

“Gender, Time Use and Aging”

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This chapter provides an overview of gender differences in time use at older ages. We begin with a brief overview of the measurement of time use among older adults. Next, we compare gender differences in daily time allocated to paid work, care work, and leisure between adults 55 and older and those 25-54, emphasizing how gender differences change with age. We then examine social aspects of time use in later life, including how older men and women differ in their time spent alone. Last, we examine caregiving and how its influence on time use and wellbeing varies by gender. We conclude with a discussion of needed directions in research on gender, aging, and time use.

Keywords: aging, gender, time use, life course, caregiving, wellbeing, employment, leisure, social contact

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A. Introduction

Do gendered time use patterns among older adults mirror those that characterize women's and men's earlier life stages? Or does time use allocation in later life become less gendered as life stages are reoriented away from paid work and raising children to new pursuits? Later life disability and increased likelihood of living alone in young and older adulthood may alter the activities in which individuals engage, the amount of time spent on various activities, and time socializing and interacting with others. "Productive" uses of time may be redefined with implications for later life well-being. Both objective and subjective aspects of time likely change at later life stages.

Time is a fundamentally gendered resource. How women and men allocate their time expresses information on what activities are valued and how time constraints are linked with power relations, cultural beliefs, and individual behavior. Examining gender differences in time use among older adults provides vital insight into continuity and change in gender equality, and implications of gendered work and family roles for well-being. Women's and men's differential allocation of time across the life course is interwoven with well-being because of the ways time use affects economic, social, and health capital and resources.

Women's greater responsibility for carework and household work adversely affects labor market outcomes by reducing labor force participation and rewards. Most salient for older women is the negative effect of household and care work on lifetime earnings, and retirement income (savings, pension, social security) (2007). Economic insecurity in old age is particularly strong among single, divorced, and widowed older women (Venn, Davidson, and Arber 2011). Gendered work and family roles reduce women's access to total leisure as well as leisure with

health or social implications (e.g. time exercising, playing sports, or socializing) (Bianchi, Robinson, and Milkie 2006; Sayer and Gornick 2009) .

Over the last four decades of the 20th century, earlier retirement, increased education, health, and life expectancy altered the life course ratio of paid work to leisure. The surge of women into the labor force, combined with lower fertility rates, delayed entry into marriage, and increases in nonmarital childbearing, cohabitation, and divorce rates, altered the life course ratio of paid work to caregiving, as well as community and civic involvement. Despite these substantial changes, paid work and parenting continue to differentiate women's and men's life course choices and trajectories. Changes in family structure have increased the number of women raising children alone, and decreased the amount of time men spend living with residential children (Goldscheider and Hogan 2001) . Changes in employment opportunities have ushered in a reversal of early retirement ages, as the he proportion of workers 55 and older has been increasing since 2002 (Toosi 2013). Additionally, the recession has caused some older employed adults to postpone retirement and others to return to paid work (Bureau of Labor Statistics 2013). Women retire at older ages compared with men and may be more likely to postpone retirement and/or return to employment because of their lower wages and probability of having sufficient retirement nest eggs. Thus, women's "life pathways show greater complexity, variability, and "disorderliness" compared with those of men, and these differences have profound influences on gender and time use among older adults (Hagestad 1990).

We begin with a brief overview of the measurement of time use among older adults. Next, we compare gender differences in daily time allocated to paid work, care work, and leisure between adults 55 and older and those 25-54, emphasizing how gender differences change with age. We then examine social aspects of time use in later life, including how older men and

women differ in their time spent alone. Last, we examine caregiving and how its influence on time use and wellbeing varies by gender. We conclude with a discussion of needed directions in research on gender, aging, and time use.

B. Measuring Time Allocation in Later Life

Three main approaches for measuring time are currently in use (National Research Council 2000): experiential sampling methods (Csikszentmihalyi M. and Larson 1992), retrospective 24-hour time diary methods (Juster and Stafford 1991), and stylized reporting (Pencavel 1986). Particularly germane for studying older adults, each approach has a fundamentally distinct reference period, which in turn has implications for cognitive demands and hence measurement error. The methods also differ by how much detail is obtained about the activities (how fine-grained the activity codes ultimately are and how much of the day is captured), whether descriptors (e.g. location, other actors, emotions) can be collected, how well they capture uncommon activities, and whether multitasking—believed to be common for instance among caregivers—can be readily captured. Sources of concerns about measurement bias also vary by approach.

The approach with the shortest reference period, experiential sampling, involves contacting study participants at random times of day. Typically, the participant is asked questions about what they were doing in a brief window just before the contact. Contact may be made by any programmable device (beeper, programmable wristwatch, smartphone, or other type of technology), which then triggers a series of questions. Respondents may be asked not only what they have been doing, but other descriptors such as who they were with, where they were, and how they felt. Studies vary with respect to number of contacts per day and number of collection days.

Of the three approaches, questions following experiential sampling pose the lowest cognitive demands since the reference window is very recent and often relatively short. Experience sampling also offers the benefit of being able to collect open ended text that allows fine-grained coding of activities. Descriptors are easily captured and typically focus on affective states, although the method has been successfully combined with physiological measures as well (Stone et al. 1999). In addition, multiple activities (multi-tasking) are well captured for a given time period (Offer and Schneider 2011). However, the approach does not provide a picture of the full day, is more likely to capture activities with longer durations, and, although it does not exclude them, is not designed to capture uncommon activities. Non-random non-response, which may be linked to the participant's activity level, is also a potential concern.

