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Limited Engagements? Women's and Men's Work/Volunteer Time in the Encore Life Course Stage

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Abstract

Americans are living healthier and longer lives, but the shifting age distribution is straining existing and projected social welfare protections for older adults (e.g., Social Security, Medicare). One solution is to delay retirement. Another is an alternative to “total leisure” retirement -- an “encore” stage of paid or unpaid engagement coming after career jobs but before infirmities associated with old age. We draw on gendered life-course themes together with data from the American Time Use Survey (2003–2009) to examine the real time American men and women ages 50–75 apportion to paid work and unpaid volunteer work on an average day, as well as factors predicting their time allocations. We find that while full-time employment declines after the 50s, many Americans allot time to more *limited engagements* – working part time, being self-employed, volunteering, helping out – through and even beyond their 60s. Caring for a child or infirm adult reduces the odds of paid work but not volunteering. While time working for pay declines with age (though more slowly for men than women), time volunteering does not. Older men and women in poor health, without a college degree, with a disability or SSI income are the least likely to be publicly engaged. This social patterning illustrates that while the ideal of an encore of paid or unpaid voluntary, flexible, and meaningful engagement is an emerging reality for some, it appears less attainable for others. This suggests the importance of organizational and public policy innovations offering all Americans a range of encore opportunities.

Keywords

Time Use; Older Workers; Encore; Gendered Life Course; Third Age; Retirement

INTRODUCTION

The 21st century life course is being recast as a result of changes in demography, the economy, and lifestyles. Scholars describe the appearance of two new life stages, a so-called *emerging adulthood* throughout the 20s, where young people are able to experiment with various adult roles (Arnett and Eisenberg 2007; Settersten and Ray 2010), and a so-called *third age* or *encore*, coming after the first age of childhood and the second age of adult career- and family-building, but before the fourth age of infirmities associated with being old. We focus here on the third age, a term first proposed by Peter Laslett (1987) to characterize an encore stage of ongoing engagement in meaningful activities made possible by medical advances and lifestyle changes improving population health and longevity (see also Giljeard and Higgs 2007; Karisto 2007; McCullough and Polak 2007; Moen and Altobelli 2007; Sadler 2006; Silva 2008). It is defined as the bonus years of healthy life expectancy, a period of later adulthood beyond career building, when individuals are free to

pursue meaningful engagement in education, paid work, volunteering for organizations, or other more informal forms of helping out (James and Wink 2007; Laslett 1989; Weiss and Bass 2002).

The encore vision of meaningful engagement contrasts with the conventional view of retirement as a one-way, one-time exit from full-time employment to full-time leisure. Both social welfare and organizational policies (Social Security, Medicare, Medicaid, pensions, retirement packages) were developed in the second half of the 20th century predicated on the “leisure” model of retirement, with some people moving into it at progressively earlier ages. But these policies and practices are increasingly problematic, out of step with the unraveling of the social contract linking seniority with job and retirement security, along with the aging of the population (Rubin 1996; Sweet and Meiksins 2013). Postponing the total leisure of traditional retirement by encouraging those in their 50s and 60s to continue working full time has been proposed as a key strategy to deal with increasingly strained income and health programs (Munnell and Sass 2008). But it is not clear that what Americans in later adulthood want is to postpone exits from their full-time career jobs. We propose that many older Americans are seeking *more limited and flexible forms of public engagement* as encores, such as self- or part-time employment and/or volunteering. However, like emerging adulthood which is available only to those whose parents can support their lengthening transition to adulthood, an emerging encore may only be *selectively available* to certain subgroups of Americans in their 50s, 60s and early 70s.

This study addresses two questions. First, how much time on an average day are Americans ages 50 to 75 actually spending in public engagement (in terms of schooling, working or volunteering), and how does this vary by age and gender? Second, what individual or family factors predict different forms and amounts of public engagement in the encore years? We draw on a gendered life course approach (Elder, Kirkpatrick Johnson, and Crosnoe 2003; Kim and Moen 2002; Moen 2001; Moen and Spencer 2006), along with data from the nationally representative American Time Use Survey (ATUS) to examine the real time older men and women in different age groups allocate to schooling, paid work, and two types of volunteering – formal civic engagement and informal “helping out” of neighbors or friends (for distinctions between these two types of volunteer work see Andersen, Curtis, and Grabb 2006; Musick and Wilson 2008; Wilson and Musick 1997). While there is considerable evidence on the time allocated to housework and caring for children earlier in the life course (e.g., Kending and Bianchi 2008; Wight, Raley, and Bianchi 2008), we know little about how older Americans spend their time.

THE IMPORTANCE OF PUBLIC ENGAGEMENT

We define public engagement as participation in socially-recognized roles involving interacting with and often assisting individuals other than family members. The concept of productive, active aging emphasizes the societal value of paid and volunteer work in the encore years, seeing this age group as highly talented and highly motivated, an untapped source of human capital that can be a key organizational and community resource for promoting the common good (Freedman 2011; Morrow-Howell, Hinterlong, and Sherraden 2001; Rowe and Kahn 1998).

How Americans spend their time during this life phase also matters for their health and well-being. There is considerable research showing the health effects of engagement in paid work (Bird and Rieker 2008; Luoh and Herzog 2002). But stressful job conditions can contribute to health difficulties (Karasek and Theorell 1990), even for older adults who have since retired from their career jobs (Wahrendorf et al. 2012). There is also evidence from studies using longitudinal data showing positive effects of formal volunteering on well-being (Moen

and Fields 2002; Morrow-Howell et al. 2003; Thoits and Hewitt 2001), mental health (Li and Ferraro 2005, 2006), and longevity (Moen, Dempster-McClain, and Williams 1989; Musick, Herzog, and House 1999). More recent longitudinal research reaffirms earlier findings about the positive effects of formal volunteering for older Americans' cognitive and physical health (Thomas 2011) and lower risks of mortality (Thomas 2012). Similarly, Greenfield and Marks (2004) show that volunteering has a protective effect on well-being, providing a sense of purpose in life for older adults without other role-identities (partner, parent, employee), a finding also supported in a recent German study (Pavlova and Silbereisen 2012).

Despite Laslett's (1987, 1989) and others' (Karisto 2007; Lawrence-Lightfoot 2009; Sadler 2006; Silva 2008; Weiss and Bass 2002) optimistic rhetoric about this period being a time of opportunity, it is also defined as a *social problem*. Specifically, two demographic patterns – the sheer numbers of Boomers (born 1946–1964) now moving through their 50s and 60s combined with increased healthy life expectancy – are challenging the fiscal systems undergirding the rising costs of pensions, Social Security, and Medicare (Gendell 2008; Munnell and Sass 2008; Pampel 1998; Shuey and O'Rand 2004). Contemporary older Americans also tend to view these years as problematic because of two conflicting trends around retirement. On the one hand, retirement remains embedded in established but now outdated social and organizational policies and practices that set *retirement* apart from *unemployment* as a work exit that can be planned for, anticipated, and positively defined as a transition to total leisure (Costa 1998; Graebner 1980). On the other hand, given that seniority is no longer accompanied by job security (Kalleberg 2011), older employees often confront unexpected “early” exits through retirement packages, buyouts, and forced layoffs (Appold 2004; Bidewall, Griffin, and Hesketh 2006; Hardy, Hazelrigg, and Quadagno 1996) or else “delayed” retirements because of concerns about financial security (Gendell 2008).

Simultaneously, there has been a legislative push to postpone the exit from paid work. Federal policies, such as those prohibiting mandatory retirement and age discrimination, along with delaying Social Security eligibility, have sought to make continued full-time employment more attractive to or necessary for older adults (Johnson 2009; Munnell and Sass 2008). But different pieces of legislation create mixed messages, further advancing the deinstitutionalization of retirement. For example, pension policies limit employers' ability to move their older employees to part-time or part-year arrangements, and there have been broad reductions in the provision and nature of employer-sponsored pensions and health insurance (Hardy 2011; Hutchens 2007; Shuey and O'Rand 2004).

Given the aging of the population, how those in later adulthood spend their time matters for the sustainability of social welfare programs geared to this age group. If adults in the encore years continue to work for pay, they contribute to the Social Security system rather than drawing from it. And if they engage in activities promoting their health, the costs of medical care (Medicare and Medicaid) will rise at slower rates. Examining the real time invested in market work and volunteering by this age group is thus of pragmatic and policy as well as scientific value, in terms of managing the rising costs of Social Security, pensions, and health care, tapping the talents and skills of Boomers moving away from career jobs, and recognizing patterned disparities in the social inclusion of Americans in the encore years (Bidewall et al. 2006; Ekerdt 2010; Munnell and Sass 2008; OECD 2006; Williamson 2011).

Given the deeply engrained total leisure model of retirement, public engagement in later adulthood is often treated as a matter of personal choice (van Solinge and Henkens 2007), which can lead to blaming unengaged individuals for their lack of productive activity. And yet “choices” about public engagement are constrained by policies and practices that recruit

young people for entry-level positions and “prime age” adults in their 40s and early 50s to fill important leadership roles in organizations. While older adults may want to keep working, start a new career, work less intensively in self-employment or part-time jobs, go back to school, or volunteer on a regular basis, existing institutional arrangements often make it difficult for them to do so. For example, most colleges and universities are designed to train students in the 18–24 age range. And most entry-level jobs assume applicants will be in their 20s and early 30s. Even volunteer opportunities like Teach for America are geared for young or “emerging” adults. As Estes, Mahakian, and Weitz (2001, p. 194) observe, the concept of productive aging “obfuscates what is a macro problem – a society that stigmatizes and ‘throws away’ a particular age segment (and more) of its people – and redefines it as a micro problem of individuals who are aging.”

