

The Influence of Unpaid Work on the Transition Out of Full-Time Paid Work

Dawn C. Carr, PhD*,¹ and Ben Lennox Kail, PhD²

¹Carolina Program for Health and Aging Research, University of North Carolina Chapel Hill, Institute on Aging, Chapel Hill.

²Department of Sociology and Population Research Institute, Duke University, Durham, North Carolina.

*Address correspondence to Dawn C. Carr, PhD, Carolina Program for Health and Aging Research, University of North Carolina Chapel Hill, Institute on Aging, 720 Martin Luther King Blvd., CB #1030, Chapel Hill, NC 27599-1030. E-mail: carrdc@email.unc.edu

Received January 29, 2012; Accepted May 10, 2012
Decision Editor: Rachel Pruchno, PhD

Purpose: Continued employment after retirement and engagement in unpaid work are both important ways of diminishing the negative economic effects of the retirement of baby boomer cohorts on society. Little research, however, examines the relationship between paid and unpaid work at the transition from full-time work. Using a resource perspective framework this study examines how engagement in unpaid work prior to and at the transition from full-time work influences whether individuals partially or fully retire.

Design and Methods: This study used a sample of 2,236 Americans between the ages 50 and 68, who were interviewed between 1998 and 2008. Logistic regression was used to estimate transitioning into partial retirement (relative to full retirement) after leaving full-time work. **Results:** We found that the odds of transitioning into part-time work were increased by continuous volunteering (78%) and reduced by starting parental (84%), grandchild (41%), and spousal (90%) caregiving and unaffected by all other patterns of engagement in unpaid work. **Implications:** Our findings suggest that volunteering is complementary with a transition to part-time work, and starting a new caregiving role at this transition creates a barrier to continued employment. In order to provide workers the opportunity to engage in the work force longer at the brink of retirement, it may be necessary to increase the support mechanisms for those who experience new caregiving responsibilities.

Key Words: Retirement, Volunteering, Caregiving, Postretirement work

Retirement patterns are changing. Older adults are remaining engaged in the work force later in life. Most people today with career jobs retire at several stages rather than all at once (Cahill, Giandrea, & Quinn, 2006), and about half of the men and two thirds of the women aged 65 and older work part time (Shattuck, 2010). Part-time work allows workplaces to retain the specialized skills and expertise of older workers and allows the workers to continue earning income and maintain gratifying paid work roles after leaving full-time employment. Although certain literatures describe the factors contributing to different retirement patterns (e.g., Cahill et al., 2006; Wang, 2007), little is known regarding how engagement in unpaid work activities relates to the participation of paid work after exiting full-time employment. This is an important issue to understand, in part, because engagement is positively associated with well-being and contributes to the general social good (O'Neill, Wilson, & Morrow-Howell, 2010). Paid and unpaid work activities often occur in combination during later life (Morrow-Howell, 2010). However, research has yet to examine the influence of engagement in unpaid work on paid work in later life. Accordingly, we tested whether unpaid work is associated with engagement in part-time paid work, relative to full retirement, after leaving full-time paid work. We use the 1998–2008 waves of the Health and Retirement Study (HRS) to examine the association of volunteering and three domains of caregiving—spousal, grandchild, and parental—with the transition out of full-time employment.

Background and Theoretical Orientation

Theoretical Framework

We use a resource perspective framework (Wang, 2007) to guide our analysis of the relationship between engagement in unpaid work and the transition out of full-time paid work. This perspective integrates the key features of continuity theory, role theory, and the life course perspective as they relate to transitions in the retirement process. According to this theoretical perspective, the retirement transition is related to the amount of, and access to, changes in resources. Although resources may take the form of physical and cognitive health resources, financial resources, and motivational resources, this study centers on understanding social resources associated with engagement in unpaid work activities. Using this framework, we consider the possibility of unpaid work shaping the social resources, which lead to continued employment after full-time work.

We define social resources as social interactions and connections with others. Thus, social resources shape social integration, social support networks, access to information, and opportunities to retain existing or obtain new social contacts (Lin, Ye, & Ensel, 1999; Wilson & Musick, 1998). Accordingly, unpaid work may facilitate or create barriers to social connections associated with roles and opportunities and retirement transitions. This is important, because unpaid activities may provide an alternative social status for some older adults or for others serve as a means to remain engaged in activities by modifying their existing social connections (Bass, 2011; Carr & Hendricks, 2011). As a result, unpaid work could serve as a catalyst for social capital, allowing people to meaningfully engage and obtain health benefits associated with participation and enhance their ability and opportunity to work after transitioning out of full-time work. Alternatively, unpaid work may be a barrier to social capital, preventing people from obtaining social resources needed to work by diminishing social connections or opportunities to engage in work after transitioning out of full-time employment. In this paper, we focus on two main types of unpaid work activities as they relate to the transition out of full-time work—Volunteering, which includes unpaid work for an organization, and caregiving, which includes unpaid care provided to a spouse, grandchild, or parent.