The retrospective 24-hour diary asks individuals to recall all activities on the prior day. The American Time Use Study, conducted by the Bureau of Labor Statistics (ATUS 2010, see Phipps and Vernon 2009), and the Disability and Use of Time (DUST) supplement to the Panel Study of Income Dynamics (PSID), conducted by the University of Michigan (Freedman et al. 2013), for example, ask respondents what they were doing starting at 4 AM the previous day, for how long they did that, where they were and who else was there. They then ask the respondent what they did next, and so on, until a 24-hour diary is completed. Supplemental questions can be used to target specific types of activities on the prior day, such as care for an older adult (U.S. Bureau of Labor Statistics 2013b). The 24-hour diary also forms the basis of the Day Reconstruction Method (DRM), which is designed to measure wellbeing as it is experienced through the day (Kahneman et al. 2004). The DRM methodology also can be used to measure physical symptoms such as pain (Krueger and Stone 2008). ATUS and PSID's DUST have both incorporated wellbeing measures into their diary collections.

The diary interview takes longer to administer than other methods (e.g. 15-25 minutes total depending on the number of descriptors), but offers a complete picture of the day and allows descriptors to be collected for each episode. Typically open text (or some combination of precodes and open text) is captured and systematically coded so that researchers can have maximum flexibility in aggregating various activities. In addition, multi-tasking may be addressed. Large samples, like those in the American Time Use Study, allow investigation of less common activities. Because time use varies substantially from day to day, diaries are useful for studying average differences between groups and aggregate population trends, but not for studying within-person trajectories over time unless multiple diaries per person are collected at each time period.

Although the retrospective diary is more cognitively demanding than experiential sampling, the few studies that have explored its validity among older adults suggest older adults are able to complete the diary with an acceptable level of accuracy. In the American Time Use Study, for instance, the incidence of activity codes with “don’t know” or “can’t remember” responses tends to increase with respondent age (U.S. Bureau of Labor Statistics 2013a), albeit remains low on average even at very old ages (less than 1% among 65 and older; authors tabulations). Moreover, in a sample of 83 older volunteers, Klumb and Baltes (1999) found considerable agreement between yesterday interviews and experienced sampling measures. Where there were differences, cognitive functioning did not appear to account for discrepancies. Similarly, Freedman and colleagues (Freedman et al. 2013) found that in national sample of same-day diaries from older couples (mean age nearly 70), 96% of all diary sequences successfully elicited a codeable answer. In a related analysis (Freedman et al. 2012b), the authors found that 76% of activities described as joint by at least one respondent had a matching

record in the spouse's diary. The quality of the matches appeared to be quite good, with the majority of matched activities having overlapping times reported by spouses and being described as joint by both spouses.

Perhaps the most common approach to measuring time use, stylized questions ask respondents to estimate how much time was spent on various activities over a longer period of time. Participants may be asked to report typical amounts of time or actual amounts in a given reference period, typically a week, a month, sometimes longer if the activity is rare. For example, the Health and Retirement Study's Consumption and Activities Mail Survey (CAMs) asks "How many hours did you actually spend LAST WEEK ...?" and "Now think about the LAST MONTH. How many hours did you spend last month..."

These items may pose greater cognitive demands than the experience sampling and time diary methods, since respondents need to review a longer time period and may need to compute answers, for example by multiplying, adding, averaging or otherwise estimating to provide an answer (Kan and Pudney 2008). Moreover, responses may be prone in some cases to systematic bias, reflecting socially acceptable answers rather than actual activity levels (Kan and Pudney 2008). Because open text is not captured the method relies on a broadly shared understanding of the meaning of activity categories. Descriptors are not easily incorporated into this approach, nor is multitasking generally explicit, since time is often being summed across distinct activity episodes. Nor is it straightforward to make comparisons over time or across samples, as time does not sum to 24 hours or to another standard unit. However, this approach is better able than the other methods to capture activities that are carried out less frequently. Using a recent reference period (e.g., a week) and focusing on commonly occurring activities may help mitigate errors. Stylized questions also may be especially well suited for studying time spent in particular

activities (such as work, see Juster, Ono, and Stafford 2003) and, because they are less variable than 24-hour measures, changes within individuals over time.

Finally, briefer hybrid approaches that bring elements of the stylized approach to the last 24 hours have been implemented in population surveys (Juster et al. 2003). For instance, in the National Study of Daily Experiences participants were asked at the end of 8 consecutive days how much time they spent on various activities during the past day (Hahn et al. 2011) as well as stressful experiences on the prior day. Similarly, a short day reconstruction measure was incorporated into the Health and Retirement Study's 2012 Psychosocial Self-Administered Questionnaire and the English Longitudinal Study on Aging's Wave 6 (2012/2013) Self Completion Questionnaire. After establishing wake and sleep times, participants are asked about time spent in categories of common activities on the previous day with follow-up questions about emotions, stress, and pain experienced during those activities. This approach is less cognitively demanding than the stylized approach with longer reference period and descriptors could be incorporated by asking respondents to report on each instance yesterday if more than one occurred. However, like the stylized method, time does not sum to 24 hours and benchmarking exercises with the full 24-hour diary approach suggest systematic upward bias in limited cases (e.g. physical activity; see Smith et al. 2014). Nevertheless, on balance, the approach holds promise as a brief measure of activity-linked wellbeing on the prior day.

