually declined. For parents, shared time spent in childcare has increased significantly and steadily over time.

## Background

The last 50 years have been a time of seismic changes for American marriages and families. The divorce rate increased dramatically (Kennedy and Ruggles 2014), and nonmarital cohabitation became widespread (Bumpass and Sweet 1989; Smock 2000). Individuals now marry later and are more likely to cohabit prior to marriage than 50 years ago (Manning et al. 2014). Similarly, the mid-century negative relationship between marriage and education has reversed: in 2010, the most highly educated individuals were

the most likely to marry (Ruggles 2015), which is at least partially the result of the precarious employment of less-educated men (Cherlin 2009).

The demographic changes over the last half-century underscore the changes in the social context surrounding work and marriage during this period. Between 1940 and 1960, marriages were largely characterized by a model of economic specialization in which husbands worked for pay outside the home and women were homemakers (Becker 1981; Ruggles 2015). Yet, the prevalent and idealized postwar breadwinner-homemaker model of the mid-twentieth century was short-lived (Coontz 2005; Oppenheimer 1997). Men's declining wages along with demand for women's labor, the inability of men's wages to solely support a family, and women's dissatisfaction with the male-breadwinner family model resulted in the dramatic rise of dual-earner families in the second half of the twentieth century (Ruggles 2015).

In addition to structural changes in families related to economic circumstances, the nature of marriage was also changing. Women's economic independence (Oppenheimer 1997) meant that women no longer had to rely on husbands for economic security but rather could select partners based on social and emotional factors, such as shared interests and love (Cherlin 2004; Coontz 2005). The trend toward individualism in marriage during the last few decades has led to greater emphasis on individual satisfaction in marriages rather than role-based satisfaction (i.e., as a spouse, parent) (Cherlin 2004).

Another change in marriage associated with declines in the gender division of labor is increased assortative mating in marriage (Lam 1988; Lundberg and Pollak 2007). Evidence has shown that educational homogamy in marriages increased in prominence starting in the early 1970s (Schwartz and Mare 2005). Assortative mating in marriages implies greater similarities between members of a couple, which may result in increased joint consumption and more shared time (Mansour and McKinnish 2014; Stevenson and Wolfers 2007).

Theories about changes in marriage do not specify the implications for couples' shared time—a behavior that may provide insight into changes in couples' experiences of marriage. On the one hand, increasing individualization and assortative mating suggest that individuals marry people who are more like them and with whom they share more interests, potentially resulting in more time together. On the other hand, increasing individualization could lead to couples being more likely to spend their time doing what they want even if that means not spending time with their partner or other family members.

Despite the theories about how and why marriage has changed, other researchers have posited that concerns about the individualization of marriage are overstated. A recent review of evidence regarding patterns of marital behavior suggests that couples are still quite interdependent units (Lauer and Yodanis 2011; Yodanis and Lauer 2014). Despite definite changes in marriage in the direction of individualization, the percentage of couples who share bank accounts, residences, and time remains high (Lauer and Yodanis 2011). The individualization of marriage argument is also undermined by research showing that individuals want to spend more time with their spouses (i.e., Bianchi 2009; Bianchi et al. 2006; Nomaguchi et al. 2005; Roxburgh 2006).

Whom individuals spend time with has also been influenced by changes over the past five decades in the ways that individuals spend their time. 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

1996). We briefly review some of the well-established patterns of change in paid work, housework, leisure, and childcare from the 1960s to the present in the United States and the implications for time with a spouse. The amount of time that the average employed person spends working per day has not changed dramatically over the past 50 years, although the average amount of time that a couple spends working total in a day has increased with the rise in married women's labor force participation and dual-earner couples (Jacobs and Gerson 2001; Goldin 2006). Despite couples allocating more total time to paid work, evidence has suggested that working 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 (Bianchi 2009; Flood and Genadek 2016). Housework, on the other hand, has decreased slightly within households since 1965 (Aguiar and Hurst 2007; Bianchi et al. 2000). The decrease in total household time spent in housework was largely driven by significant declines in the time that married women spent in housework over the period. Men's contributions to housework have actually increased over the period, offsetting the decline of married women (Aguiar and Hurst 2007; Bianchi et al. 2000, 2012), although women still spend more time in housework than men (Bianchi et al. 2012). With men's increased participation in housework, it is unclear whether housework is an activity in which couples will spend more or less time together over the period. On the one hand, if men are doing more housework, couples could be spending more time together in housework. Conversely, because the extant evidence suggests that married men's time spent in housework is substituting for married women's time in the labor force (Bianchi et al. 2000), couples' housework time may be no more overlapping today than it had been previously. 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 supposition is supported in limited research on couples' shared time in leisure (Sevilla et al. 2012; Voorpostel et al. 2009, 2010). However, the average increases in leisure time and minimal change in work hours over this period may mask the disparate nature of both work and leisure, with varying change by demographic groups and by socioeconomic status (Jacobs and Gerson 2004; Sevilla et al. 2012).