The encore life stage may therefore reflect a new arena for inequality in the form of *selective social exclusion* of some subgroups of older people from the public activities valued by society. While we cannot establish definitively whether there is or is not a putative “third age” or “encore” stage of the life course, we can examine the real time contemporary Americans approaching or moving through the encore years (50s, 60s, and early 70s) allocate to roles and relationships that extend beyond their family and friendship networks. We can also chart whether such time allocations are socially patterned, in terms being unequally distributed across gender, age-groups, educational levels, and other markers of stratification.

Large segments of the contemporary older workforce are opting to retire from their primary career jobs “early,” irrespective of traditional social norms or federal policies aimed at postponing this status passage (Ekerdt 2004, 2010). Others are finding themselves “retired” unexpectedly, through buyouts and layoffs in the face of a competitive global workforce (Rubin 1996; Sweet and Meiksins 2013; Sweet and Moen 2012; Sweet, Moen, and Meiksins 2007). Some older workers love their jobs and don’t want to retire, putting it off as long as possible (Hedge, Borman, and Lammlein 2006; Johnson 2009). Marc Freedman (2007, 2011) suggests that growing numbers want new, meaningful encores of public service. Still others find they can’t afford to retire, and can’t envision a time when they won’t have to be employed (Burr, Mutchler, and Caro 2007; Johnson 2009; Mermin, Johnson, and Murphy 2007), rendering the encore vision of voluntary meaningful engagement marginal to the realities of their lives. But half of contemporary American men have exited the workforce by age 63, while half of contemporary American women have done so even earlier, by age 61 (Warner, Hayward and Hardy 2010). In the face of enormous pressures from diverse governmental and corporate policy incentives and constraints both to exit *and* to remain in the workforce, we expect considerable heterogeneity in the time spent in paid work in the 50s, 60s, and 70s.

Employment is the dominant but not the only form of public participation. The notion of service, of giving back to one’s community and of helping those less fortunate runs deep in American culture (Musick and Wilson 2008; Wuthnow 1991). Such civic engagement as part of religious or other organizations has provided the glue connecting citizens to their communities, to their cities and states, to particular causes and interest groups, to a vision of the greater good, and to one another (Putnam 2000; Skocpol 2003; Zukin et al. 2006). To what degree are older Americans allocating time on the average day to schooling, paid work, formal volunteering, or informal helping out of others? Conversely, to what extent are certain subgroups of Americans in their 50s, 60s, and early 70s *not* publicly engaged?

We propose that public engagement during these years reflects both *control over* and *constraints narrowing* options of late midlife adults as to how to spend their time. For example, most organizational and governmental policies are designed around full-time

employment or full-time retirement (c.f. Ekerdt 2010; Metlife 2009), with few options in between.

FACTORS ASSOCIATED WITH PUBLIC ENGAGEMENT

Different subgroups of Americans have different opportunities and face different constraints during these transitional years. We draw on three life-course themes – biographical pacing, social location, and linked lives – to promote understanding of who in the encore years is more likely to spend time on an average day in different forms of public engagement.

Biographical Pacing

Biographical pacing refers to the timing and sequencing of roles over the life course, and is directly related to the “problem” of an aging society. Should social and organizational policies encourage older workers to postpone retirement from their career jobs? Or should governments and organizations fashion alternative forms of public engagement as encores?

Biographical pacing also relates to the timing of paid work and unpaid volunteering. Harold Wilensky (1961) theorized that both paid work and volunteering occur in tandem, especially for those with “orderly careers,” such as educated, white men. Alternatively, volunteering may replace paid work in the encore stage, a substitute for the loss of activities and identities associated with career jobs. To see whether those engaged in market work are also more likely to allocate time to volunteer activities on an average day, or whether volunteering occurs instead of, not along with time devoted to paid work, we examine whether working during this age period increases or reduces time spent volunteering and vice versa, recognizing their potentially reciprocal relationship (see also Butrica, Johnson, and Zedlewski 2009; Kahn, McGill, and Bianchi 2011; McNamara and Gonzales 2011; Mutchler, Burr, and Caro 2003).

Social-Locational Contexts

Education, age, gender, race, health and disability are markers of life course inequality (O’Rand and Henretta 1999), facilitating or constraining the public engagement of different subgroups of older Americans. Consider the effects of age. Helga Kruger (2003; see also Biggart and Beamish 2003; Pampel 1998) uses the term *life-course regime* to underscore age-graded institutionalized guidelines that open up or close down opportunities as adults move through the encore years. What is not clear is whether being older *amplifies* or *reduces* subgroup disparities in public engagement. For example, does the time women and men allocate to paid work or volunteering on an average day converge with age? *Cumulative advantage/disadvantage* theory proposes an amplifying process, with those advantaged earlier in life more likely to continue to be advantaged in the encore years (Dannefer 2011; O’Rand 1996; Wilson, Shuey, and Elder 2007). A variant of cumulative advantage/disadvantage proposes heightened disadvantage as a result of an accumulation of adverse risk factors (Ferraro, Shippee, and Schafer 2009).

This is the first time in history that married women are retiring in large numbers, but most come to this age period with lower occupational status than men and a history of intermittent employment (Harrington Meyer and Herd 2007; Pleau 2010; Shuey and O’Rand 2004; Venn, Davidson, and Arber 2011). Men’s traditional breadwinning roles in combination with women’s checkered employment trajectories suggest that more men than women in their 60s spend time working for pay.

Social class is another powerful force linked to opportunities and resources in later adulthood (O’Rand and Henretta 1999), shaping the older adults allocate their time in the encore years. College-educated adults are less likely to retire from full-time employment or

from the workforce altogether than are those with less education (Cahill, Giandrea, and Quinn 2006; Han and Moen 1999; Reitzes and Mutran 2004) and more likely to formally volunteer for an organization (Choi et al. 2007; McNamara and Gonzales 2011). What is not clear is whether having a college education means more time spent on the job or in volunteering.

Race and ethnicity may also shape time use in this encore period, with whites both better positioned in the labor market and having more resources (health, education) than Blacks, Hispanics, or other minority groups (Thomas 1993; Thomas, Herring, and Horton 1994; Willson 2003), favoring greater time in paid work. Prior research (of adults of all ages) shows that whites are more likely than other races/ethnicities to formally volunteer (Brown and Warner 2008; Martin and Soldo 1997; Musick and Wilson 2008); they may also spend more time doing so.

Despite the vision of the encore years as a time of vitality, health difficulties are often attendant with growing older. Poor health and disability are key contingencies pushing people out of paid work (Cahill et al. 2006; Henretta, Chan, and O’Rand 1992; Kim and DeVaney 2005) and limiting volunteering (Choi et al. 2007; McNamara and Gonzales 2011).

These observations lead to our first hypothesis about real time use on an average day.

Hypothesis 1 Individuals ages 50–75 most at risk of a) age-related and other discrimination and b) not being able to meet existing demands of public engagement – women, as well as those who are older, less educated, minority, or in poor health – will be less likely to spend time working or volunteering.

Linked Lives

The life course theme of *linked lives* points to the social embeddedness of individuals in relationships (Elder, Kirkpatrick Johnson, and Crosnoe 2003). This encore period of the life course can involve the end of active parenting and even marriage, as well as assuming care obligations for grandchildren and/or ailing parents or other infirm relatives. Women are more likely to be the care providers for children, grandchildren, and/or infirm relatives (e.g. Arber and Timonen 2012; Chesley and Moen 2006).

The growing numbers of dual-earner couples along with the growing population of older singles (Lin and Brown 2012) underscore the importance of considering both the effects of marital status and couple work status on the patterning of individuals’ time use. Since divorced or widowed women are less likely than men to remarry (Schoen and Standish 2001) and thus must rely on their own incomes (often with little or no pensions and lower amounts of Social Security – see Harrington Meyer and Herd 2007), they may be more likely than married women to engage in paid work. During the 50-to-75 age period, dual-earner couples engage in interdependent processes involving two sets of labor market transitions, “his” and “hers” (Ho and Raymo 2009; Kim and Moen 2001, 2002; Moen et al. 2006; Moen, Kim, and Hofmeister 2001). Spouses tend to aim for joint retirements, though often in gendered ways, with married women molding their retirement plans to those of their husbands (Moen, Sweet, and Swisher 2005). While it has been established that older married women are less likely to work for pay (Warner et al. 2010), it is not clear whether this is also the case for volunteering, or whether it is marriage or their spouses’ employment that predicts the time adults in the encore years spend working or volunteering on an average day. Given traditional gender scripts (Ridgeway and Correll 2004), we propose:

Hypothesis 2 Being married and having a wife who is employed will increase the likelihood of men ages 50–75 allocating time on an average day to paid employment and/or volunteer work.

By contrast,

Hypothesis 3 Third-age women married to employed husbands will be less likely than single women to allot time to paid work on an average day.