C. "A Day in the Life" of Older Adults

This descriptive section compares and contrasts the daily time allocation of women and men aged 55 and older. We consider how aging affects gendered time use and how associations are conditioned by employment and caregiving roles. Most studies of gendered time use and aging rely on cross-sectional data – either stylized or time diary estimates – limiting our ability to

directly examine how role transitions affect older adults' time use patterns. In general, though, the gender, aging, and time use literature points to stronger associations of event- or role-transitions with time use variation across the life course than with age per se. Older and younger Americans devote the majority of daily hours to paid work, leisure and self-care activities; men report higher work and leisure time; and women report higher care and household work time. Gender differences persist among adults aged 55 and older, despite transitions out of employment and parental roles.

Sociological and economic theories hypothesize that time allocation is determined by economic utility maximization, as well as habits, cultural beliefs and norms, and opportunity structures (Gershuny 2000). At all ages, individual decisions about time allocations to paid work, care work, and leisure are influenced by micro-level characteristics like employment, education, and family structure, along with public policies, economic development, and social inequality. This is because macro level social welfare policies regarding taxes, pensions, and care provision affect the supply of older workers through their influence on income and thus the opportunity costs of foregoing employment. Additionally, cultural beliefs that older workers are less technologically proficient and adaptable appear to depress employer demand for older workers (Calasanti 2001). In short, employment / leisure time tradeoffs operate differently for older adults than they do for younger adults.

These factors also have fundamentally different associations with time use and implications for well-being for older women and men. Time use across the life course is associated with gendered access to market-based and family-based resources and rewards, as well as access to leisure. Earlier gendered life stages have cumulative and contemporary effects on economic and social resources in old age. Occupational gender segregation and the gender

wage gap reduce women's lifetime earnings and thus depress savings, pension, and social security income older women have available in retirement (Venn et al. 2011). Despite transitions out of time-intensive mothering, older women continue to have more responsibility for caregiving, even when they remain employed. Women's longer life expectancy and higher likelihood of marrying a man older than themselves, means they are more likely than men to be the primary caregiver for a frail or ill spouse/partner (Barusch and Spaid 1989; Meyer and Parker 2011). Older men who are responsible for the care of an ill or frail spouse report higher levels of carework and household work than other men, but still less than comparable older women (Calasanti 2001). Although women's larger social networks should facilitate involvement socializing and interacting with others, their caregiving responsibilities instead are associated with lower quantity and quality leisure (Michelson and Tepperman 2003).

In general, older Americans allocate less time to paid work and more time to household work, leisure, and sleep compared with younger adults (Gauthier and Smeeding 2010; Krantz-Kent and Stewart 2007; Robinson and Godbey 1999). Comparisons of pooled 2008-2012 data from the American Time Use Survey (ATUS) show that adults aged 55 to 64 report 3.4 hours per day in paid work, 2.2 hours more than those aged 65 to 74, and 3.1 hours more than adults aged 75 and over (<http://www.bls.gov/TUS/CHARTS/OLDER.HTM>). Time "freed" from employment is devoted to leisure — 7.5 hours per day among adults 75 and older compared with 5.3 among those aged 55 to 64 — and sleep — 9.2 hours a day among adults 75 and older compared with 8.4 hours a day among those aged 55 to 64 — but not household activities, at about 2 hours a day for each age group.

Older women and men allocate different amounts of time to these activities, although gender differences attenuate with age due to life-stage transitions out of full-time employment

and parenting but, among some, also into providing care for frail or ill partner. Figure 1 shows women's and men's daily hours in paid work, household work (care and housework), volunteer activities, leisure and sports (socializing, television, sports, exercise, reading, and relaxing), sleep, and other activities (religious, grooming, eating, travel, and other not elsewhere classified or uncoded) across four age groups: 55 to 59, 60 to 64, 65 to 69 and 70 and older (author calculations of 2003-2004 ATUS data from Krantz-Kent and Stewart 2007 Table 1:12-13). On average, men 55 and older do about an hour more per day of paid work; women do about 1.3 hours more daily household work than men. Men's lower household work means they enjoy .7 hours a day more leisure than women. Results not shown indicate that older women (like younger women) also report lower levels of active leisure compared with men, but television accounts for about one-half of the additional leisure hours for men and women ages 55 and older. Gender does not differentiate volunteering (.2 hours for both) or sleep time (8.5 hours for both).

Decreases in paid work and household work time and increases in leisure and sleep time are observed across Western industrialized countries, but the level of time devoted to paid work and active leisure varies across countries. American women and men aged 55 and older report higher paid work hours compared to Western and Northern Europeans. The leisure activity mix also varies, with older Americans devoting a higher proportion of their leisure time to television and less to active leisure (Gauthier and Smeeding 2010). Additionally, comparisons of 1970s and 1990s time diary and stylized survey data on participation in leisure activities indicates active leisure time had declined among American women and men aged 55 and older whereas it had increased among European older adults, particularly time devoted to social engagement with friends and public leisure, like frequenting pubs and movie theaters (Agahi and Parker 2005; Gauthier and Smeeding 2010; Gershuny 2000). Older women and men may devote more time to

sedentary leisure and less to active or social, because of poor health, income constraints, and age-graded norms that older adult involvement in sports / active leisure is inappropriate (Cutler and Hendricks 1990).