The Intersection of Paid and Unpaid Activities in Later Life

Whether people actively engage in paid and unpaid activities during their later life is related to the social status, the nature of the activity (particularly as it relates to the cost or benefit an individual receives from the activity), and its connection to other activities (Kaskie, Imhof, Cavanaugh, & Culp, 2008; Kincade et al., 1996; Moen, Dempster-McClain, & Williams, 1989). Older people often engage in both paid and unpaid activities (Morrow-Howell, 2010). Research on the relationship between paid work and unpaid work has focused on (a) the varying degrees to which unpaid work provides social resources that may facilitate continued work, and (b) the extent to which unpaid work creates obstacles to participate in paid work during later life. In what follows, we consider how each of these perspectives may relate to how unpaid activities shape engagement in paid activities after departing from full-time employment.

First, the compatibility between different types of unpaid work activities is a key factor in the relationship between paid work and unpaid work. Volunteering may increase human capital or social resources, which subsequently facilitate work force opportunities, because volunteering fosters interactions with a wider network of individuals (Unger, 1991). Caregiving, on the other hand, relies on social connections among a small number of individuals within an existing social network. As such, caregiving may reduce opportunities to engage in paid work, because it limits access to new networks that facilitate social resource exchange relevant to work force engagement (e.g., Dentinger & Clarkberg, 2002; Ettner, 1996; Henz, 2006; Pavalko & Henderson, 2006). As such, this literature suggests that the relationship between unpaid work and continued employment after leaving full-time work is likely contingent upon the type of unpaid work one is doing, because different forms of work provide varying degrees of access to work-enhancing social resources.

Second, research examining the role of time in the association between unpaid work and paid work in later life suggests that engaging in unpaid work decreases the availability of time for continued work in later life (Johnson & Lo Sasso, 2000). These findings are based on the studies that show starting volunteering is positively associated with leaving work (Caro & Bass, 1997; Mutchler,

Burr, & Caro, 2003; Wilson, 2000). Similarly, leaving work is positively associated with beginning caregiving (Dentinger & Clarkberg, 2002; Moen, Robinson, & Fields, 1994; Scharlach & Boyd, 1989). Taken together, this vein of research highlights the way that unpaid work may create time barriers to continued work after leaving full time work.

In summary, this research is specifically guided by the following research question: How does engagement in unpaid work (i.e., volunteering and caregiving activities) shape whether individuals choose to remain engaged in paid work following departure from full-time employment? Although we are unaware of any research examining the influence of unpaid work on whether individuals work after they depart full-time employment, insights can be drawn from existing research that focus on the association between unpaid work and paid work. Volunteering increases social resources by facilitating social network connections and opportunities to obtain skills that are valuable in the paid work force. In contrast, caregiving decreases the opportunities for new social connections, which may limit continued work. From this literature, we expect that (1) volunteering would be associated with increased odds of part-time employment after departing from full-time work, because it provides access to social resources, and (2) caregiving would be associated with decreased odds of part-time employment after departing from full-time work, because it limits access to social resources. From this literature, we also expect that (3) beginning a new volunteering or caregiving activity after leaving full time work would be associated with decreased odds of part-time employment, because beginning any kind of new unpaid work limits the hours that individuals have to devote to continued paid work activities.

Method

Data

Data are obtained from the 1998–2008 waves of the RAND version of the HRS. Began in 1992, the HRS initially sampled people born between 1931 and 1941—plus their spouses—with follow-up interviews conducted every two years. In 1993, the HRS added a cohort born before 1923; in 1998, cohorts born between 1923 and 1930 and between 1942 and 1947 were included; in 2004, a cohort

born between 1948 and 1953 was included (HRS, 2008; Juster & Suzman 1995; National Institute on Aging, 2007; RAND Center for the Study of Aging, 2008).

Several steps were used to identify the analytic sample. We were interested in labor force participation after the transition from full-time work. Therefore, the risk set was limited to people who were full-time workers (those averaging 35 or more hours of work per week during the previous year) in wave_(t-2) and wave_(t-1) but were no longer working full time in wave_(t). Therefore, respondents must have three consecutive waves of data to be included in the risk set. We used this strategy to capture people who were leaving stable full-time employment and exclude people for whom full-time work was a new or irregular activity. The data structure is such that we observe people for two waves of data prior to the transition from full-time work (waves_(t-2) and waves_(t-1)) and for one wave of data after the transition from full-time work (wave_(t)). Additionally, because individuals are no longer eligible for delayed Social Security retirement credits after age 70, we limited the sample to those who left full-time work prior to their 71st birthday. The resulting analytic sample is comprised of 2,236 individuals, of which 790 transitioned from full-time work to part-time job, and 1,446 transitioned directly into retirement.