Since volunteering (formal civic engagement and informal helping out) also conforms to gender scripts, women – and especially wives – may be equally likely to volunteer regardless of their husbands' employment status. Prior research (Musick and Wilson 2008) suggests that being married should increase formal volunteering for both men and women.

Research suggests that gender norms also complicate the relationship between caregiving responsibilities and the timing of exits from paid work, such that having children at home and/or caring for ailing family members increases the likelihood of men engaging in and spending *more* time in paid work (as breadwinners) while *decreasing* women's tendency to do so (Chesley and Moen 2006; Dentinger and Clarkberg 2002). Men with children at home or caregiving responsibilities may be more likely to delay their exits from full-time work due to their normative provider role, while women have been shown to retire early to take care of ailing spouses (Dentinger and Clarkberg 2002). Evidence suggests that caregivers are more likely than non-caregivers to be volunteers (Burr et al. 2005; Choi et al. 2007; Hank and Stuck 2008), though whether caregiving increases the actual time spent in formal or informal volunteering is unclear. Given prevailing gender norms, we propose that:

Hypothesis 4 Caring for children at home, non-residential grandchildren, parents, partners, or other relatives decreases time women allocate to paid work on an average day, while it increases time women allocate to volunteer activities (both formal civic engagement and informal helping out).

DATA AND PROCEDURES

Drawing on data (2003 through 2009) from the American Time Use Survey (ATUS) linked to the Annual Social and Economic Supplement (ASEC) of the Current Population Survey (CPS), we examine both the likelihood of and the time spent in paid and volunteer work on an average day by men and women ages 50 to 75, including, for comparison, younger (45–49) and older (75–79) respondents. Using binary logistic, ordinary least squares, and zero-truncated negative binomial regression, we estimate: 1) the distribution and heterogeneity of various forms of and time spent in both employment and volunteering by age group and gender, and 2) how social-locational markers (e.g. a college education, health and disability) and social relations (linked lives) predict the likelihood of and time spent in public engagement by women and men moving into or through the encore life stage.

Data

The ATUS is a time diary study of a nationally representative sample of Americans (Abraham et al. 2010). Respondents describe the activities they engaged in over a 24-hour period from 4:00 a.m. of a specified day until 4:00 a.m. of the following day, with different people interviewed every day throughout the year. Reported activities are coded using a coding scheme of over 400 activity categories. The ATUS sample was selected from respondents to the (larger) CPS; one person per household was surveyed. We match ATUS respondents to their earlier participation in the March CPS (six to nine months prior) to include measures of income sources, self-reported health and disability (King et al. 2010). Analysis weights for the subsample are adjusted accordingly (ATUS-X 2010).

Dependent Variables

Our dependent variables capture 1) variables capturing any engagement in paid work and volunteer activities on the ATUS diary day (including the odds of no public engagement), and 2) the actual time older Americans allocate to those activities during the 24-hour diary day. Only 1.2% of our sample spent any time in educational pursuits (Appendix 1 details specific activities included), making it impossible to estimate multivariate models of schooling. *Paid work* includes time spent on work and work-related activities (see Appendix 1) such as working at main or other jobs and performing other income-generating activities on the diary day. *Formal volunteering* captures activities for community organizations, including administrative duties as well as social services such as serving food, collecting and delivering goods, and mentorship (see Appendix 1 for the entire list of codes and activities). *Informal volunteering* (helping out) involves helping non-resident adults (such as neighbors) by doing housework or home repair, providing transportation, and other forms of assistance (see Appendix 1). We differentiate informal volunteering from family caregiving for adults and children since family caregiving is often less voluntary (see also Choi et al. 2007). We define *no public engagement* as neither working for pay nor volunteering nor engaging in educational activities on the diary day.

Independent Variables

We include indicators of the biographical pacing of employment, volunteer work (whether being employed changes the odds of volunteering and vice versa), and educational activities, as well as social-locational context (including health and disability), and linked lives (marital status, spouses' work status, caregiving). *Employment status* indicates whether respondents are working full time, part time, are self-employed, or not working for pay (reference category). We recognize that self-employment can be both full- and part-time. However, we distinguish self-employment from other full-time and part-time employment for an organization because of the prevalence of movement into self-employment during the transition to retirement (Zissimopoulos and Karoly 2007, 2009). Self-employment has been found to be more satisfying than organizational employment because it provides more autonomy, variety, flexibility, and job security (Hundley 2001). *Formal volunteering* is a dichotomous measure that captures civic engagement for an organization and *informal volunteering* is a binary indicator of helping out of non-resident adults (such as neighbors). *Educational activities* capture time spent in schooling or learning.

Social-locational context measures include *gender*, *5-year age groups* (45–49 is the reference), *self-reported health* (representing combined response categories of good, very good, and excellent versus a combined response of fair and poor health), and *disability* (whether respondent reports a health condition that limits or prevents paid work). We include *college degree* (yes/no) as a proxy for social class; we collapsed education categories to create a binary variable because preliminary analyses did not reveal any major differences in time use among those with less than a high school, only a high school degree or some college, or among those with only a college compared to an advanced degree. We also consider economic context in terms of non-wage income sources. Three binary variables indicate respondents' sources of non-wage income, including whether they receive a *pension* or retirement income from a previous employer or union, excluding Social Security and Veterans' Administration payments; *Supplemental Security Income (SSI)* is defined as payments by Federal, State, and local welfare agencies to low income persons regardless of work history who are age 65 or older, blind, or disabled; and *Social Security (SS)* includes Social Security payments (pensions, survivors' benefits, and permanent disability insurance benefits); the reference category for each is none received. Note that identification of disabled as a reason for not working typically attenuates with age, as individuals move into receiving Social Security and begin defining themselves as "retired."

Indicators of social relations capture the “linked lives” shaping involvement in paid and unpaid volunteer work. We combine marital status and spouses’ employment to construct a three-category independent variable, where ‘*not married*’ is the reference category and respondents who are married are distinguished by whether or not their *spouses are employed*. We also include three dichotomous caregiving measures: 1) the presence of *children under 18* in the home (reference is no children under 18); 2) providing *non-resident childcare*; and 3) providing *adult care* for an ailing (household or non-household) adult. Controls not shown on our tables are survey year and day of the week (weekend versus weekday).

Analysis

Our analytic strategy was to first model whether respondents engage in any paid work and unpaid volunteer work on the ATUS diary day, and then estimate the number of minutes that they spend in paid and unpaid volunteer work, conditional on that participation. We chose this modeling strategy rather than a Tobit model or an OLS model with zeros included because we theorize that participation in an activity is a process separate from the amount of time allocated to the activity, which is more consistent with our approach (similar to the two-part model proposed by John Cragg 1971). Unlike many analyses of time diary data where there is almost universal participation (such as parents’ time with children – most parents spend at least some time with their children on an average day, meaning very few zeros in the data and thus a suitable use of OLS models – see Kending and Bianchi 2008; Wight et al. 2008), we are analyzing activities in which for each age group progressively fewer sample members are involved. Our decision is further bolstered by evidence that estimates from two-part models are less biased than estimates from Tobit models in cases such as ours, where there is interest in both the likelihood of engagement and the time spent doing so (Daunfeldt and Hellstrom 2007; Stewart 2009). In addition, models are estimated separately by gender, and this decision is generally supported by model-level Chow tests; we also conduct variable-level Chow tests of gender differences, and report where these tests are statistically significant (see Tables 2 and 3).

RESULTS: ENGAGEMENT PATTERNS BY AGE GROUP AND GENDER

Table 1 describes the incidence of paid work and unpaid volunteer work of men and women in the 50–75 age span, as well as five years pre- and post- these encore or third-age years. The percent of men employed full time drops between ages 55–59 and 60–64, from 57% to 40%. It then drops markedly to 10% for those ages 65–69, underscoring the transitional nature of the 60s. Only 8% of men age 70–74 and even fewer (5%) of those ages 75–79 are employed full time. These trends suggest men’s exits from *full-time* employment follow the conventional model of retirement as occurring in the 60s.

However, significant numbers of men continue more limited engagements of paid work. For example, part-time work is more prevalent among men in their 60s and early 70s (6–11%) than among younger men. Over one in ten (12–14%) men in their 50s and 60s are self-employed, dropping to under 10% among men in their 70s. Some men engage in formal and informal volunteering throughout this age period; by ages 70–74 fully 10% of men are formally volunteering and 9% informally helping out on an average day.

Women’s full-time employment is lower than men’s at all ages; just over 50% of women 45–59 work full time, dropping to 28% for those ages 60–64, and further down to less than 10% for women 65 and older. A relatively stable percentage (>10%) of women in their 40s, 50s, and 60s engage in part-time work, though fewer (<8%) women in their 70s work part time. Self-employment is less common for women than men in the 50–75 range (12+% of men in their 50s and 60s versus <7% of same age women). More women (8.9%) than men

(4.8%) ages 60–64 formally volunteer on an average day; and more women than men in their 50s and early 60s tend to provide informal help to others.