The most researched and significant change in time allocation over the past 50 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). Although 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). Evidence also indicates that fathers are more likely than mothers to perform childcare with their spouse (Craig 2006); this finding suggests an increase in shared time during childcare given that fathers are doing more childcare now than in previous years, perhaps because childcare is the activity during which mothers and fathers are happiest (Connelly and Kimmel 2015).

An informative, yet limited, set of research has directly examined time shared with a spouse. Most of this research has considered couples' shared time in leisure activities (Sevilla et al. 2012; Voorpostel et al. 2009, 2010). Voorpostel et al. (2009, 2010) showed that free time shared with a partner increased between 1965 and 2003, and the proportion of individuals' total free time spent with a spouse increased over the

period. Sevilla et al. (2012) investigated gender and education differences in the percentage of leisure time shared with a spouse between 1965 and 2003. Although women's percentage of leisure time with a spouse increased over the period and low-educated men's percentage of leisure with a spouse decreased, the absolute time spent with a spouse in leisure for all couples increased marginally between 1965 and 2003. Dew (2009) analyzed the time couples spend alone together during all activities and found significant declines in couples' shared time for both parents and nonparents between 1975 and 2003. The declines in time alone with a spouse, however, are greater for nonparents than for parents.

We build on this previous research to get a more holistic picture of changes in couples' shared time by analyzing couples' time spent together in all activities, and we are able to look at an additional decade by including time diary data from 2012. In addition, we use various measures of shared time based on the co-presence of others. 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 2016). Trends in parents' time with children and previous research on differences in couples' time together by parenthood suggest that parents and nonparents may have very different patterns of time spent together (Dew 2009; Flood and Genadek 2016). In this article, we examine three types of time spent with a spouse: (1) total time spent together; (2) time spent alone together; and for parents, (3) time spent together with children. We decompose the changes between 1965 and 2012 to examine the impact of demographic trends on shared time. Finally, we consider how the nature of couples' shared time—that is, what activities they do together—has changed.

## Data and Measures

We use harmonized U.S. time diary data from the American Heritage Time Use Study (AHTUS) (Fisher et al. 2012). The data originate from surveys taken in 1965, 1975, 2003, and 2012.[1] Respondents recorded their activities over a 24-hour period, providing information on what they were doing and whom they were with throughout a randomly selected day.[2] In addition to the time-use data, each survey collected demographic information from the respondents. The time diary and demographic data are consistently coded in the AHTUS database to standardize coding differences across the surveys.

The surveys are 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 was employed in a nonagricultural

[1] Time diary surveys are available in the years 1985, 1993, 1995, and 1998. However, the data from 1985, 1993, and 1995 do not include information whether a spouse is present during daily activities. The data from 1998 include some information on co-presence of others but were excluded because they do not include comparable information on co-presence of a spouse.

[2] The survey collectors randomly selected the diary days across all samples. In 1965 and 1975, all days of the week were given an equal probability of selection for diary days. The ATUS data (2003, 2012) are sampled from all days of the week, with an over-sample of weekend days. This is accounted for in the analyses with survey weights.

industry ($N = 2,021$). The 1975 data are from the Americans' 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 in 1975 and 1976 ($N = 4,584$).[3] The 2003 and 2012 data are from the nationally representative American Time Use Survey (ATUS), which is the first federally funded, ongoing time-use survey in the United States ($N = 20,720$ and $N = 12,443$, respectively).