Measures

Dependent Variable.—The outcome was a dichotomous measure of the transition out of full-time work between wave_(t-1) and wave_(t). Because of the complexities and nuances surrounding retirement, measuring the departure from full-time work is an indefinite issue (for review see Smeeding & Quinn, 1997). For the current project, individuals were coded “0” if they transitioned into retirement (measured as not working at all) and “1” if they transitioned into partial retirement (measured as having worked less than 35 hours per week). Because other specifications of retirement sometimes require a self-definition as retiree (e.g., see Maestas, 2010) in distinguishing between retirees and nonworkers, we experimented with other specifications of our outcome. In particular, we ran models where we operationalized retirement as only those who were not working and who self-identify as retired, but sensitivity analyses (see Results section) indicated that it did not

significantly improve model fit, and substantive findings were comparable across models.

Unpaid Work.—Four types of unpaid productive activities were included in the analyses: Volunteering and three types of caregiving—spousal, grandchild, and parental. Each of the four types was coded into five mutually exclusive and exhaustive categories: Continuous, stop, start, none, and other. “Continuous” indicates engagement in the activity during all three waves. “Stop” indicates engagement in the two waves prior transition ($wave_{(t-2)}$ and $wave_{(t-1)}$), but not afterwards ($wave_{(t)}$). “Start” indicates no engagement during the two waves prior, but engagement in the wave after leaving full-time work. “None” indicates no engagement in any of the three waves. “Other” includes all other combinations of engagement. Consistent with the prior research (e.g., Burr, Tavares, & Mutchler, 2011; Luoh & Herzog, 2002), we coded individuals as “volunteers” as those who contributed at least 100 hr to an organization in the last 12 months. For both “parental caregiving” and “grandchild caregiving,” the HRS identified people as providing care for 0 hr, 1–199 hr, 200–499 hr, or 500+ hr. Consistent with the volunteer question, we identified caregivers as those who provided care for 200 hr or more during the previous two years (i.e., 2 hours per week of care on average). Parental caregivers included those who provided care for basic personal activities like dressing, eating, and bathing (i.e., activities of daily living [ADLs]). Because no one stopped parental care at the transition to retirement, the measure of caregiving “stopped” is not used in these analyses. Grandchild caregivers included those who provided any care to grandchildren. “Spousal” caregivers included those who were identified by their spouse as primary or secondary caregivers for ADLs (time spent providing spousal care was not available).

Control Variables.—Based on the previous research, twelve controls were used in the following analyses. “Age” was measured as the age of the respondent during the wave in which the transition from full-time work was observed. “Female” was a dichotomously coded indicator of gender. Race was measured with four indicator variables: “white”; “black”; “Hispanic”; and “other race.” “Education” was measured in years (capped at 17 years). “Wealth” was measured as deciles of total housing and nonhousing wealth (excluding pensions)

in $wave_{(t-1)}$. We also controlled for three measures of health at $wave_{(t-1)}$. “Good Self-Rated Health” was a dichotomous measure of self-rated health coded as “1” if respondents reported being in excellent, very good, or good health and “0” if respondents reported being in fair, or poor health. Depressive symptoms were measured using a shortened version of the Center for Epidemiologic Studies—Depression (CES-D) scale (Radloff, 1977). The scale was comprised of eight dichotomous items pertaining to symptoms experienced during the past week. These included: felt depressed; everything was an effort; sleep was restless; was happy (reverse coded); felt lonely; felt sad; could not get going; and enjoyed life (reverse coded). “Vigorous Activity” was a dichotomous indicator of whether respondents participated in activities like sports, heavy labor, or heavy housework during the average week over the previous year. We also included a variable measuring changes in self-rated health from $wave_{(t-1)}$ to $wave_{(t)}$, coded such that higher values indicated improved health. To help prevent against period bias in our model, we included a variable measuring the “Year” in which the transition out of full-time work occurred.

In addition to variables used in the final analysis, we considered several other covariates that the prior evidence indicated, which may be important for employment in later life, including marital status—individuals having at least one living parent or one grandchild; measures of chronic health conditions; changes in CES-D, vigorous activities, retirement income, and health insurance. However, the final models only included variables that improved overall model fit. Model fit was determined using AIC differences tests (McCoach & Black, 2008; Raftery, 1995).

Analysis Plan

The analyses were proceeded in two steps. First, bivariate differences were tested between those who transitioned to partial retirement and those who transitioned to full retirement (Table 1). Second, to test our primary research question, logistic regression was used to assess the impact of unpaid roles on the odds of transitioning from full-time work to partial retirement relative to transition to full retirement (Table 2). Although we used data from multiple waves to construct the data file, each person had only one observation in the final data file, so non-nested logistic regression is an appropriate application here.