How do gender differences in time use change as women and men grow older? Across age groups shown in Figure 1, gender differences in paid and household work diminish with age, but older men continue to do more paid work and less household work compared with same-age women. For example, men aged 55 to 59 report 1.3 hours more paid work and 1.2 hours less household work compared with women aged 55 to 59, whereas men aged 70 and older report only .4 hours more paid work and 1 hour less household work. For both women and men, age differences in volunteering are modest, perhaps because of the low levels of time volunteering captured by daily time diary data: .1 hours among women and men aged 55 to 59 and .2 among those 60 and older. Time sleeping also increases with age similarly for women and men: rising from 8.1 hours among those aged 55 to 59 to 9.0 hours per day among those aged 70 and over. However, because decreases in men's paid work time are not offset by comparable increases of household work time, across age groups men continue to enjoy a leisure bonus of about .6 to .7 hours per day.

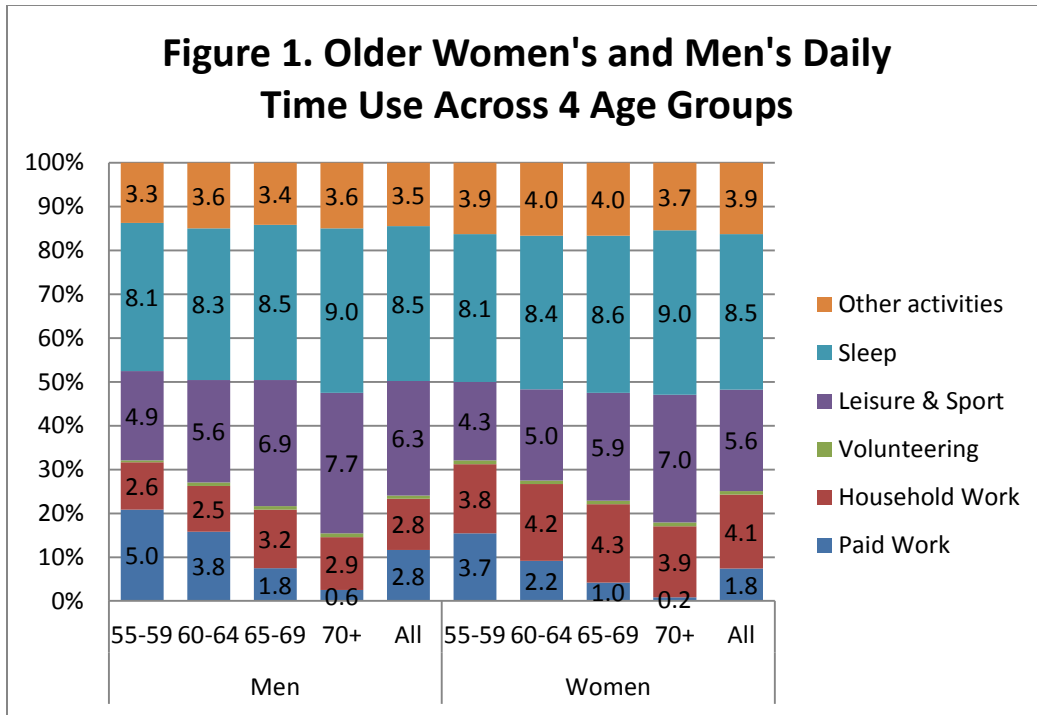


Figure 1 presents only a partial answer to the question of how women’s and men’s time use changes with age. Considering how employment and family roles affect women’s and men’s time use as they age is paramount to present a more accurate picture. Employment and family roles affect time use more than age, per se, because of their enduring and contemporary influences on economic resources, time availability, and opportunities for social engagement and productive activities. A comparison of indices of dissimilarity in time use across four age groups of older adults by employment status indicates that life course transitions out of employment change time use, whereas the comparison across age groups within employment status shows marked similarity in time use (Krantz-Kent and Stewart 2007). Similar results are reported by other studies examining aging and time use (Gauthier and Smeeding 2010; McNamara 2008; Sayer and Gornick 2009).

In general, older women and men who transition out of employment or reduce hours have more time available for household and care work. However, with increasing age, the demand for

household work likely declines because of home downsizing, smaller household sizes, and at much older ages moves to residential care settings. Older adults may also experience disabilities that make physically or cognitively demanding chores (as well as other activities) more difficult. The demand for carework, however, may increase with age, because of the presence of a frail or ill spouse or partner. Offsetting supply and demand factors are suggested by the non-linear pattern of age and household work shown in Figure 1: household work time increases from 2.6 hours among men ages 55 to 59 to 3.2 hours per day among men aged 65 to 69, but then declines to 2.9 hours per day among men aged 70 and older. Comparable estimates are 3.8 for women aged 55 to 59, 4.3 for those aged 65 to 69, and 3.9 for those aged 70 and older. Detailed comparisons by employment status indicate household work time is relatively similar across age groups among women who are employed full- and part-time, and among men employed full-time. However, household work time declines with age for men employed part-time, and among men and women who are nonemployed (Krantz-Kent and Stewart 2007). This pattern points to health-related shifts that reduce women's and men's ability to do housework, more than supporting the idea that shifts of time out of employment are reallocated to household work. The amount of time in household work is also influenced by preferences or standards: women and men who report high participation and time in household work before retirement also spend more time in these activities post-retirement, whereas those with limited pre-retirement household work do not increase their relatively modest allocations post-retirement (McNamara 2008).