We examine time spent with a spouse, leveraging the rich co-presence data available in these surveys, and thus restrict our analytic sample to heterosexual married men and women. Furthermore, for comparability across the samples, we further restrict our analytic sample to individuals aged 20–64 and consider only couples where at least one member is employed.[4] Our final sample includes the following number of time diary observations in each year: 1,524 in 1965; 2,197 in 1975; 8,779 in 2003; and 4,457 in 2012. Table 1 provides sample sizes and descriptive statistics for the data used for our analysis.

Any cross-temporal analysis must consider the comparability of measures, and we are drawing on information from the time diary about with whom activities were done. In 1965, 2003, and 2012, respondents were not asked whom they were with while doing most personal care activities, including grooming, personal care, health-related self-care, and sleeping. In 1965, 1975, and 2003, respondents were not asked whom 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 was about 10 minutes lower after we remove all activities related to paid work and personal care. However, in 1975, average time spent with a spouse was 35 minutes lower after we remove paid work and personal care activities.[5]

Our three key dependent variables measure the time that couples spend together and are created by aggregating time spent in all activities for which co-presence information is consistently collected.[6] Although previous studies have typically considered only

[3] These data include multiple observations for most respondents. We cluster the standard errors at the person level to account for this in our models.

[4] The data from 1965 include only those couples with at least one employed spouse, so for comparability reasons, we restrict all samples to couples where at least 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 with parallel models excluding occupation.

[5] Previous research (see Dew 2009) did not account for variations in measurement across surveys; thus, differences in couples' shared time reported previously for all activities with a spouse over time were overestimated.

[6] For comparability, we also create measures for shared time with a spouse and with a child from the original data. For 1965 (Converse and Robinson 1980) and 1975 (Juster et al. 2001), we code a spouse as present if the respondent mentioned being with a "spouse, fiancé(e)" during one of his or her two possible "with" responses. In 2003 and 2012 (Hofferth et al. 2013), 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; in the 2003 and 2012 data, respondents had to report being with at least their spouse and an own coresident biological, adopted, or step child under age 18. Because we cannot know precisely whether in 1965 and 1975 "children of household" included coresident 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.

**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 |
| Nonparents | 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 of children under age 18 | 1.72 | 1.49 | 1.29 | 1.39 |
| Race | | | | |
| White | 88.98 | 93.22 | 89.16 | 85.21 |
| Nonwhite | 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 |
| Number of Observations | 1,524 | 2,197 | 8,779 | 4,457 |

*Note:* The sample includes all married respondents aged 20–64 where at least one member of the couple is employed.

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: (1) *spousal time* measures time spent alone with a spouse when no one else was present, and (2) *family time* indicates time spent with a spouse *and* one or more children (under 18 in the ATUS) for couples with children. On average, *spousal time* is 75 % of total time with a spouse for nonparents, and *spousal time* and *family time* account for 90 % of total time with a spouse for parents.[7]

[7] A third subcategory, which we do not consider independently, is time with a spouse and other individuals who are not children.

After analyzing couples' shared time, we also disaggregate that time into different activities to better understand whether there are particular areas in which shared time has changed or whether we see similar patterns across different activities. Couples' shared time can be broadly classified into nine major activity categories; of those nine, we analyze time spent in meals, television, leisure, childcare, and housework, which are five of the most prominent activities with a spouse, and which account for 78 % of total time spent together, on average.[8] *Meals* include work-related 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 such as meal preparation, cooking, cleaning, laundry, 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 selected based on availability across samples and include individual characteristics that have changed in the aggregate over the 50-year time span. The large increase in women's labor force participation is captured in our *couple-level employment* measures. *Couple-level employment* indicates whether the respondent is a member of a dual-earner couple, male breadwinner couple, or female breadwinner couple. Dual-earner couples include couples where both the husband and wife are employed and work any amount; in the breadwinner couples, one member of the couple is unemployed or out of the labor force, and the other member is employed. *Education* distinguishes between high school or less education and some college or more education because education has been found to impact couple's shared time (Sevilla et al. 2012) and because the number of people, especially women, attending college increased over the period (DiPrete and Buchmann 2006). We include variables on children in the home to account for both the second demographic transition (Lesthaeghe 1995) and the large impact that children have on couples' time use in general (Bianchi et al. 2012; Kimmel and Connelly 2007). *Age of youngest child* differentiates among no children in the home, youngest child age 0–4, and youngest child age 5–17. *Number of coresident children* ranges from 0 to 10. We also control for *race* (white and nonwhite respondents) and 15-year *age groups* (20–34, 35–49, and 50–64) to account for changes in married population demographics over the period, including the delay in age at first marriage (Ruggles 2015).