Table 1. Person-Level Descriptive Statistics by Transition Status

	Overall		Full retirement		Partial retirement		Range	
	M	SD	M	SD	M	SD	Min	Max
<i>Dependent variable</i>								
Partial retirement	0.3533	0.4781	0.0000	0.0000	1.0000	0.0000	0	1
<i>Key independent variables</i>								
Cont. volunteering ^e	0.0528	0.2236	0.0387***	0.1930	0.0785	0.2691	0	1
Stop volunteering ^e	0.0210	0.1435	0.0180	0.1329	0.0266	0.1610	0	1
Start volunteering ^e	0.0608	0.2391	0.0622	0.2417	0.0582	0.2343	0	1
Other volunteering ^e	0.1257	0.3316	0.1210	0.3263	0.1342	0.3411	0	1
Cont. parents care ^f	0.0036	0.0597	0.0028	0.0525	0.0051	0.0710	0	1
Start parents care ^f	0.0179	0.1326	0.0235***	0.1516	0.0076	0.0869	0	1
Other parents care ^f	0.0201	0.1405	0.0194	0.1378	0.0215	0.1452	0	1
Cont. grandkids care ^g	0.0747	0.2629	0.0747	0.2630	0.0747	0.2630	0	1
Stop grandkids care ^g	0.0541	0.2263	0.0546	0.2273	0.0532	0.2245	0	1
Start grandkids care ^g	0.0626	0.2423	0.0726***	0.2596	0.0443	0.2059	0	1
Other grandkids care ^g	0.1798	0.3841	0.1819	0.3859	0.1759	0.3810	0	1
Cont. spouse care ^h	0.0094	0.0965	0.0111	0.1046	0.0063	0.0794	0	1
Stop spouse care ^h	0.0045	0.0667	0.0041	0.0643	0.0051	0.0710	0	1
Start spouse care ^h	0.0089	0.0942	0.0131***	0.1139	0.0013	0.0356	0	1
Other spouse care ^h	0.0255	0.1576	0.0297*	0.1699	0.0177	0.1320	0	1
<i>Control variables</i>								
Age	59.2080	4.3455	59.1736	4.3446	59.2709	4.3492	50	68
Year	2000.6540	2.2813	2000.6000	2.2932	2000.752	2.2576	1998	2004
Female ^a	0.5197	0.4997	0.4986**	0.5002	0.5582	0.4969	0	1
Black ^b	0.1395	0.3466	0.1535**	0.3606	0.1139	0.3179	0	1
Other race ^b	0.0237	0.1522	0.0214	0.1449	0.0278	0.1646	0	1
Hispanic ^b	0.0854	0.2796	0.1030***	0.3041	0.0532	0.2245	0	1
Years of education	13.1342	2.8338	12.8921***	2.9260	13.5772	2.6008	0	17
Wealth deciles	5.7464	2.6628	5.5401***	2.6062	6.1241	2.7248	1	10
Baseline SRH good + ^c	0.8555	0.3516	0.8340***	0.3722	0.8949	0.3068	0	1
CESD total	1.1856	1.6688	1.2759***	1.7131	1.0203	1.5720	0	8
Vigorous activities ^d	0.5045	0.5001	0.4806***	0.4998	0.5481	0.4980	0	1
Change in SRH	-0.0648	0.3898	-0.0830***	0.4126	-0.0316	0.3419	-1	1
	<i>n</i> = 2,236		<i>n</i> = 1,446		<i>n</i> = 790			

Notes: Differences are significant at the significance levels .001 (***), .01 (**), and .05 (*) using a two-tailed chi-squared test for continuous measures and *t* test for dichotomous variables. Significance indicates a significant difference between transition categories.

^amale; ^bnon-Hispanic white; ^cfair or poor self-rated health; ^ddoes not engage in vigorous activity; ^eno volunteering; ^fno parental care, ^gno grandkids care, ^hno spousal care.

Results

Descriptive Results

Table 1 provides descriptive statistics. After transitioning from full-time work, 35% of the sample was partially retired and 64% was fully retired. Table 1 shows 26% of the sample engaged in some form of volunteering: 5% volunteered for all three waves; 2% stopped volunteering at the transition from full-time work; 6% began volunteering after the transition from full-time work; and 13% had other patterns of volunteering. Caring for a parent with ADLs was less common: Less than 1% of the sample engaged in parental care in all three ways; 2% began parental care after leaving full-time

work; 2% engaged in other forms of patterns in parental care; and none stopped parental care in this sample. About 37% of the sample engaged in care of grandchildren: 7% had provided care in all three waves; 5% stopped providing care after leaving full-time work; 6% started after leaving full-time work; and 18% engaged in other patterns of care for grandchildren. Overall, providing spousal care was least common, with less than 1% providing continuous care, as well as stopping or starting care after the transition from full-time work, but 3% engaged in other patterns of spousal care.

Relative to those in retirement, a greater percentage of partial retirees engaged in continuous volunteering but were less likely to start care for a

parent, grandchild, or spouse. At a bivariate level, volunteering enhances one's ability to continue working, but conversely, taking on new caregiving responsibilities impedes one's ability to continue working after leaving full-time work. Partial retirees are also more likely to be women, more educated, wealthier, healthier, and more active but less likely to be African American or Hispanic.