Gender differences in household and care work persist with age. For example, men's household and care work does not vary by the presence of spouse or partner, but among nonemployed women ages 65 and older, living with spouse increases household and care work by about one hour a day, with most of this time spent cooking and cleaning up (Krantz-Kent and

Stewart 2007). Further, spouses' time appears to complement not substitute for that of their spouse. Studies using couple-level time use data report that when husbands or male partners report high levels of household or care work, the wife also reports high levels, both among working age couples (Bianchi et al. 2006; Craig and Mullan 2011) and among couples 55 and older (Niemi 2009).

Comparisons of older women and men in similar roles show diminished differences more so in leisure and sleep time than in paid work and household work. For example, women who are employed full-time report slightly lower paid work hours (5.7 for women and 6.4 for men aged 55 to 59; 5.4 for women and 6.0 for men aged 65 to 69) and slightly higher household and care work hours (3.0 and 2.1 for women and men aged 55 to 59; 3.0 and 2.2 for women and men aged 65 to 69, see Table 1 Krantz-Kent and Stewart 2007). Yet, women who are employed full-time report 3.6 to 4.0 hours per day of leisure, comparing those aged 55 to 59 to those aged 70 and over; men who are employed full-time report between 4.2 and 4.1 hours of leisure per day.

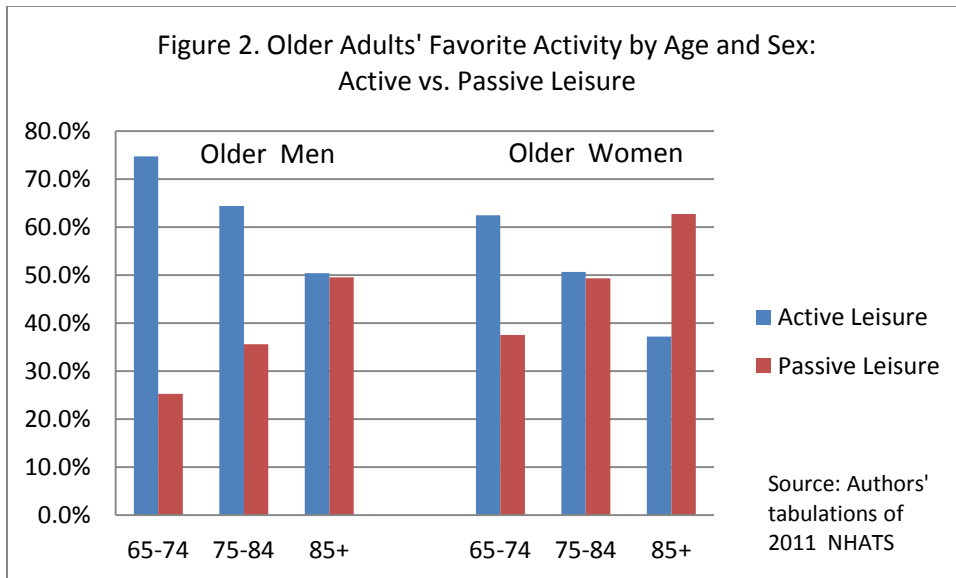
One reason for movement toward gender time convergence among adults 55 and older is the life stage progression of cohorts of women who were 25 to 44 in the 1980s. These two cohorts transitioned into adulthood during widespread expansion of women's educational and employment opportunities. Thus women aged 55 and older today experienced employment roles more similar to men's throughout their prime working years and as a result older age role transitions that are more similar to men's than they are to earlier cohorts of women.

However, the opportunity to segue out of paid work, and the experience of retirement, is distinctly different for women and men. Earlier studies adopted a "male stream" perspective, and overlooked the implications of women's household work for their retirement and post-retirement status (Calasanti 2001; Venn et al. 2011). Women's ability to retire and their post-retirement

resources are depressed by gender employment inequalities and these affect mothers more so than women who are not mothers. A national 2009 survey conducted by the Pew Research Center Social and Demographic Trends Projects (Kochar 2009) reports that 54% of workers ages 65 and older remain employed because of social-psychological benefits (they feel more useful, have a sense of purpose and structure, and enjoy enhanced opportunities to interact with other adults), whereas younger workers are more likely to cite economic reasons for being employed. However, the breakdown by gender shows that 25% of older women report they need to work for the money, 43% want to work, and 32% indicate both need and want; whereas among older men, comparable estimates are 12% economic need, 63% want to work, and 22% both. Krantz-Kent and Stewart's (2007) comparison of time use patterns by employment status across four age groups (55 to 59 to 70 and older) indicates that men use part-time employment as a "bridge" between full-time work and retirement, whereas women's patterns are much more heterogeneous.

Work and family roles also affect gendered experiences of leisure in old age. Employment and family affect time available for leisure and differentiate types of leisure, as do the higher educational levels of today's older adults. Employment among older adults provides opportunities for social interaction and may increase funds available for leisure. In contrast, nonemployed adults may experience greater constraints on activities because of poor health, more limited social networks, and income constraints (Sayer and Gornick 2009). Gender disparities in caregiving time contribute to lower levels of leisure for older (and younger) women, and less time in exercise and social activities (Nomaguchi and Bianchi 2004; Pinquart and Sorensen 2007). Women's leisure is also more intertwined and fragmented with household work, and thus more "homebound," and less relaxing and refreshing (Venn et al. 2011).