We control for some characteristics because they are known to have large impacts on daily time allocation. Gender of the respondent is included because men often report slightly more time together than women (Flood and Genadek 2016). We also control for whether dairies were collected on weekends and weekdays because of the major differences in time allocation between weekend days and weekdays, driven largely by standard work and school weeks. Finally, region of the country is included to account for spatial variation in time allocation (Gimenez-Nadal and Molina 2014; Hamermesh et al. 2008).

[8] Travel accounts for approximately 9 % of couples' shared time across years (or 20–25 minutes per day on average); yet, there is little change in the time couples allocate to this type of activity, so we do not consider it here. All other activities combined make up approximately 4 % of measured daily time with a spouse and include the following primary activities: volunteering and religious activities, education-related activities, and adult caregiving. Year-specific means of time with a spouse in all activities are available upon request.

## Analysis and Results

Figures 1 and 2 show the average amount of time spent with a spouse between 1965 and 2012 during nonwork and nonpersonal care activities for couples without and with children, respectively. Both parents and nonparents spent, on average, more than four hours together per day. The total time spent together for nonparents increased dramatically from 245 minutes in 1965 to 312 minutes in 1975, and it then 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 remained fairly level thereafter. 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 by 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 time spent alone together.

To further investigate these descriptive trends in time shared with a spouse for parents and nonparents, we estimate ordinary least squares (OLS) regression models. We pool the four years of AHTUS data (1965, 1975, 2003, and 2012) and include indicators for year of survey.[9] This approach 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 nonparents 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 with 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 with 1965.

Estimates of *total time*, *spousal time*, and *family time* for parents are presented 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. After 1975, the total time with a spouse for parents remained mostly level. The amount of time that parents spend alone together was also largely constant after 1965. By contrast, time spent with spouse and children increased substantially after 1965, net of other changes in characteristics. Parents in 2012 spent about an hour more together with children than did parents in 1965.

[9] We use OLS rather than Tobit models to perform these analyses because few respondents reported 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).

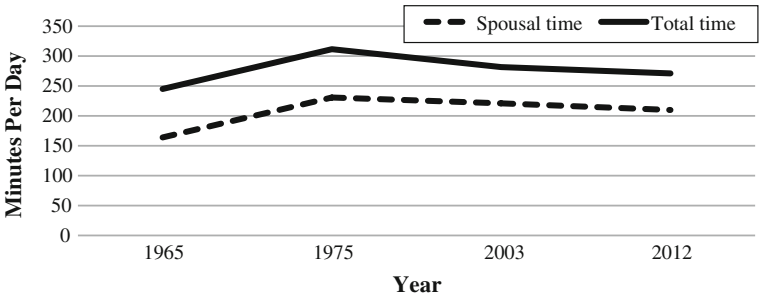


**Fig. 1** Nonparents' shared time with a spouse, 1965–2012

We find significant demographic variation in time spent with a spouse. For both parents and nonparents, individuals in male breadwinner and female breadwinner couples spent more time together (for each measure of shared time) than those in dual-earner couples. We find that compared with nonwhite respondents, white respondents without children spent 53 minutes more together in total per day and about 33 minutes more alone together per day. For parents, however, the only small race difference that we find is for total time: white respondents spent 17 more minutes with their spouse per day than nonwhite respondents. Parents with some college education spent 14 more minutes together in total than less-educated parents. Parents with a child under age 5 spent 10 more minutes together in total and 25 more minutes in family time, but they spent 17 fewer minutes alone together than parents of children ages 5–17. Each child in the household was associated with 6 fewer minutes in total time and spousal time and 3 minutes more in family time.