Nearly one quarter or more of men and women in their late 50s through early 70s are active in some form of limited public engagement. This point is key to the encore concept: while full-time employment does indeed decline sharply over this age period, significant numbers *are* participating in some form of public engagement. Turning to real time allocations¹ on an average day, we find that while time in paid work declines with age, time spent volunteering varies between about 1.5 and 2.5 hours per day for men and women 50–75, with no clear age pattern. Full-time employed men spend an average of eight or more hours per day in paid work, except among 70–74 year olds who average 402 minutes (6.7 hours) of full-time work. Men employed part time work 4–6 hours a day, with no pronounced drop off at older ages. Self-employed men ages 45–64 work about eight hours per day, while self-employed men ages 65 and older put in “part-time” hours. Self-employed women work about 6 hours per day through their 60s, dropping to an average of about 3 hours per day among women in their 70s.

Among those who volunteer (either formally or informally), there are few statistically significant gender differences in time allocated to these forms of public engagement on an average day. Men and women volunteering for community organizations spend about 1.5 to 2.5 hours per day doing so; those who informally help out do so for around an hour per day.

RESULTS: PREDICTING PUBLIC ENGAGEMENT

Who Works and Volunteers in their Encore Years?

Table 2 shows results for men and women separately from binary logit models predicting the likelihood of Americans in their 50s, 60s, and 70s being engaged on any given day in paid work, formal volunteering, and informal helping out, as well as the odds of their having no public engagement. An odds ratio greater than 1 means a greater likelihood, while an odds ratio less than 1 means a lower likelihood of time engaged in an activity on an average day, compared to the reference group. We expected to find social patterns in engagement, with women as well as those who are older, in poor health, and less educated less likely to spend time working or volunteering (Hypothesis 1). Considering first age, we find that while working for pay is lower among older men and women, formal volunteering is not. Net of other factors in the model, men ages 65–69 have almost double the odds (1.9) of formally volunteering for civic organizations than men ages 45–49, even as they have lower odds of engaging in paid work (.58) or informally helping out neighbors and friends (.56). Moreover, men in their early seventies are over twice as likely (2.18) to formally volunteer as are those ages 45–49. There are no significant age differences in formal volunteering among women, nor are there age-related patterns in either men’s or women’s informal volunteering.

As expected (Hypothesis 1), good health increases the odds of men and women engaging in paid work (2.24 and 1.54, respectively) and increases women’s odds of formal volunteering by 55%. Having a work-related disability considerably reduces the odds of paid work (.23 for men and .34 for women). However, neither health nor disability is significantly associated with the odds of men formally or informally volunteering. Women in good health are 1.55 times as likely as those in poor health to volunteer for an organization, while having a work disability does not significantly predict women’s formal or informal volunteering.

¹While we reference means in the text, there is considerable variability around the means (see high standard deviations) in the time third agers allocate to paid work and unpaid volunteer work.

Having a college degree increases the odds of both men and women in the encore years spending time in paid work (1.64 and 1.27, respectively), though the effects are stronger for men than women (as indicated by Chow tests). A college education also doubles the odds of men and women formally volunteering. Receiving non-wage income (pension, SSI, Social Security) reduces men's odds of working for pay or volunteering for an organization, but not their informal helping out. Non-wage income also reduces the odds that women work for pay, but not their formal volunteering. Black men have lower odds and Hispanic men have higher odds of paid work compared to white men. Hispanic men have lower odds of formal volunteering than white men, while their race/ethnicity is not associated with women's paid or volunteer work on an average day.

We hypothesized that the ways in which men's and women's lives are linked to those around them affect their public engagement (Hypotheses 2 and 3). In support of Hypothesis 2, married men are more likely to engage in paid work than singles. Compared to single men, those with employed wives have double the odds (2.14) of formally volunteering, as do men with non-employed wives (OR 1.85), suggesting that marriage rather than their wives' employment status promotes men's formal civic engagement. Conversely, men with non-employed wives have about half the odds (.56) of informally helping out neighbors and friends. There are, as expected, reverse effects of husbands' employment for women's paid work (Hypothesis 3). Married women have lower odds of engagement in paid work than unmarried women, while women whose husbands are not employed have higher odds (1.38) of formally volunteering. Chow tests indicate that the effects of having an employed spouse are indeed different in predicting men's and women's paid work and volunteering on an average day.

We anticipated that women with caregiving responsibilities would be less likely to be engaged in paid work but more likely to volunteer (Hypothesis 4). We find that non-residential (grand)child and adult caregiving responsibilities do indeed depress women's engagement in paid work compared to other women (.45 and .65, respectively). And, though not hypothesized, men who care for non-residential children (most likely grandchildren) and/or provide care for ailing relatives also have lower odds engaging in paid work (.61 and .34). Women with children under age 18 in the home have lower odds of working (.68), while having children at home does not predict men's participation in paid work.

Contrary to our expectations, men and women with children at home or with other caregiving responsibilities are not more likely to formally volunteer. However, as hypothesized for women (Hypothesis 4), we find that caring for an infirm adult doubles both men's and women's odds of *informally helping out* friends and neighbors (2.43 and 2.18, respectively). By contrast, having children at home is negatively associated with the odds that men (.68) and women (.71) informally help out neighbors and friends on any given day.

There appears to be a trade-off between full-time employment and formal volunteering. Full-time workers have lower odds of formally volunteering (.54 for men, .68 for women). By contrast, part-time work and self-employment have no significant association with either formally volunteering or informally helping out for women or men.

While engagement in full-time employment is a story of declining participation with age, men's formal volunteer work follows a different life course rhythm. Specifically, we find *higher* odds of men in their late 60s and early 70s formally volunteering (compared to men ages 45–49). By contrast, we find no evidence of women's formal volunteering changing with age. Nor do we find clearly patterned age differences in informal volunteering for either women or men.

Who is Excluded from Public Engagement?

Thus far we have examined engagement in different types of public activities; we now analyze who does *not* participate in schooling, paid work, or volunteering. As expected (Hypothesis 1), we find that age is associated with higher odds of non-engagement for encore men and women compared to those 45–49. A college degree and good health are protective against non-engagement, while having a work disability quadruples (4.03) the odds of men's, and triples (3.15) the odds of women's, non-engagement. Black men and Hispanic women are less likely to be publicly engaged. For women, being married and having children or grandchildren under 18 in the home limits engagement, while men who are married with employed wives have higher odds of public engagement (1.64). Overall, the patterns of non-engagement do indeed follow the fault lines of gender, health, race/ethnicity and social class, reinforcing the notion that public engagement is not be equally distributed across the older adult population.

RESULTS: PREDICTING TIME SPENT WORKING AND VOLUNTEERING

Table 3 shows multivariate estimates of minutes spent in paid work and unpaid volunteer work on the ATUS diary day among men and women engaging in them. OLS models are specified except for the case of women's informal volunteering where we show marginal effects from zero-truncated negative binomial models.² We theorized (Hypothesis 1) and find that those older Americans who are publicly engaged allocate *progressively less time* with age to paid work compared to those ages 45–49. Men (ages 45–49) spend about 6.5 hours per day in paid work; men still working for pay in their late 60s and 70s spend nearly two hours less per day, net of other controls in the model. Working women in their 70s spend about 90 fewer minutes on the job (see Table 3B) than do working women in their late 40s.

Hypothesis 1, predicting less public engagement at older ages, does not hold for time spent in either formal or informal volunteering. But negative associations between time spent in paid work and time volunteering suggest trade-offs between these forms of engagement. Men spend less time volunteering if they are also doing any work for pay – whether full-time, part-time or self-employed. For example, self-employed men spend two hours less volunteering for a civic organization than those who do not work for pay. For women, only full-time work is associated with less time volunteering (46 minutes). Similarly, employed men and women who formally volunteer or informally “help out” spend at least an hour less working for pay (56 and 75 minutes less for men and 87 and 86 minutes less for women, respectively).

Despite their greater tendency to work for pay, men college graduates in this life stage spend less time in paid work, on average, compared to those with less education. Women in good health spend nearly an hour more formally volunteering per day compared to women in poor health, while men volunteers with a disability tend to put in roughly 1.5 hours less formally volunteering. Disability status does not predict the time women in later adulthood allocate to

²The OLS model for women's informal volunteering fit poorly ($F=1.08$, $df=32$). For this reason, we estimated a zero-truncated negative binomial model (ZTNB), which provided an acceptable fit to the data. To interpret the results, we show the marginal effects and accompanying standard errors that were generated using the Stata `mfx` command. We also fit ZTNB models for each dependent variable to address possible effects of over dispersion, finding that differences compared to OLS estimates were minimal and that OLS estimates were generally conservative. To examine whether the coefficient estimates were sensitive to potential outliers, we estimated each OLS and ZTNB model with dependent variables Winsorized at the 90th, 95th and 99th percentiles, where values above the 90th, 95th and 99th percentiles on the dependent variables are re-assigned to the values associated with those percentiles, respectively (Dixon and Yuen 1974). The results presented are qualitatively similar when we include the extreme values, suggesting that the relationships we observe are not the result of outliers.

volunteering for an organization or helping out others. Hispanic women who volunteer for a community organization spend 52 minutes more doing so than White women volunteers.

Family relations are a major source of gender differences in the time older adults allocate to paid work and formal volunteering. Being married limits the time women but not men apportion to paid work and formal volunteering (supporting Hypotheses 2 and 3). Working wives of working husbands spend about a half hour less per day on the job than do unmarried working women. Married women volunteers with non-working husbands spend less time formally volunteering than unmarried women (40 minutes less). Caregiving responsibilities are negatively associated with time spent in paid work for men and women in this age group (Hypothesis 4 predicted this only for women), ranging from 25 fewer minutes for working men and women who have children under 18 in the home to about one hour less for workers who are caregivers for an infirm adult or else a non-resident (grand) child (see Table 3).