Types of leisure have distinct implications for well-being because they affect the accumulation of health, cultural, and social capital and the benefits related to participating in the social infrastructure of the world (Cutler and Hendricks 1990). Civic, active, and social leisure develop and maintain social and physical capabilities and promote health, cultural and social capital (Freysinger 1995; Putnam 2000). In contrast, sedentary leisure like watching television is less beneficial because it is more often socially isolated and, because of the zero-sum nature of time, crowds out time available for other activities. Recent data from the National Health and Aging Trends Study suggests gendered preferences in types of leisure activities in later life: when asked to name a favorite activity, older men are more likely than women to name an active leisure activity across all older age groups (see Figure 2).



Patterns of leisure engagement are established in adulthood and the small body of longitudinal research suggests gender differences persist over the lifecourse (McNamara 2008). Leisure in younger adulthood reinforces routines, capabilities and interpersonal bonds with social network partners. McNamara (2008) reports that women and men who devote more time to leisure prior to retirement also devote more time to leisure post retirement. Poor health reduces

women's and men's time in active and social leisure (Agahi and Parker 2005; Cutler and Hendricks 1990; Jake, Davey, and Kleiber 2005). Disability status in particular has pervasive negative influences on participation and time in discretionary activities like leisure, as well as time in paid work, care work, and volunteering, but research has not yet examined how disability and time use patterns differ between women and men (Freedman et al. 2012a; Verbrugge and Liu 2013) But, women experience higher morbidity in older adulthood, and this may be associated with gendered employment and caregiving patterns that reduce women's access to economic resources and increase obligatory time demands (Bird and Rieker 2008). Older women may also be more reluctant than men to spend time alone in public social and/or active leisure.

D. The Social versus Solitary Dimension of Time

One of the issues for older adults is their connections to others, their ability to leave home to interact with others, and the frequency with which they live with others or are visited by others. The increased number of older adults living alone and class- and race- linked patterns of relationship formation and employment after age 55 suggest that inequalities in time with others may be one mechanism through which time use affects well-being.

Social versus solitary dimensions of time use are of growing interest to scholars studying gendered time use. Spending time with other adults enhances older adults' capabilities, life satisfaction, and general well-being. Women and men who have access to less time in shared activities face increased risks of negative health outcomes, social isolation, and reduced accumulation of social capital (Bird and Fremont 1991; Bittman 2002; Bourdieu 1984; Miller and Brown 2005).

The two factors that matter most for social time are employment and living with a spouse/partner. Both increase opportunities for contact with others and engagement in socially oriented or public leisure. Gendered aspects of social time are linked with earlier life stage roles

(Arber, Andersson, and Hoff 2007). In older age, women have stronger relationships with family, in particular adult children, in part because of mothers' earlier life stage engagement in daily care of children. Older women are advantaged in terms of social relations, vis-à-vis older men, because they have more friends, better relationships not just with friends but also with family and neighbors, and larger social networks (Calasanti 2001). Further, cultural beliefs that self-disclosure and expressions of emotion are not masculine limit men's friendship and social networks (Venn et al. 2011).

Although leisure time increases with age, time in social leisure is similar across age groups, clocking in at about 45 minutes a day. This means that as a proportion of all leisure time, social leisure declines with age (Gauthier and Smeeding 2010; Krantz-Kent and Stewart 2007). Net of employment and relationship status, however, few gendered age differences in social leisure are significant.

Comparing within employment groups, absolute and relative measures of time spent alone increase for women but not men with age. Men aged 55 and older spent about 50% of "available" time alone (e.g. time that is not spent sleeping, grooming, or in paid work); in contrast, women aged 55 to 59 spent about 46.2% of available time alone, whereas those aged 70 and older spent 58.6% of available time alone (Krantz-Kent and Stewart 2007 Table 8:23). The difference is due to women's higher likelihood of outliving their spouse: older adults who do not live with a spouse or partner spend 75% of available time alone, or about 10.3 hours, twice the amount of alone time reported by older adults living with a partner. Time with friends and other family members is higher among older adults not living with a spouse or partner, but does not fully compensate for the absence of a spouse or partner. Gender differences in time with family and time with friends are not significant, nor do they vary with age. However, older women

spend more time with children compared with older men – among women 55 to 59, about 10.4% of available time, compared with 3.9% for women 70 and older; for men, 7.2% for 55 to 59 year olds, compared with 2.8% for men 70 and older (Krantz-Kent and Stewart 2007).

E. Caregiving, Time Use and Well-Being

Older adults are often the recipient of time in the form of care giving. According to the 2011-2012 American Time Use Study, nearly 40 million adults ages 15 and older identify themselves as providing care to an adult age 65 or older who needs help because of a condition related to aging (U.S.Bureau of Labor Statistics 2013b). The study defines care broadly to include hands-on care (such as assisting with grooming), assistance with household activities (preparing meals), transportation, companionship, and stand-by care. On a given day, one in four care givers actually provides care for an average of 3.2 hours. Multiplying through these figures imply 32 million hours of unpaid care annually to older adults.