Given major shifts in the composition of the population over the 50-year period under study, it is possible that the trend of increasing shared time with a spouse in the OLS models is the result of compositional shifts in the U.S. population. Alternatively, behavioral changes within marriages may be contributing to observed differences. Following previous studies that analyzed trends in time use (Aguiar 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. It is possible that the variables we observe do not capture the full demographic composition of the population and that the change that we attribute to behavior is actually partly due to changes in compositional factors for which we do not

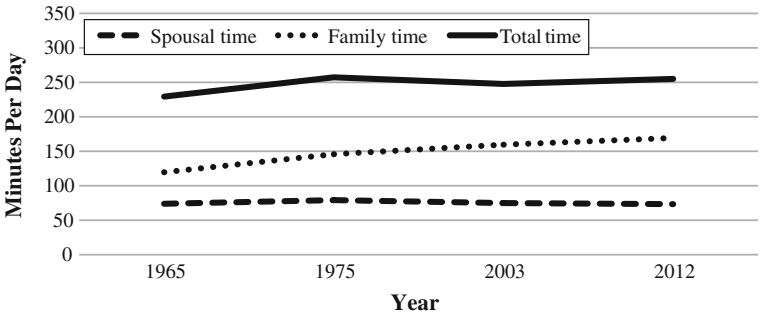


**Fig. 2** Parents' shared time with a spouse, 1965–2012

**Table 2** OLS regression estimates of nonparents' and parents' shared time with a spouse

| | Nonparents | | Parents | | |
|---|---|---|---|---|---|
| | Total Time | Spousal Time | Total Time | Spousal Time | Family Time |
| Year (ref. = 1965) | | | | | |
| 1975 | 62.842*** | 64.061*** | 32.201*** | 5.041 | 30.341*** |
| | (11.15) | (10.18) | (7.39) | (4.44) | (6.02) |
| 2003 | 46.201*** | 61.519*** | 28.011*** | 1.391 | 49.600*** |
| | (8.98) | (7.91) | (6.21) | (3.41) | (5.23) |
| 2012 | 40.174*** | 53.167*** | 36.310*** | –0.952 | 61.375*** |
| | (10.09) | (8.89) | (6.89) | (3.73) | (5.89) |
| Education (ref. = some college) | | | | | |
| High school or less | 13.883* | 8.79 | 0.943 | –4.131 | 2.284 |
| | (6.29) | (5.82) | (4.18) | (2.32) | (3.59) |
| Employment Status (ref. = dual-earner couple) | | | | | |
| Male breadwinner couple | 46.713*** | 34.963*** | 34.546*** | 10.263*** | 21.652*** |
| | (7.37) | (6.68) | (4.17) | (2.35) | (3.52) |
| Female breadwinner couple | 40.213*** | 38.623*** | 53.095*** | 17.362** | 34.770*** |
| | (10.08) | (9.07) | (10.07) | (5.72) | (8.94) |
| Age of Youngest Child (ref. = 5–17) | | | | | |
| 0–4 | | | 9.457* | –16.833*** | 24.053*** |
| | | | –4.401 | –2.448 | –3.757 |
| Number of Children | | | –6.133** | –5.770*** | 3.237* |
| | | | –1.895 | –1.095 | –1.58 |

**Table 2** (continued)

| | Nonparents | | Parents | | |
|---|---|---|---|---|---|
| | Total Time | Spousal Time | Total Time | Spousal Time | Family Time |
| Race (ref. = nonwhite) | | | | | |
| White | 53.450*** | 33.200*** | 17.179** | 5.248 | 7.171 |
| | (9.27) | (8.29) | (6.46) | (3.38) | (5.45) |
| Age (ref. = 20–34) | | | | | |
| 35–49 | –19.745* | –5.671 | –10.969* | –2.97 | –12.011** |
| | (9.07) | (8.32) | (4.73) | (2.63) | (4.03) |
| 50–64 | –16.309* | –5.865 | –32.378*** | 6.323 | –55.903*** |
| | (7.71) | (7.05) | (7.24) | (4.67) | (5.77) |
| Sex (ref. = male) | | | | | |
| Female | –5.060 | –11.402* | –12.079** | –3.724 | –10.482*** |
| | (5.83) | (5.35) | (3.79) | (2.16) | (3.18) |
| Day of Week (ref. = weekday) | | | | | |
| Weekend | 204.321*** | 122.794*** | 214.685*** | 30.931*** | 160.485*** |
| | (6.21) | (5.62) | (4.08) | (2.23) | (3.65) |
| Constant | 126.993*** | 91.849*** | 151.822*** | 80.985*** | 46.125*** |
| | (14.35) | (12.91) | (11.58) | (6.40) | (9.62) |
| Number of Observations | 5,489 | 5,489 | 11,465 | 11,465 | 11,465 |
| $R^2$ | .184 | .097 | .216 | .03 | .186 |

*Notes:* The sample includes all married respondents aged 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 shown in parenthesis and allow for nonindependent regression errors within persons for 1975.