CONCLUSIONS

Recall that we began by describing two new stages of the 21st century of the life course, an emerging adulthood lasting to age 30, and an emerging third age or encore stage roughly between ages 50 and 75. While the life stage of emerging adulthood has captured the imagination of many, leading to concrete policy developments (such as permitting children to remain covered by their parents' health insurance through their mid-20s), policy responses to the encore life stage are less clearly articulated.

Employers, policy-makers, and older workers have operated under the assumption that retirement from career jobs signals the cessation of public engagement and a turn to full-time leisure. Is the aging of the population – as a result of medical advances promoting life expectancy, lower fertility, and the aging of the large Boomer cohort – a social problem straining both health and welfare programs and policies, or does it portend a new life stage of encore public engagement? One alternative is to simply delay exits from career jobs by postponing ages of eligibility to Social Security or Medicare. Another involves the facilitating of this new stage of the life course, tapping the talents and experiences of adults in their 50s, 60s, and 70s in innovative types of encore employment, training, and volunteer service as a way of tackling societal issues, containing health care and Social Security costs, and promoting the health and well-being of those in this age group.

This study makes four contributions to understanding the challenges of an aging workforce and growing “retired” force, including the possibility of an encore life stage. First, our findings underscore this phase of the life course as a time of transition out of paid work. Prior to the third age or encore years, 86% of American men and 76% of American women (ages 45–49) in the ATUS are working for pay (Table 1). Beyond the third-age or encore years (at ages 75–79), fully 83% of men and 95% of women do not work, with 78% of men and 88% of women in their late 70s saying they are “retired.”

Second, these transitional years are also a time of ongoing public engagement. Our evidence is that a significant portion of Americans in their 50s, 60s, and early 70s are allocating time to some form of limited engagement in paid work or unpaid volunteering, although few are spending time in educational activities. If something of a tipping point occurs when half the members of a group are not spending time in an activity, the tipping age away from full-time work occurs remarkably early – on average at age 59 for men and age 55 for women. However, the tipping point of less than 50% of any combination of various forms of public engagement occurs at age 65 for both men and women, fully seven and ten years later, respectively, than the tipping point away from full-time employment (results not shown).

There are no precipitous drops; significant proportions of those in their 60s and early 70s remain involved in some public activity on an average day. And there is a notable narrowing of the gap between men's and women's public engagement across these years, especially in the absence of full-time work. The ability to capture differences in various forms of public engagement (both likelihood and amount of time) for men and women at different points in the third-age or encore years at the beginning of the 21st century is a real strength of the ATUS data.

Third, we observe considerable variability in public engagement among those in the 50–75 age range, depending in large part on their ages and gender, as well as whether they have the resources of a college degree and good health. Our evidence supports Hypothesis 1, that individuals more at risk of not being able to meet the demands of, or else not having easy access to, desirable forms of engagement – those who are older, in poorer health, and less educated – tend to spend less time publicly engaged, especially in full-time work. Cumulative advantage theory suggests (and we find) disparities in public engagement along the fault lines of gender and education. For example, the tipping age away from full-time employment occurs at age 60 among college-educated men versus age 59 for men without a college degree. For college-educated women, the tipping age from full-time employment is 60, while it is age 55 for women without a college degree. In terms of not allocating time to any form of public participation, declines are evident for college-educated men and women beginning in the early 70s; for those without college degrees, declines occur much earlier, in the mid-60s. However, a college degree and good health matter more for whether older adults participate in paid work than for the time they spend doing so, and even those with a health limitation are likely to help out others. But note that disability status and poor health do not reduce the odds of men in this age group volunteering for an organization, or the odds of men and women informally helping out friends and neighbors. It could be that older men are engaged in organizations such as veterans' groups where poor health and disability are normative and may not serve as barriers to involvement, something worth investigating in the future.

Fourth, our chronicling of different real time engagement patterns for men and women in this stage of the life course illuminates the gendered ways in which family roles and relationships continue to motivate and constrain public engagement. We anticipated this would be the case for women caregivers, but find that men's as well as women's time in public engagement depends on the nature of their ties with spouses, (grand)children, and infirm relatives. Marital status and, to a lesser extent, caregiving responsibilities, are important sources of variation in men's and women's time in public engagement. Being married generally decreases women's engagement in and time allocated to paid work, while marriage tends to promote men's participation in formal volunteering. Caregiving is negatively associated with participation in and time spent in paid work. While having co-resident children (or grandchildren) is negatively associated with informal helping out, other types of care activities promote it.

As hypothesized (Hypotheses 2 and 3), having an employed wife and being married increases the likelihood that men in this age group are engaged in working and formally volunteering, while marriage reduces the odds that women work for pay. Providing care to an infirm adult or to non-resident children reduces the time spent in paid work and, for men, in formal volunteering.

Limitations

There are, of course, important limitations to this investigation. Our estimates of engagement in unpaid volunteer work are conservative, since we only know whether and how much respondents volunteer on the ATUS diary day. Real time participation in paid

work and unpaid volunteering on the ATUS diary day are lower than rates based on questions with longer reference periods. For example, while 34% of men age 65–69 in our sample are employed, only 22% report engaging in paid work on the ATUS diary day. Similarly, according to the 2005 CPS, fully one-third of Americans ages 45–54 report formally volunteering over the last year, as do 30% of people ages 55–64 and one-quarter of those 65 and older (White 2006). By contrast, only about 10% of men and women ages 65–74 report volunteering on the ATUS diary day (see Table 1).

To really capture the dynamics of public engagement requires longitudinal data on individuals over time. The absence of work and volunteer histories is a real handicap, meaning we can't capture continuity and change in participation over a week, a month, a year, or over the life course.

We also face the confounding of age and cohort. Nearly all of the respondents in their 50s (94%) and a third in their early sixties are Boomers, born between 1946 and 1964. Thus, some of the age-related differences (such as educational attainment) reflect cohort differences; others (such as health and receiving Social Security) reflect the effects of biological aging and social policy regulations. We are unable with the data at hand to separate cohort differences from age differences in public engagement.

A key limitation: we cannot show the degree to which older Americans' time allocations are voluntary or involuntary, whether their time in paid work is in their long-term jobs or new encores, or whether there is a portion of the non-engaged wishing to devote at least some time to some form of publicly engagement. We presume that time spent in self-employment, formal volunteering and informal helping out occur more by choice than is the case for paid employment, though the motivations for pursuing less than full-time engagement are worth further investigation.

But these data do show disparities in engagement that suggest processes of constraint as well as choice. There may be more people in this age group wanting to remain engaged than actually figure out ways of doing so, given age discrimination and labor market rigidities in terms of the absence of institutionalized part-time or flexible alternatives to full-time employment (Blau and Shvydko 2011). Earlier studies have documented a strong desire by older Americans to contribute to the larger social fabric whether through paid or unpaid work (Metlife 2008). For example, a survey by the Pew Research Center (2007) finds that 77% of current workers expect to work for pay after retirement, while only 12% of current retirees are actually doing so. Why is there such disparity between what people expect and their ability to achieve it? From this perspective, the "social problem" may not be the aging of the population, but, rather, the absence of institutionalized means of fostering older Americans' participation in meaningful activities, whether paid or unpaid.

Future Directions for Policy and Research

This study has important implications for *reframing* taken-for-granted schema in research and policy development related to age-graded participation in schooling, as well as paid and volunteer work. It points to the value of both studying and fashioning alternatives to the traditional Hobbesian choice around retirement: either continued full-time employment in one's career job or else the full-time leisure of retirement. We show a sizable proportion of contemporary Americans in this age group are spending their time in limited engagements of paid or unpaid work, *not* extending their years of full-time employment or moving to full-time retirement. But the bonus years of health and vitality producing an emerging encore life stage can only promote public engagement if those in this age group can find training options and jobs, paid and unpaid, that are flexible and reduced in time commitments –

opportunities that have yet to be institutionalized and legitimized in either government or corporate policies and practices (Blau and Shvydko 2011).

With the aging of the large Boomer cohort, life paths and opportunities in the encore life stage will increasingly constitute a provocative and fertile agenda for research and policy. Disparities in social inclusion by gender, class and age – as well as other social markers – are key issues to be addressed. In light of current policies and practices, the promise of an encore of paid and/or unpaid work may only be realized for those with a college degree, good health, and without family-care obligations.