Logistic Regression Models.—Table 2 shows the results of regression models using the logit link function for dichotomous data. The coefficients represent odds ratios of being partially retired, relative to being fully retired after the transition out of full employment. Model 1 provided a baseline comprising of control variables. In this model, consistent with bivariate results, Hispanics had

lower odds of transitioning to partial retirement, whereas being women, having more education, greater wealth, participating in vigorous activities, and experiencing a positive change in self-rated health were positively associated with transitioning to partial retirement.

In Model 2, the four measures of volunteering were added to the model, and results show that those who participated in continuous volunteering had 77% greater odds of transitioning to partial retirement than those who did not volunteer. Thus, as expected, volunteering after retirement appears to enhance one's opportunity for continued work.

In Model 3, the eleven measures of caregiving were added to the equation of the baseline model. In the results, each of the three measures of beginning a new caregiving responsibility was associated with lower odds of transitioning to par-

Table 2. Logistic Regression Models Predicting Transitioning from Full-time Employment to Partial-Retirement versus Full-Retirement

	(1)	(2)	(3)	(4)
Age	1.012 (0.0107)	1.012 (0.0107)	1.009 (0.0107)	1.009 (0.0108)
Year	1.027 (0.0205)	1.027 (0.0205)	1.023 (0.0206)	1.024 (0.0207)
Female ^a	1.384** (0.128)	1.397** (0.130)	1.400** (0.131)	1.414** (0.133)
Black ^b	0.770 (0.109)	0.768 (0.110)	0.741* (0.106)	0.738* (0.106)
Other race ^b	1.226 (0.353)	1.262 (0.364)	1.188 (0.343)	1.221 (0.354)
Hispanic ^b	0.641* (0.124)	0.636* (0.124)	0.630* (0.123)	0.625* (0.122)
Years of education	1.055** (0.0199)	1.047* (0.0202)	1.053** (0.0201)	1.044* (0.0204)
Wealth deciles	1.040* (0.0197)	1.040* (0.0197)	1.045* (0.0200)	1.045* (0.0201)
Baseline SRH good + ^c	1.267 (0.183)	1.257 (0.182)	1.256 (0.183)	1.246 (0.182)
CESD total	0.959 (0.0285)	0.960 (0.0286)	0.962 (0.0289)	0.963 (0.0290)
Vigorous activities ^d	1.307** (0.120)	1.285** (0.119)	1.301** (0.121)	1.277** (0.119)
Change in SRH	1.377** (0.168)	1.361* (0.166)	1.368* (0.168)	1.349* (0.166)
<i>Volunteering</i>				
Cont. volunteering ^e		1.765** (0.349)		1.776** (0.354)
Stop volunteering ^e		1.388 (0.422)		1.467 (0.450)
Start volunteering ^e		0.859 (0.166)		0.865 (0.168)
Other volunteering ^e		1.048 (0.145)		1.088 (0.152)
<i>Caregiving</i>				
Cont. parents care ^f			1.839 (1.331)	1.886 (1.364)
Start parents care ^f			0.270** (0.122)	0.263** (0.119)
Other parents care ^f			1.121 (0.356)	1.098 (0.350)
Cont. grandkids care ^g			0.953 (0.167)	0.924 (0.163)
Stop grandkids care ^g			0.986 (0.202)	0.952 (0.196)
Start grandkids care ^g			0.595* (0.124)	0.592* (0.124)
Other grandkids care ^g			1.011 (0.125)	1.005 (0.125)
Cont. spouse care ^h			0.580 (0.308)	0.599 (0.318)
Stop spouse care ^h			1.392 (0.922)	1.433 (0.948)
Start spouse care ^h			0.103* (0.107)	0.102* (0.106)
Other spouse care ^h			0.634 (0.201)	0.635 (0.202)
Log likelihood	-1408.55	-1403.39	-1392.64	-1387.32

Notes: N = 2,236, SE in parentheses.

^amale; ^bnon-Hispanic white; ^cfair or poor self-rated health; ^ddoes not engage in vigorous activity; ^eno volunteering; ^fno parental care; ^gno grandkids care; ^hno spousal care.

*p < .05. **p < .01.

tial retirement relative to those with no caregiving responsibilities in that particular caregiving domain. Notably, starting spousal caregiving was associated with the largest reduction in the odds of transitioning to partial retirement, whereas beginning caregiving for grandchildren was associated with the smallest reduction in odds of transitioning to partial retirement. Thus, beginning a new caregiving role appears to be an obstacle for continued work after leaving full-time employment. Additionally, although providing spousal care is uncommon in this sample, among those few that begin providing this form of care, the odds of continued work are particularly low.

In Model 4, the equations from models 2 and 3 were combined. In these results, although the magnitudes of the coefficients were slightly different from previous models, the significance and direction of association was consistent. Continuous volunteering remained associated with increased odds of transitioning to partial retirement, whereas beginning any new caregiving responsibility was associated with decreased odds of transitioning to partial retirement.