Most caregivers to older adults are middle aged (45-64 year old) females; however, many care providers to older adults are of retirement age themselves (see Table 1). The intensity of care provided by older caregivers differs from that of their younger counterparts in several ways. Care providers ages 65 and over spent the most time providing care (4.1 hours per day vs. 3.2 hours per day overall) and a higher percentage of care givers in this age group helped yesterday (34.7% vs. 23.0% overall).

Table 1. Caregiving to Older Adults in the US: by Caregiver Age

Age of caregiver	Males (000s)	Females (000s)	Total (000s)	% of the Population	% of care givers who gave care yesterday	Average number of hours yesterday
15 year and over	17,500	22,064	39,564	16.1	23.0	3.2
15 to 24 years	2,569	2,761	5,330	12.5	15.4	1.3
25 to 34 years	2,035	2,015	4,050	9.8	12.9	3.0
35 to 44 years	2,301	2,758	5,060	12.8	20.5	2.5
45 to 54 years	4,267	5,839	10,106	23.1	22.3	3.3

55 to 64 years	3,517	4,849	8,366	22.2	26.0	3.5
65 years and older	2,810	3,842	6,652	16.3	34.7	4.1
US Bureau of Labor Statistics, 2013a						

Although the majority of older caregivers are female (3.8 out of 6.6 million), the percentage of older women and men who provide care is similar: 16.8% of older women vs. 15.7% of older men provide care (not shown).

Measuring time spent providing care poses unique challenges. Stylized time use questions that ask individuals to enumerate hours of care over some recent time period (e.g. last week or month) may provide an incomplete assessment of hours if care providers do not perceive their activities to be “care,” per se (Bittman et al. 2004). Retrospective diary-based measures, which obtain data on the specific activities performed over a 24-hour period, can also be problematic if they do not identify *why* or *for whom* household activities are carried out. For instance, a wife who does the laundry for her fully able husband may be doing housework, but if she does the laundry because he is unable due to health or functioning, she may be providing care.

Despite these measurement challenges, a number of studies have attempted to understand how caregiving influences other forms of time use. The most consistent focus has been on the tradeoff between care and labor force participation. A review of the literature by Lilly and colleagues (2007) concludes that caregivers are as likely to work as noncaregivers; that caregivers work fewer hours than non-caregivers, especially when care needs are substantial; and only those involved in substantial amounts of care are more likely than non-caregivers to withdraw from work altogether. Van Houtven and colleagues (2013) point out that given the largely cross-sectional evidence, the causal mechanisms remain unclear. Focusing on adult children who are care providers to parents or parents-in-law in the Health and Retirement Study,

they find that among female care providers who remain working, hours of work decrease 3-10 hours per week relative to those of non-caregivers. They find little effect of caregiving on working men's hours.

A secondary focus has been on the tradeoff between care and leisure time. Descriptive studies have noted that co-resident caregivers spent less time on leisure activities than non-caregivers (Bittman et al. 2004; Michelson and Tepperman 2003). However, modeling efforts that explicitly recognize the tradeoffs between different types of time use question this tenet. For example, Arora and Wolf (2014) have jointly modeled time spent caring, working, and engaged in physical activity for middle aged adults in the Health and Retirement Study with at least one living parent. They found that parent characteristics associated with increased care were not inversely associated with the frequency of physical activity. Further, unobserved factors influencing time transfers to parents and frequency of physical activity were positively correlated across the care and physical activity equations among men, suggesting that these two types of time-allocation decisions appear to be complements rather than substitutes.

A third, and largely separate, literature has focused on the influence of caregiving on wellbeing. Findings are equivocal, with some studies suggesting positive influences and others negative effects on wellbeing. In their comprehensive review, Pinguart and Sorenson (2003) find that studies consistently report higher levels of depressive symptoms and stress and lower levels of self-efficacy and subjective well-being than non-caregivers, although these differences are typically small, and appear to be substantial only in non-representative samples. Nevertheless, female caregivers and older caregivers appear to be more disadvantaged than male caregivers and younger caregivers with regard to most outcomes.

Why such gender differences exist has been a long-standing interest. Early studies drew upon non-representative samples and stylized questions about time spent caring, and concluded that husbands may enjoy the caregiver role more than wives, that they may be more effective in coping with interpersonal problems with their spouse, and that they are more willing to take on the caregiving role in later life (Barusch and Spaid 1989; Fitting et al. 1986; Pruchno and Resch 1989). Amirkhanyan and Wolf (2003) have pointed out that these studies are problematic because they do not distinguish the influence of having a relative with a disability from the effect of providing care to that relative. Freedman and Cornman (2014) raise the additional complexity that such studies also confound *for whom* the activity is done with *what* is done, typically a combination of household chores and personal care tasks.

Moreover, from a time use perspective, studies have relied primarily on evaluative measures of life satisfaction or decontextualized affect measures (how happy are you?) and how they vary with caregiving intensity, typically measured with stylized questions about care given over the last week or month. Despite the fact that individuals may rely on general beliefs about experiences rather than true moment-to-moment experiences in such stylized assessments (Schwarz, Kahneman, and Xu 2009), with few exceptions, experienced wellbeing of older caregivers has not been explored (Bittman et al. 2004; Freedman and Cornman 2014; Poulin et al. 2010) (Bittman et al., 2004; Poulin et al., 2010; Freedman and Cornman, in press).