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Appendix

Appendix 1

Activities included in Paid Work, Formal Volunteering, Informal Volunteering: ATUS-X Codes and Labels

Code	Label
<i>Paid Work</i>	
050000	Work and Work-Related Activities

Code	Label
050100	Working
050101	Work, main job
050102	Work, other job(s)
050103	Security procedures related to work
050104	Waiting associated with working (2004+)
050199	Working, n.e.c.
050200	Work-Related Activities
050201	Socializing, relaxing, and leisure as part of job
050202	Eating and drinking as part of job
050203	Sports and exercise as part of job
050204	Security procedures as part of job
050205	Waiting associated with work-related activities (2004+)
050299	Work-related activities, n.e.c.
050300	Other Income-Generating Activities
050301	Income-generating hobbies, crafts, and food
050302	Income-generating performances
050303	Income-generating services
050304	Income-generating rental property activities
050305	Waiting associated with other income-generating activities (2004+)
050399	Other income-generating activities, n.e.c.
059900	Work and Work-Related Activities, n.e.c.
059999	Work and work-related activities, n.e.c.
<i>Educational Activities</i>	
060000	Education
060100	Taking Class
060101	Taking class for degree, certification, or licensure
060102	Taking class for personal interest
060103	Waiting associated with taking classes
060104	Security procedures related to taking classes
060199	Taking class, n.e.c.
060200	Extracurricular School Activities (except sports)
060201	Extracurricular club activities
060202	Extracurricular music and performance activities
060203	Extracurricular student government activities
060204	Waiting associated with extracurricular activities (2004+)
060299	Education-related extracurricular activities, n.e.c.
060300	Research or Homework
060301	Research or homework for class (for degree, certification, or licensure)
060302	Research or homework for class (for personal interest)

Code	Label
060303	Waiting associated with research or homework
060399	Research or homework, n.e.c.
060400	Registration or Administrative Activities
060401	Administrative activities: class for degree, certification, or licensure
060402	Administrative activities: class for personal interest
060403	Waiting associated with administrative activities (education)
060499	Administrative for education, n.e.c.
069900	Education, n.e.c.
069999	Education, n.e.c.
Formal Volunteering	
150000	Volunteer Activities
150100	Administrative and Support Activities
150101	Computer use
150102	Organizing and preparing
150103	Reading
150104	Telephone calls (except hotline counseling)
150105	Writing
150106	Fundraising
150199	Administrative and support activities, n.e.c.
150200	Social Service and Care Activities (except medical)
150201	Food preparation, presentation, clean-up
150202	Collecting and delivering clothing and other goods
150203	Providing care
150204	Teaching, leading, counseling, mentoring
150299	Social service and care activities, n.e.c.
150300	Indoor and Outdoor Maintenance, Building, and Clean-Up Activities
150301	Building houses, wildlife sites, and other structures
150302	Indoor and outdoor maintenance, repair, and clean-up
150399	Indoor and outdoor maintenance, building, and clean-up activities, n.e.c.
150400	Participating in Performance and Cultural Activities
150401	Performing
150402	Serving at volunteer events and cultural activities
150499	Participating in performance and cultural activities, n.e.c.
150500	Attending Meetings, Conferences, and Training
150501	Attending meetings, conferences, and training
150599	Attending meetings, conferences, and training, n.e.c.
150600	Public Health and Safety Activities
150601	Public health activities
150602	Public safety activities

Code	Label
150699	Public health and safety activities, n.e.c.
150700	Waiting Associated with Volunteer Activities
150701	Waiting associated with volunteer activities (2004+)
150799	Waiting associated with volunteer activities, n.e.c. (2004+)
150800	Security Procedures Related to Volunteer Activities
150801	Security procedures related to volunteer activities (2007+)
150899	Security procedures related to volunteer activities, n.e.c. (2007+)
159900	Volunteer Activities, n.e.c.
159999	Volunteer activities, n.e.c.
<i>Informal Volunteering</i>	
040000	Caring for and Helping Non-Household Members
040500	Helping Non-Household Adults
040501	Housework, cooking, and shopping assistance for non-household adults
040502	House and lawn maintenance and repair assistance for non-household adults
040503	Animal and pet care assistance for non-household adults
040504	Vehicle and appliance maintenance or repair assistance for non-household adults
040505	Financial management assistance for non-household adults
040506	Household management and paperwork assistance for non-household adults
040507	Picking up or dropping off non-household adult
040508	Waiting associated with helping non-household adults
040599	Helping non-household adults, n.e.c.

Source : www.atusdata.org

Table 1

Means/Percentages of Selected Characteristics by Age Group and Gender, ATUS 2003–2009

	A. Men (N=5847)										B. Women (N=7491)									
	Pre-Third		Third Age: 50-75		Post-Third		Pre-Third		Third Age: 50-75		Post-Third		Pre-Third		Third Age: 50-75		Post-Third			
	Mean/%	Mean/%	Mean/%	Mean/%	Mean/%	Mean/%	Mean/%	Mean/%	Mean/%	Mean/%	Mean/%	Mean/%	Mean/%	Mean/%	Mean/%	Mean/%	Mean/%	Mean/%		
Biographical Pacing																				
Employment Status																				
Full Time	67.98	66.44	56.96	39.36	10.06	8.11	5.41	54.40*	53.05*	44.46*	28.44*	9.89	3.66*	1.10*						
Minutes in Paid Work ² (sd)	500.67 (172.63)	496.05 (186.22)	494.06 (172.54)	500.68 (184.63)	484.93 (169.87)	402.05 (216.27)	523.92 (101.14)	461.43* (148.50)	454.99* (178.76)	455.89* (167.32)	462.33* (171.91)	458.11 (150.87)	456.50 (151.62)	454.82* (59.71)						
Part Time	3.48	2.88	4.65	5.90	11.48	7.11	6.57	13.15*	14.45*	12.85*	12.43*	11.32	7.66	2.38*						
Minutes in Paid Work ² (sd)	369.60 (166.73)	387.34 (168.96)	383.93 (162.52)	358.28 (164.27)	295.55 (192.81)	280.74 (105.22)	289.65 (136.88)	368.00 (169.65)	359.78 (148.12)	346.89 (161.44)	322.57 (153.16)	294.07 (152.63)	275.97 (134.63)	304.71 (104.22)						
Self Employed	14.21	12.20	13.96	13.03	11.73	7.73	5.12	8.06*	6.39*	6.55*	6.70*	4.05*	2.20*	1.77*						
Minutes in Paid Work ² (sd)	515.75 (227.03)	504.13 (211.13)	491.63 (181.09)	466.58 (240.86)	340.35 (215.84)	394.66 (194.35)	205.50 (143.30)	398.54* (226.66)	422.38* (251.21)	363.88* (214.94)	345.65* (242.21)	355.93 (323.24)	176.43* (121.91)	195.53 (196.23)						
Not Employed	14.33	18.49	24.43	41.72	66.73	77.06	82.90	24.40*	26.11*	36.14*	52.43*	74.74*	86.48*	94.75*						
NILF: Retired ¹	0.00	2.18	8.76	24.81	53.82	69.52	78.03	0.00	4.02*	9.90	34.17*	60.59*	78.40*	87.52*						
NILF: Disabled ¹	6.49	8.78	8.87	10.58	6.41	2.66	1.77	6.62	8.08	11.58	7.56*	5.59	3.76	2.28						
NILF: Other ¹	7.84	7.53	6.80	6.33	6.50	4.87	3.10	17.78*	14.00*	14.66*	10.70*	8.57	4.32	4.94						
% Any Paid Work on Diary Day	61.94	61.14	54.46	43.55	22.90	19.15	10.55	52.05*	50.69*	40.89*	34.71*	16.65*	10.28*	3.35*						
Minutes in Paid Work ² (sd)	497.55 (186.35)	490.24 (196.53)	481.50 (180.73)	468.65 (209.06)	380.81 (213.42)	341.06 (196.44)	337.55 (189.25)	435.75* (169.21)	433.70* (186.59)	420.75* (182.81)	405.08* (195.52)	372.67 (206.85)	312.51 (177.75)	298.88 (164.32)						
Volunteer Work																				
Formal (Yes)	6.74	6.16	7.09	4.84	9.33	10.28	7.71	7.24	8.24	6.95	8.91*	7.63	9.48	10.33						
Minutes Formally Volunteered ² (sd)	157.39 (167.93)	142.24 (125.09)	87.31 (77.71)	168.73 (161.57)	135.54 (141.99)	163.96 (149.19)	169.98 (150.24)	103.22* (117.97)	133.70 (159.74)	98.70 (92.90)	130.44 (111.38)	117.28 (107.81)	134.41 (130.02)	140.13 (126.31)						
Informal (Yes)	7.98	7.48	7.14	7.08	6.86	9.37	5.40	7.95	12.14*	10.37*	10.94*	9.64	8.38	8.91*						
Minutes Informally Volunteered ² (sd)	82.99 (122.35)	77.77 (97.26)	68.03 (101.42)	44.67 (64.05)	72.94 (88.03)	68.82 (104.41)	71.22 (93.26)	49.81* (89.35)	37.65* (64.97)	56.30 (96.90)	52.38 (74.78)	44.49 (96.89)	41.13 (68.40)	43.41 (84.18)						
Educational Activities (Yes)	0.96	1.29	1.13	0.33	0.64	0.82	0.30	1.85	1.67	1.94	1.18	1.46	1.38	0.68						
Minutes in Educational Activities ² (sd)	221.82 (218.23)	144.86 (125.23)	116.70 (89.63)	174.71 (220.80)	131.11 (110.08)	61.09 (16.18)	159.71 (261.40)	184.72 (147.63)	175.94 (157.06)	159.29 (126.85)	82.90 (55.36)	124.60 (106.07)	59.93 (53.66)	96.29 (63.85)						
Any Public Engagement ³	87.79	83.12	78.62	64.23	44.06	38.27	27.42	79.47*	79.08*	68.93*	59.09*	38.50*	27.94*	22.62						
Any Less Than Full-Time Public Engagement ⁴	19.81	16.68	21.67	24.88	34.00	30.16	22.02	25.07*	26.03*	24.47	30.64*	28.61*	24.28*	21.51						
No Public Engagement ⁵	11.65	16.60	20.84	35.71	55.61	61.49	72.31	19.84*	20.36*	30.82*	40.25	60.38	70.98*	77.00						