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

have information. However, given the existing literature and the richness of the survey accompanying the time diary data, our compositional measures are quite comprehensive, and we attribute the portion of the change that is not due to demographic characteristics to behavior.

We use the Oaxaca-Blinder (Oaxaca 1973; Binder 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 as measured by the characteristics in our data; the second part is the change due to factors not captured in our model and data, including behaviors. The first part can be considered as "explained" by the model, and the second is considered to be the part "not explained" by the explanatory variables. More formally, the decomposition is estimated as follows:

$$\overline{Y}_{2012} - \overline{Y}_{1965} = \beta_{2012} \times (\mathbf{X}_{2012} - \mathbf{X}_{1965}) + (\beta_{2012} - \beta_{1965}) \times \mathbf{X}_{1965}.$$

$\overline{Y}_{2012}$ and $\overline{Y}_{1965}$ are the means of total time for the 2012 and 1965 samples, respectively. OLS regressions estimating $Y$ in each year produce the coefficients ($\beta_{2012}$ and $\beta_{1965}$) from the vector of year-specific characteristics ($\mathbf{X}_{2012}$ and $\mathbf{X}_{1965}$).[10] The term $\beta_{2012} \times (\mathbf{X}_{2012} - \mathbf{X}_{1965})$ is the part explained by differences in the composition of the population in the year, and the term $(\beta_{2012} - \beta_{1965}) \times \mathbf{X}_{1965}$ is the part not explained by the variation in composition of the groups: it is the part that we attribute to different behaviors. 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-Blinder decomposition analysis of childless couples' total and spousal time and of parents' total time and family time for couples.[11] 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 nonparents (columns 1 and 2) and parents (columns 3 and 4).

For each type of time (total, spousal (nonparents only), and family (parents only)) and both versions of the decomposition (panels A and B), compositional change—that is, changing demographics—yields *larger* differences over time (negative "explained" results) for couples' shared time.[12] 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, the behavioral change between 1965 and 2012 is estimated to have increased spousal 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 nonparents', and the largest estimated behavioral change is in family time. Therefore, changes in observed demographic characteristics are *not* contributing to the

[10] The variables included as characteristics are the same as in the previous pooled OLS models.

[11] 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.

[12] Because the results are similar, we show the characteristics from 2012 and the 1965 coefficients (results in panel B of Table 3) but do not discuss them.

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

| | Nonparents | | Parents | |
|---|---|---|---|---|
| | Total Time | Spousal Time | Total Time | Family Time |
| Panel A. 1965 Characteristics with 2012 Coefficients | | | | |
| 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 |
| Panel B. 2012 Characteristics with 1965 Coefficients | | | | |
| 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 |
| Number of Observations | 1,772 | 1,772 | 4,208 | 4,208 |

*Notes:* The sample includes all married respondents aged 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.

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 50-year period.

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 nonparents and parents the predicted average total minutes spent in five specific activities and the predicted average 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 OLS regression models with all the controls shown in Table 2. For each activity-year combination, we also compute the share of the time spent with a spouse in each activity (share = total time with spouse in activity / total time in activity) in order 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 nonparents. The decreases in time spent eating with a spouse are large in magnitude: nonparents' average time spent eating together was 50 minutes (46 minutes for parents) in 1965 compared with 33 minutes (31 minutes for parents) in 2012. 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 nonparents and parents, leisure time and television watching with a spouse increased between 1965 and 2012, as did the total amount of time in leisure and television watching. Looking at

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

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

*Notes:* The sample includes all married respondents aged 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 is 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.

shares, though, we see different stories. The share of leisure time that couples spent together has increased from 39 % in 1965 to 45 % in 2012; however, despite watching more television, couples spent a smaller share of time watching television with a spouse in 2012 (60 %) than in 1965 (71 %). Shares of time watching television with a spouse were largely similar for parents, although parents had less leisure time than nonparents and watch less television.