In the additional sensitivity analyses, we experimented with other operationalizations of full retirement (specifically including a requirement of self-identifying as retired). We also examined the measures of informal caregiving (i.e., unpaid help provided to friends, neighbors, or relatives who did not live with the respondent) and the gender interactions of each of the unpaid work variables. In these models (not shown, but available upon request) none of the inclusions of new variables or interactions were significant, nor they significantly improved the model fit, and the results were consistent across specifications of the outcome variables.

Discussion

Using the 1998–2008 waves of the HRS data, we sought to assess how engagement in unpaid work was associated with whether individuals remain employed after departing from full-time employment. A key strength of this study is we consider engagement in unpaid work throughout the transition out of full-time work. Our study shows engagement in unpaid work is associated with whether one continues to work after retirement, and this relationship depends upon the nature of the activity.

Our study advances the literature on the association between work and volunteering by con-

sidering how volunteering relates to subsequent work. Our results show that the individuals who volunteer prior to leaving full-time work and remain engaged in volunteering after the transition are more likely to work. Starting volunteering at the transition from full-time work, however, is not associated with whether individuals remain employed. Similarly, other patterns of volunteer engagement in the period leading up to and at the transition from full-time employment are also not associated with whether individuals remain employed. This suggests that volunteering is not a replacement for work, but rather these two productive activities are highly compatible, and the driving force for engagement in both activities might be related to other factors such as the preference in being actively engaged in society.

Our findings also extend the prior work on the relationship between caregiving and work force engagement. Our findings show that caregiving prior to the transition out of full-time work does not influence whether individuals are employed after the transition out of full-time work, but individuals who start caregiving are much less likely to work after transitioning out of full-time employment. In other words, caregiving in and of itself does not prevent individuals from working after they leave full-time employment but rather the timing of caregiving matters with regard to continued employment.

This study is based on an integrative resource perspective framework (Wang, 2007), which informs how unpaid work activities serve as social resources in shaping whether people work after departing from full-time work. Two key factors that may be acting as the linking mechanisms between unpaid productive activities and continued employment after departing from full-time work in later life are (1) the varying degrees to which unpaid work provide social resources that facilitate continued work and (2) the extent to which unpaid work creates obstacles to participate in paid work during later life. With regard to social resources, paid work and volunteerism may reinforce one another during the post-full-time work period. Individuals who are already engaged in volunteer activities prior to departure from full-time work may utilize those social resources to remain engaged in paid work after the transition. In contrast, starting a new caregiving activity could result in diminished social resources relevant to engagement in paid work. Caregiving may

isolate individuals from social resources relevant to continued engagement in paid work. Another explanation for this finding could be that starting a new caregiving activity is a barrier to continued work, because it limits the available time or energy to engage in paid work after departing from full-time work. However, individuals engaged in a caregiving role prior to the transition out of full-time work may already practice utilizing their available time to support continued engagement in paid work prior to transitioning out of full-time employment.

This study has certain limitations, which should be considered when interpreting the results. First, we assume that one of the mechanisms linking volunteering with continued work after leaving full-time employment is through the social resources garnered from being a volunteer. Unfortunately, we are unable to directly measure these resources in the HRS. Future research should test whether the mechanisms linking volunteering with continued work are indeed through social resources, and if not, whether alternative mechanisms (e.g., preferences for remaining socially engaged) may link these two activities in later life. Second, we defined volunteering, parental caregiving, and grandchild caregiving based on whether an individual engages in providing care for an average of 2 hrs or more per week. Although this threshold does provide some level of maximum health and well-being benefits for volunteers during their later life (Burr et al., 2011; Luoh & Herzog, 2002), it may not be relevant to the understanding of the relationship between unpaid work activities and transition out of full-time work in later life. Furthermore, because hours of spousal ADL caregiving cannot be measured, the exact contribution of time spent in these activities is not comparable. Thus, a substantial group of unpaid workers who contribute at levels below our cut-off was not identified. As such, our results may be more conservative in terms of the influence of unpaid work on postretirement employment decisions. Although data limitations prevent continuous measurement of the time spent in these activities among participants in the HRS, future research should explore the effects of other levels of engagement. Third, although we found that starting a new caregiving role was associated with lower odds of choosing part-time employment, some new caregivers may continue working to provide a coping strategy for dealing with the stress of being a caregiver (Burr, Choi, Mutchler, & Caro, 2005; Hoyert & Seltzer,

1992; Taniguchi, 2006). Future research should look specifically at how caregiver stress relates to continued employment and the reasons for remaining employed. Fourth, this study does not have measures of the intensity or specific demands associated with each caregiving activity. Future research should consider how caregiving intensity shapes individuals remain engaged in paid work after leaving full-time work. Finally, although we experimented with various specifications of our outcome variable in this data, we do not know why people initially left full time work. Future research should explore whether the findings at hand hold across a variety of reasons for leaving full-time work. For instance, research should examine the differences, in becoming a volunteer, between those who planned to retire with those who were forced to retire.