	A. Men (N=5847)					B. Women (N=7491)								
	Third Age: 50-75					Third Age: 50-75								
	Pre-Third	Post-Third	Pre-Third	Post-Third	Post-Third	Pre-Third	Post-Third	Pre-Third	Post-Third	Post-Third				
	45-49	50-54	55-59	60-64	65-69	70-74	75-79	45-49	50-54	55-59	60-64	65-69	70-74	75-79
	Mean/%	Mean/%	Mean/%	Mean/%	Mean/%	Mean/%	Mean/%	Mean/%	Mean/%	Mean/%	Mean/%	Mean/%	Mean/%	Mean/%
Social Location														
Health														
Self-Reported Good/Excellent (CPS)	88.88	84.96	82.99	75.68	72.78	73.65	70.35	87.83	85.56	79.98	80.46*	75.76	72.08	68.74
Work Disability (Yes)	8.43	10.27	12.57	19.25	16.65	17.09	18.53	7.85	10.98	13.99	15.28 [†]	18.53	17.53	25.34*
Social Class														
College Degree (Yes)	31.26	31.30	32.68	34.15	29.41	29.63	26.14	30.71	32.20	27.67*	25.03*	18.82*	14.85*	18.20*
Race														
White	73.70	75.18	77.38	81.63	79.45	82.13	82.97	70.44	74.57	76.57	78.91	79.76	83.20	81.13
Black	11.39	12.03	10.19	10.19	10.15	9.78	7.30	14.46 [†]	13.17	12.61	9.30	10.73	9.27	11.00*
Hispanic	11.28	8.08	8.62	6.21	6.75	4.52	7.98	10.58	7.90	6.90	8.03	6.66	6.44	4.64 [†]
Other	3.63	4.71	3.81	1.97	3.65	3.57	1.75	4.52	4.35	3.93	3.76*	2.86	1.09	3.23
Non-Wage Income Sources (CPS)														
Retirement (Pension)	1.40	3.44	11.55	25.32	39.47	43.43	46.51	1.14	2.14	7.03*	15.61*	24.22*	24.06*	30.01*
SSI	3.14	1.96	1.67	2.90	1.26	0.88	1.09	2.29	2.54	2.61	3.90	3.43*	2.45*	4.40*
SS	3.21	5.08	7.91	25.47	80.56	89.32	93.98	3.02	5.94	8.06	28.59	77.49	90.53	91.47
Linked Lives														
Marital Status-Spouse's Employment														
Married, Spouse Employed	48.45	48.34	50.43	39.69	26.21	13.74	10.68	57.66*	56.48*	46.17	31.53*	16.85*	10.13	3.50*
Married, Spouse Not Employed	20.61	22.31	24.64	35.29	51.07	59.13	56.90	10.80*	11.41*	20.66	32.33	39.95*	44.18*	38.22*
Not married	30.95	29.36	24.93	25.03	22.72	27.13	32.42	31.54	32.10	33.17*	36.14*	43.20*	45.69*	58.28*
Children under 18 in the Home (Yes)	49.24	28.90	14.20	8.12	4.25	4.56	5.13	43.96*	24.02*	12.41	7.15	5.02	3.93	2.40 [†]
Non-Resident Child Care (Yes)	3.69	3.82	4.00	4.20	4.73	3.94	2.46	5.83*	8.09*	7.84*	12.12*	11.78*	7.98*	4.15
Adult Care (Yes)	2.46	1.89	2.97	3.11	3.66	1.67	3.43	3.91	6.30*	4.75	7.57*	5.82	5.50*	6.65 [†]
N of Observations	1363	1194	1002	827	591	470	400	1561	1414	1191	1120	795	710	700

[†]Source: Authors' calculations using the 2003-2009 American Time Use Survey (ATUS).

¹Of the entire sample.

²Of those who engaged in the activity.

- ³ Public engagement here includes paid work, unpaid formal and informal volunteering, and educational activities.
- ⁴ Less than full-time engagement here includes part-time and self-employment, formal and informal volunteering, and educational activities.
- ⁵ No public engagement here means no engagement in paid work, formal or informal volunteering, or educational activities.
- * Age-specific t-test of mean/% for women compared to men significant ($p < .05$).
- ⁺ Age-specific t-test of mean/% for women compared to men significant ($p < .10$).
- Notes : Means are weighted; sample sizes are not. Standard deviations in parentheses.

Table 2

Odds Ratios and Log Odds from Binary Logit Models: Paid Work, Formal Volunteering, Informal Volunteering, and No Public Engagement by Gender, ATUS 2003–2009

	A. Men						B. Women									
	Paid Work ^{1,2}		Formal Volunteering		Informal Volunteering		Paid Work		Formal Volunteering		Informal Volunteering		No Public Engagement			
	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR		
Biographical Pacing																
Third Age																
50-54	1.02	0.02	0.95	-0.05	0.88	-0.13	1.46	0.38*	0.96	-0.04	1.16	0.15	1.42	0.35*	1.03	0.03
55-59	0.81	-0.21	1.08	0.08	0.75	-0.29	1.73	0.55***	0.64	-0.45***	0.99	-0.01	1.11	0.10	1.75	0.56***
60-64	0.77	-0.26	0.71	-0.34	0.70	-0.36	2.41	0.88***	0.64	-0.45***	1.21	0.19	0.94	-0.06	2.13	0.75***
65-69	0.58	-0.54*	1.90	0.64*	0.56	-0.59*	2.65	0.97***	0.40	-0.91***	0.99	-0.01	0.67	-0.40	3.31	1.20***
70-74	0.52	-0.65*	2.18	0.78*	0.82	-0.19	3.02	1.10***	0.28	-1.27***	1.30	0.26	0.55	-0.61*	4.81	1.57***
Post-Third Age																
75-79 ^W	0.30	-1.21***	1.84	0.61	0.44	-0.82*	4.33	1.46***	0.08	-2.53***	1.49	0.40	0.58	-0.54	6.51	1.87***
Employment Status																
Full Time																
			0.54	-0.61**	0.77	-0.26					0.68	-0.39*	0.79	-0.24		
Part Time																
			0.73	-0.31	1.48	0.39					0.95	-0.05	1.02	0.02		
Self Employed																
			0.73	-0.31	0.72	-0.33					1.12	0.11	1.01	0.01		
Volunteer Work																
			0.75	-0.29		0.47*					0.92	-0.08		0.36		
Formal (Yes)																
			0.54	-0.61***	1.59	0.46					0.68	-0.39**	1.42	0.35		
Informal (Yes)																
			0.70	-0.36	0.49	-0.72					0.52	-0.65	1.01	0.01		
Educational Activities (Yes)																
			0.70	-0.36	0.49	-0.72					0.52	-0.65	1.01	0.01		
Social Location																
Health																
Good/Excellent (CPS)																
			2.24	0.81***	0.93	-0.07	1.20	1.20	0.18	0.43**	1.55	0.44*	1.18	0.16	0.51	-0.67***
Work Disability (Yes)																
			0.23	-1.49***	0.62	-0.47	1.10	1.39***	0.34	-1.08***	0.84	-0.18	0.86	-0.15	3.15	1.15***
Social Class																
College Degree (Yes) ^W																
			1.64	0.49***	2.38	0.87***	1.02	-0.53***	1.27	0.24**	1.96	0.67***	1.17	0.16	0.61	-0.49***
Race																
Black ^N																
			0.72	-0.33**	0.73	-0.31	0.92	0.39**	0.91	-0.09	0.96	-0.04	0.80	-0.22	1.03	0.03
Hispanic ^W																
			1.31	0.27*	0.52	-0.66*	0.78	0.09	0.84	-0.18	0.68	-0.38	0.77	-0.27	1.59	0.46***
Other																
			1.12	0.11	0.61	-0.49	1.27	0.00	1.18	0.16	0.88	-0.13	0.61	-0.50	1.07	0.07