A recent study (Freedman and Cornman 2014) attempts to fill this gap by using time diary data from a national sample. Using the Disability and Use of Time Supplement to the 2009 Panel Study of Income Dynamics, the authors explore whether spousal caregiving is associated with reduced experienced wellbeing (how happy and how frustrated during a particular activity) for older husbands and wives. They estimate three distinct effects: having a spouse with a

disability; doing household or personal care tasks (“chores”) for someone other than a spouse with a disability; and doing such tasks for a spouse with a disability (“care”). The authors find no significant effect on experienced wellbeing for husbands of having a wife with a disability, doing chores, or caring for a wife with a disability. For wives, they find no significant effect of having a husband with a disability. Yet, for wives, carrying out chores was associated with *lower* experienced wellbeing (happiness in particular) compared to other activities and care to one’s husband was associated with *greater* experienced wellbeing than carrying out the same activities as chores. They conclude that caregiving per se does not erode well being of older spousal caregivers but for women, the chores that often constitute daily care, may do so. **F.**

Future Directions

This chapter has identified several key themes in the literature related to gender, time use, and aging. First, the familiar gendered patterns observed among working-age adults appear to hold in later life: older men devote more time to paid work and enjoy more leisure; older women devote more time to care work. Time disparities in paid work attenuate with transitions from full-time employment to phased or full retirement; however, disparities in care time remain substantial, as older women more than older men transition from intensive mothering to providing care for an elderly spouse.

Second, although older women’s disproportionate care time is associated with economic disadvantages, it may also be associated with social advantages via more companionship in older age and enhanced well-being. Nonetheless, women’s higher life expectancy, and lower probability of repartnering after the death of a spouse, also means the “oldest old” women spend a larger proportion of time in old age in solitary pursuits.

Third, the consequences of providing care to older adults differ by gender. Adult daughters who work and provide care tend to reduce their work hours whereas adult sons are unaffected. Adult children's time for physical activity also seems largely unaffected, irrespective of gender. For wives but not husbands who provide care to a spouse, the act of caring for a spouse with a disability appears to enhance experienced wellbeing, whereas the tasks and activities that commonly constitute care appear to erode it.

Despite these findings, there continue to be important gaps in the literature on gender, time use, and aging that recent high-quality longitudinal data from HRS, PSID, and European panel studies may be helpful in resolving. The cross-sectional nature of research using time diary data means studies are not able to examine specifically how transitions out of or into employment and family roles influence time use in later life stages. Nor are researchers able to disentangle selection factors from causal effects of role statuses and transitions. Indeed, the life course perspective has been notably absent from the small literature on gender, time use, and wellbeing.

For instance, the distinctive marriage, fertility, and household formation patterns of the Baby Boom generation have not yet been assessed in terms of their influence on time use in older adulthood. Although family and household patterns through the life course have been linked to women's and men's work and family roles in midlife, their indirect influence on time use and well-being at older ages has not been explored. Particularly important will be studies that move beyond cross-sectional descriptive patterns to parse out the contribution of selection into various family and work statuses versus actual causal influences.

Similarly, the influence of "diverging destinies" (McLanahan 2004) in earlier life stages on time use and wellbeing in later life has not been fully explored. At least two main pathways

could be at play. First, economic opportunities at earlier ages lead to a lifetime of economic advantage, which in turn is likely to influence decisions about retirement that in turn influence time use, and wellbeing in later life. Second, economic opportunities at earlier ages may influence how men and women structure their time in midlife, which may set time use patterns in motion that in turn enhance or impede their ability to “age well” and “age productively.” Moreover, the interplay among economic opportunity, the unfolding of the disablement process, and time use in later life, and how these processes differ for men and women, also warrants additional attention.

The research on time with others is small, particularly studies that focus on older adults. Future research should examine if, net of employment and marital status, gender differences in social time dissipate or grow as newer cohorts reach older age. Older men who experienced divorce or fathered children outside of a legally recognized relationship may have less social support, more isolation, and also more identity issues because of the loss of “normative roles and relationships status, which usually emphasis masculine autonomy and power” (Venn et al. 2011). The disparate early life experiences of women and men associated with increases in single parent families, nonmarital and multipartner births, and greater life expectancy for older women vis-à-vis older men point to the possibility of more substantial differences in women’s and men’s social time among future older adults.

Additional research is also needed on how family caregiving—across diverse family arrangements—intersects with changing work status of older adults. According to the Bureau of Labor Statistics (Toosi 2013), 55% of men and 72% of women ages 50 to 61 say they may delay retirement because of the great recession. Projections indicate that by 2022, 32% of workers ages 65 to 74 will be in the labor force, compared with 20% in 2002 and 27% in 2012. The

implication of macro-economic shifts for time use and wellbeing at older ages, including care patterns, is an important yet understudied area of investigation.

Finally, we note that that individuals change more rapidly than social institutions, leading to cultural / structural lags that produce “dilemmas” (Riley, Johnson, and Foner 1972; Riley and Riley 1994) For older women and men, these include laws and employment policies that make it more difficult for those who prefer to stay employed to keep jobs and wage and benefit disparities that make it difficult for older workers who would prefer to retire to do so, particular women and older adults with less than a college education. Another key dilemma is the structure of family, market and state-subsidized care work that disproportionately burdens wives and adult daughters with care obligations and disproportionately excludes unmarried and divorced men from family care networks. Addressing the “structural lag” in research on role transitions, sequencing, and synchronicity is a first step in developing a blueprint for solving gendered work and family dilemmas of older adults.