Besides these limitations, our study contributes in several ways to understand the relationship between unpaid work and paid work in later life. No previous research has examined how unpaid work influences whether individuals remain engaged in paid work after transitioning out of full-time work. Our understanding of the relationship between these activities are based largely on studies seeking to understand how paid work shapes unpaid work, or the factors contributing to retirement without consideration of whether paid work continues after transitioning out of full-time work. This study is the first to show that the relative relationship between paid work and unpaid work among individuals transitioning out of full-time work in later life is related to the timing of engagement. With the exception of those individuals taking on new caregiving roles, our study suggests that the initiatives seeking to maintain older adults' engagement in paid work after retirement are unlikely to diminish efforts to increase engagement in unpaid work, and it may, in fact, enhance engagement in both the activities. Encouraging full-time workers on the brink of retirement to volunteer may enhance their likelihood of remaining engaged in both the activities, and providing support to new caregivers as they leave full-time work may help them remain engaged in the work force for longer.

Conclusion

This study shows starting a new caregiving role, but not other patterns of caregiving, decreases the odds of remaining engaged in paid work, and

being a volunteer prior to the transition, but not other patterns of volunteer behaviors, increases the odds of remaining engaged in paid work. These major findings have important policy implications. First, volunteerism and postretirement work force engagement initiatives are not in competition for the same participants. Rather, our findings suggest that the policies seeking to encourage continued employment and those seeking to increase volunteering postretirement should complement one another. In fact, our findings suggest that the long-term volunteers at the brink of retirement may be particularly receptive to employment initiatives. Second, our study suggests that the policy initiatives concerned with increasing the paid work engagement after departing from full-time work should identify ways to off-set the potential challenges associated with new caregiving responsibilities. Policies seeking to enhance older adults' engagement in paid work following departure from full-time employment should be informed by research examining the barriers associated with new caregiving roles as it relates to employment. As proposed by the previous studies (e.g., Pavalko & Henderson, 2006; Scharlach, 1994), we suggest that having the opportunities to engage in flexible work hours, the opportunity to work from home, or increasing the access to caregiver respite services may reduce the factors that limit new caregivers from engaging in paid work postretirement.

Funding

This research was supported by NIH grants 5T32 AG000272-09 and 2T32AG000139-21.

Acknowledgements

The authors would like to thank Victor Marshall, Mara Buchbinder, Michele Easter, Sonali Jain, Sabrina Pendergrass, and Robert Turner for their thoughtful feedback on a previous draft of this article.