	A. Men						B. Women									
	Paid Work ^{1,2}		Formal Volunteering		Informal Volunteering		No Public Engagement ^{1,2}		Paid Work		Formal Volunteering		Informal Volunteering		No Public Engagement	
	OR		OR		OR		OR		OR		OR		OR		OR	
Non-Wage Income Sources																
Retirement (Pension) ^N	0.40	-0.92***	0.98	-0.02	1.15	0.14	2.37	0.86***	0.56	-0.57***	1.11	0.10	1.23	0.20	1.58	0.46***
SSI	0.20	-1.61**	0.19	-1.66**	0.33	-1.10	5.72	1.74***	0.20	-1.60**	0.71	-0.34	0.46	-0.78*	4.09	1.41***
SS ^{F,N}	0.26	-1.33***	0.54	-0.62*	1.24	0.21	3.69	1.31***	0.28	-1.26***	1.08	0.08	1.34	0.30	2.15	0.76***
Linked Lives																
Marital Status-Spouse's Employment																
Married, Spouse Employed <i>W,F,N</i>	1.23	0.21	2.14	0.76***	1.00	0.00	0.61	-0.49***	0.65	-0.43***	1.30	0.26	0.79	-0.23	1.28	0.25**
Married, Spouse Not Employed <i>W,L,N</i>	0.86	-0.15	1.85	0.62**	0.56	-0.59***	1.03	0.03	0.48	-0.72	1.38	0.32*	0.97	-0.03	1.89	0.64***
Children under 18 in the Home (Yes) <i>W,N</i>	1.06	0.06	1.28	0.25	0.68	-0.38*	0.90	-0.11	0.68	-0.39***	1.13	0.13	0.71	-0.34*	1.54	0.43***
Non-Resident Child Care (Yes)	0.61	-0.49*	1.32	0.28	1.22	0.20	1.41	0.34	0.45	-0.81	1.38	0.32	1.62	0.48**	1.11	0.11
Adult Care (Yes)	0.34	-1.07***	1.02	0.02	2.43	0.89**	1.07	0.07	0.65	-0.43*	1.01	0.01	2.18	0.78***	1.11	0.10
Constant		-1.29***		-2.89***		-1.73***		-1.85***		-0.97***		-3.17***		-2.15***		-1.27***

Model Fit	
F-test/Likelihood Ratio Chi-square	31.04***
df	30 / 32
Total observations	5847

Source: Authors' calculations using the 2003–2009 American Time Use Survey (ATUS).

¹ Estimated models differ without constant based on Chow test (p<.05).
² Estimated models differ with constant based on Chow test (p<.05).

W,F,L,N Estimated coefficients differ by gender based on Chow test (p<.05) in work model (W), formal volunteering model (F), informal volunteering model (I), or non-engagement model (N).

Notes: Reference categories are ages 45–49, not working for pay (in formal/informal volunteer models), not a formal volunteer (in paid work and informal volunteer models), not an informal volunteer (in paid work and formal volunteer models), no educational activities (in paid work, formal/informal volunteer models), less than a college degree, does not receive retirement income, does not receive SSI, does not receive SSI, white, fair/poor health, no work disability, no children under 18 in the household, not giving adult care, not providing care to non-resident children, 2003, weekend interview.

* p < .05;
 ** p < .01;
 *** p < .001 (two-tailed tests).

Table 3

Coefficients from Regressions: Minutes Spent in Paid Work, Formal Volunteering, and Informal Volunteering on the Diary Day by Gender, ATUS 2003–2009

	A. Men			B. Women		
	Paid Work ² SE	Formal Volunteering ^{1,2} SE	Informal Volunteering ³ SE	Paid Work SE	Formal Volunteering SE	Informal Volunteering ^a Marginal Effect SE
Biographical Pacing						
Third Age						
50–54	-18.41 (12.53)	-12.23 (25.42)	-6.64 (15.83)	4.32 (11.17)	28.46 (20.34)	-10.75 (8.21)
55–59 <i>F</i>	-30.26* (12.73)	-73.94** (28.60)	-28.06 (19.66)	-17.92 (12.75)	-3.57 (18.33)	0.03 (9.78)
60–64	-40.71* (16.10)	-2.52 (35.82)	-40.67* (17.23)	-30.71* (15.39)	24.28 (23.35)	-9.68 (9.42)
65–69	-116.90*** (30.91)	-49.55 (43.32)	-7.02 (23.49)	-34.47 (29.74)	1.90 (30.36)	-15.46 (12.71)
70–74	-135.28*** (39.14)	-43.42 (53.78)	-15.41 (26.59)	-93.08** (34.21)	18.54 (29.53)	-19.09 (14.01)
Post-Third Age						
75–79	-137.66** (52.85)	-54.24 (47.58)	-19.28 (28.70)	-95.64* (45.07)	17.16 (29.79)	-6.37 (14.49)
Employment Status						
Full Time						
	-- --	-92.30*** (27.62)	-4.81 (15.69)	-- --	-46.14* (18.18)	-6.03 (6.92)
Part Time						
	-- --	-81.67** (24.91)	-15.93 (17.15)	-- --	-34.27 (20.12)	12.16 (8.02)
Self Employed <i>F</i>						
	-- --	-119.39*** (31.91)	-33.59 (17.75)	-- --	-28.60 (19.50)	14.02 (14.34)
Volunteer Work						
Formal (Yes)						
	-55.76** (20.60)	-- --	-15.32 (15.82)	-86.55*** (18.93)	-- --	-13.44 (8.71)
Informal (Yes) <i>F</i>						
	-75.08*** (20.01)	-57.14** (19.12)	-- --	-86.00*** (16.84)	-3.21 (14.41)	--
Educational Activities (Yes)						
	-118.57* (53.36)	-72.92 (55.65)	-58.78** (19.65)	-59.11 (31.07)	-62.41*** (18.69)	-18.45 (13.48)
Social Location						
Health						
Self-Reported Good/Excellent (CPS)						
	5.89 (20.66)	-9.28 (31.78)	16.23 (14.17)	-2.72 (16.14)	51.04** (17.69)	-12.48 (10.04)
Work Disability (Yes) <i>F</i>						
	-3.88 (26.11)	-108.16*** (31.94)	6.45 (16.94)	-50.32 (32.32)	4.72 (21.20)	0.68 (9.62)
Social Class						
College Degree (Yes)						
	-31.82*** (9.28)	-17.29 (17.17)	-23.99* (10.23)	-18.27 (9.66)	-1.60 (11.42)	-18.45 (13.48)

	A. Men			B. Women		
	Paid Work ² SE	Formal Volunteering ^{1,2} SE	Informal Volunteering ³ SE	Paid Work SE	Formal Volunteering SE	Informal Volunteering ^a Marginal Effect SE
Race						
Black	-15.92 (19.13)	-10.01 (31.58)	-21.29 (19.33)	24.93 (13.36)	1.79 (16.61)	-20.26** (7.62)
Hispanic	0.73 (15.13)	6.59 (34.72)	30.88 (25.09)	1.66 (14.57)	51.88** (18.52)	-17.04 (15.22)
Other	36.78 (23.50)	67.67 (93.17)	-23.55 (24.02)	43.01* (21.43)	48.10 (40.04)	-5.70 (10.49)
Non-Wage Sources						
Retirement (Pension)	-9.12 (17.62)	-48.14* (23.13)	8.86 (13.90)	-17.90 (26.14)	-3.41 (16.25)	2.94 (7.96)
SSI	28.68 (95.25)	11.54 (76.50)	-35.37 (21.82)	63.18 (68.46)	0.12 (38.87)	4.92 (15.23)
SS	-35.16 (32.58)	2.81 (36.37)	-17.78 (18.20)	-35.87 (24.57)	-14.01 (15.99)	1.38 (7.77)
Linked Lives						
Marital Status-Spouse's Employment						
Married, Spouse Employed <i>W,F</i>	18.47 (11.50)	25.56 (22.81)	-0.72 (14.19)	-25.64** (9.68)	-30.74 (15.71)	-8.87 (6.63)
Married, Spouse Not Employed <i>W,F</i>	26.20 (13.78)	22.75 (21.03)	5.13 (15.57)	-24.47 (13.65)	-40.16** (14.37)	-4.35 (6.90)
Children under 18 in the Home (Yes)	-24.45* (10.80)	-26.10 (22.44)	-23.51 (15.47)	-25.72* (11.01)	-13.11 (16.25)	3.48 (6.69)
Non-Resident Child Care (Yes) <i>F</i>	-78.48*** (23.49)	-97.86*** (19.59)	-21.47 (17.42)	-48.86* (21.33)	-22.31 (16.19)	-14.82 (8.41)
Adult Care (Yes)	-67.15* (30.60)	-3.82 (32.95)	1.46 (22.41)	-89.55*** (27.15)	-34.61 (24.12)	6.55 (6.36)
Constant	391.58*** (25.45)	272.41*** (49.34)	109.03*** (23.25)	361.29*** (23.31)	144.92*** (36.56)	
<i>Model Fit</i>						
F	13.01***	2.62***	2.74***	14.68***	2.43***	1.79**
df	30	32	32	30	32	32
Total observations	2381	416	495	2186	627	750

Source: Authors' calculations using the 2003–2009 American Time Use Survey (ATUS).

¹ Estimated OLS models differ without constant based on Chow test ($p < .05$).

² Estimated OLS models differ with constant based on Chow test ($p < .05$).

³ Chow tests not conducted because male and female models are specified differently.

W,F Estimated coefficients differ by gender based on Chow test ($p < .05$) in work model (W), formal volunteering model (F).

Notes : Data shown for OLS models are regression coefficients with standard error in parentheses. Results for women's informal volunteering are from a zero-truncated negative binomial model and show marginal effects with standard errors in parentheses. Reference categories are ages 45–49, not working for pay (in formal/informal volunteer models), not a formal volunteer (in paid work and informal volunteer models), not an informal volunteer (in paid work and formal volunteer models), no educational activities, less than a college degree, does not receive retirement income, does not receive SSI, does not receive SS, white, fair/poor health, no work disability, not married, no children under 18 in the household, not giving adult care, not providing care to nonresident children, 2003, and weekend interview.

* $p < .05$;

** $p < .01$;

*** $p < .001$ (two-tailed tests).