Housework is one activity in which Americans spent less time overall in 2012 compared with 1965. For nonparents, time spent in housework with a spouse increased slightly after 1965. Because total time in housework declined and time in housework with a spouse increased, we see a rise in the share of time spent in housework done with a spouse: from 22 % in 1965 to 32 % in 1975 and later. Parents' shared time in housework also increased, as has the share of time in housework with a spouse, from 19 % in 1965 to 26 % in 1975 and 2003 and to 27 % in 2012.

Most striking for parents, however, is the tremendous change in primary childcare. Total time in this activity more than doubled, from 41 minutes in 1965 to 88 minutes in 2012. Time spent with a spouse in childcare quadrupled from 6 minutes to 27 minutes. Finally, the share of time parents spent together in childcare between 1965 and 2012 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 in recent years 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 nonmarital cohabitation, delayed marriage, and the rise in couples without children. Some scholars have argued that marriage is becoming more individualistic (Cherlin 2004), pointing to the aforementioned trends as well as declines in couples' shared time as evidence (Amato et al. 2007). Others have argued that changes in marriage, including greater homogamy among couples (Schwartz and Mare 2005), have increased consumption complementarity between couples (Mansour and McKinnish 2014; Stevenson and Wolfers 2007). The extant literature is extremely limited, and this study begins to fill an important gap by providing insight into how couples' shared time changed between 1965 and 2012.

We find that over the 50-year period under study, the average amount of time that individuals spend with a spouse per day increased. Although we cannot know whether the growth over the period was linear, the results show that in 2012, the average total minutes per day that couples spent together was greater for both parents and nonparents than in 1965. Spousal time for nonparents and family time for parents were also higher in 2012 than in 1965. 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 captured by the data, such as the increase in women's labor force participation, having fewer children, and increasing educational attainment. If the demographic composition of the population were the only change between 1965 and 2012, couples would have been 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) childcare 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 nonparents' and parents' time spent alone together between 1975 and 2003. Similar to Dew (2009), we find that nonparents lost time alone together between 1975 and 2012 (11 minutes); however, by extending the analysis back to 1965, we find a 53-minute increase over the period. By contrast, we find that parents did not gain or lose time alone together between 1965 and 2012.[13] We also 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. Despite overall increases in shared time with a spouse after 1965, parents spent less of their shared time alone with each other.

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 increased slightly between 1965 and 2012, but we observe different—and interesting—patterns for housework, childcare, and meals. Although couples were doing less housework overall at the end of the period, they were doing a greater share together over time. In addition, time spent in childcare, for parents, has changed dramatically and is increasingly shared with a spouse. Whereas the share of meal time spent with a spouse remained constant over the period, the amount of time spent primarily eating or drinking with the family has decreased significantly, which is perhaps not surprising given women's increases in paid work and the gendered responsibility of planning and preparing meals (DeVault 1991).

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, 2009) and trends that imply greater time scarcity for couples, the actual increases observed in couples' shared time 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). The increases in couples' shared time may also be related to selection into marriage and selection related to staying married. That is, with the rise of nonmarital cohabitation and divorce, couples no longer have to marry for economic reasons, and they no longer have to stay married if they are unhappy. This change may translate into a greater percentage of

[13] We find no statistically significant differences in parents' time alone with a spouse between 1965 and 2012, net of controls. Our findings are inconsistent with Dew's (2009) work because we account for differences across surveys in the measurement of the co-presence of others; specifically, *whom* 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.

married couples in 2012 versus 1965 who are happily married and want to spend time together. The large increase in time together ascribed to behavioral change in our decomposition analysis also suggests that married couples today may be different from married couples in 1965 in terms of the importance of family, religiosity, and other characteristics that are unobservable.

Despite spending more time together, shared time may be colored by always 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 Young-DeMarco 2001). Supplemental analyses of time individuals in our sample spend solo parenting (without a spouse present) show increases for both men and women between 1965 and 2012, which is consistent with literature on increases in parents' time with children and the rise of intensive parenting (e.g., Bianchi 2000; Hays 1998; Sayer et al. 2004).[14]

Married individuals, on average, were quite successful in carving out time for a spouse over the 50-year period we study. At the very least, they did not lose time alone together, and they spent more time with one another in 2012 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 in 1965, it is evident that couples are spending more time together and that these changes are less the result of changing demographic characteristics of married couples and rooted more in behavioral changes.

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[14] Results from the supplemental analyses are available upon request.

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