References

- Bass, S. (2011). From retirement to "productive aging" and back to work again. In D. C. Carr & K. Komp (Eds.), *Gerontology in the era of the third age: Implications and next steps* (pp. 169–188). New York, NY: Springer.
- Burr, J. A., Choi, N., Mutchler, J. E., & Caro, F. G. (2005). Caregiving and volunteering: Are private and public helping behaviors linked? *Journal of Gerontology: Social Sciences*, *60B*, S247–S256. doi:10.1093/geronb/60.5.S247
- Burr, J., Tavares, J., & Mutchler, J. E. (2011). Volunteering and hypertension risk in later life. *Journal of Aging and Health*, *23*, 24–51. doi:10.1177/0898264310388272
- Cahill, K. E., Giandrea, M. D., & Quinn, J. F. (2006). Retirement patterns from career employment. *The Gerontologist*, *46*, 514–523. doi:10.1177/073346489701600403
- Caro, F., & Bass, S. (1997). Receptivity to volunteering in the immediate postretirement period. *Journal of Applied Gerontology*, *16*, 427–441. doi:10.1177/073346489701600403
- Carr, D. C., & Hendricks, J. (2011). Relevance of social capital and lifestyle for the third age. In D. C. Carr & K. Komp (Eds.), *Gerontology in the era of the third age: Implications and next steps* (pp. 207–224). New York, NY: Springer.
- Dentinger, E., & Clarkberg, M. (2002). Informal caregiving and retirement timing among men and women: Gender and caregiving relationships in late midlife. *Journal of Family Issues*, *23*, 857–879. doi:10.1177/019251302236598
- Ettner, S. L. (1996). The opportunity costs of elder care. *Journal of Human Resources*, *31*, 189–205. doi:10.2307/146047
- Health and Retirement Study. (2008). *Public use dataset*. Ann Arbor, MI: Produced and Distributed by the University of Michigan with Funding from the National Institute on Aging (Grant Number NIA U01AG009740).
- Henz, U. (2006). Informal caregiving at working age: Effects of job characteristics and family configuration. *Journal of Marriage and Family*, *68*, 411–429. doi:10.1111/j.1741-3737.2006.00261.x
- Hoyert, D. L., & Seltzer, M. M. (1992). Factors related to the well-being and life activities of family caregivers. *Family Relations*, *41*, 74–81. doi:10.2307/585397
- Johnson, R. W., & Lo Sasso, A. T. (2000). *The trade-off between hours of paid employment and time assistance to elderly parents at midlife*. Washington, DC: Urban Institute. Retrieved from http://www.urban.org/UploadedPDF/elderly_parents.pdf
- Juster, F. T., & Suzman, R. (1995). An overview of the health and retirement study. *Journal of Human Resources*, *30*, 7–56. doi:10.2307/146277
- Kaskie, B., Imhof, S., Cavanaugh, J., & Culp, K. (2008). Civic engagement as a retirement role for aging Americans. *The Gerontologist*, *48*, 368–377. doi:10.1093/geront/48.3.368
- Kincaid, J. E., Rabiner, D. J., Bernard, S. L., Woomert, A., Konrad, T. R., DeFries, G. H., & Ory, M. G. (1996). Older adults as a community resource: Results from the national survey of self-care and aging. *The Gerontologist*, *36*, 474–482. doi:10.1093/geront/36.4.474
- Lin, N., Ye, X., & Ensel, W. (1999). Social support and depressed mood: A structural analysis. *Journal of Health and Social Behavior*, *40*, 344–359. doi:10.2307/2676330
- Luoh, M., & Herzog, A. R. (2002). Individual consequences of volunteer and paid work in old age: Health and mortality. *Journal of Health and Social Behavior*, *43*, 490–509. doi:10.2307/3090239
- Maestas, N. (2010). Back to work: Expectations and realizations of work after retirement. *Journal of Human Resources*, *45*, 718–748. doi:10.1257/jep.24.1.139
- McCoach, D. B., & Black, A. C. (2008). Evaluation of model fit and adequacy. In A. A. O'Connell & D. B. McCoach (Eds.), *Multilevel modeling of educational data* (pp. 245–272). Charlotte, NC: Information Age Publishing.
- Moen, P., Dempster-McClain, D., & Williams, R. M., Jr. (1989). Social integration and longevity: An event history analysis of women's roles and resilience. *American Sociological Review*, *54*, 635–647. doi:10.2307/2095884
- Moen, P., Robinson, J., & Fields, V. (1994). Women's work and caregiving roles: A life course perspective. *Journal of Gerontology: Social Sciences*, *49*, S176–S186.
- Morrow-Howell, N. (2010). Volunteering in later life: Research frontiers. *Journal of Gerontology: Social Sciences*, *65B*, 461–469. doi:10.1093/geronb/gbq024
- Mutchler, J. E., Burr, J. A., & Caro, F. G. (2003). From paid worker to volunteer: Leaving the paid workforce and volunteering in later life. *Social Forces*, *81*, 1267–1293. doi:10.1353/sof.2003.0067
- National Institute on Aging. (2007). *The health & retirement study: Growing older in America*. NIH Publication No. 07-5757.
- O'Neill, G., Wilson, S. F., & Morrow-Howell, N. (2010). *The civic enterprise: Advancing civic engagement opportunities in later life*. Washington, DC: Gerontological Society of America. Retrieved from <http://www.geron.org/CE%20Introduction%20for%20website.pdf>
- Pavalko, E. K., & Henderson, K. A. (2006). Combining care work and paid work: Do workplace policies make a difference? *Research on Aging*, *28*, 359–374. doi:10.1177/0164027505285848
- Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, *1*, 385–401. doi:10.1177/014662167700100306
- Raftery, A. (1995). Bayesian model selection in social research. *Sociological Methodology*, *25*, 111–196. doi:10.2307/271063
- RAND Center for the Study of Aging. (2008). *RAND HRS data, version H*. Santa Monica, CA: With Funding From the National Institute on Aging and the Social Security Administration.

- Scharlach, A., & Boyd, S. L. (1989). Caregiving and employment: Results of an employee survey. *The Gerontologist*, 29, 382–387. doi:10.1093/geront/29.3.382
- Scharlach, A. E. (1994). Caregiving and employment: Competing or complementary roles? *The Gerontologist*, 34, 378–38. doi:10.1093/geront/34.3.378
- Shattuck, A. (2010). Older Americans working more, retiring less (Issue Brief no. 16). Durham, NH: Carsey Institute, University of New Hampshire.
- Smeeding, T. M., & Quinn, J. F. (1997). Cross-national patterns of labor force withdrawal. LIS working paper no. 170. Luxembourg Income Study, from <http://www.lis.ceps.lu>
- Taniguchi, H. (2006). Men's and women's volunteering: Gender differences in the effects of employment and family characteristics. *Nonprofit and Voluntary Sector Quarterly*, 35, 83–101. doi:10.1177/0899764005282481
- Unger, L. S. (1991). Altruism as a motivation to volunteer. *Journal of Economic Psychology*, 12, 71–100. doi:10.1016/0167-4870(91)90044-T
- Wang, M. (2007). Profiling retirees in the retirement transition and adjustment process: Examining the longitudinal change patterns of retirees. *Journal of Applied Psychology*, 92, 455–474. doi:10.1037/0021-9010.92.2.455
- Wilson, J. (2000). Volunteering. *Annual Review of Sociology*, 26, 215–240. doi:10.1146/annurev.soc.26.1.215
- Wilson, J., & Musick, M. (1998). The contribution of social resources to volunteering. *Social Science Quarterly*, 79, 799–814.