

Florida State University Libraries

2019-02-01

Underlying Motivations Of Volunteering Across Life Stages: A Study Of Volunteers In Nonprofit Organizations In Nevada

Takashi Yamashita, Jennifer R. Keene, Chi-Jung Lu and Dawn C. Carr

The publisher's version of record is available at <https://doi.org/10.1177/0733464817701202>



Underlying Motivations of Volunteering Across Life Stages: A Study of Volunteers in Nonprofit Organizations in Nevada

Takashi Yamashita¹, Jennifer R. Keene¹,
Chi-Jung Lu¹, and Dawn C. Carr²

Abstract

Volunteering is beneficial not only for individuals' well-being but also for society's well-being; yet only a fraction of U.S. citizens regularly engage in volunteer activities. This study examined how underlying motivations are associated with interest in volunteering for individuals in three major life phases: early, middle, and later adulthood. Data were collected from 1,046 adults who volunteered through nonprofit organizations in Nevada (USA). Exploratory factor analysis revealed that community service, career advancement, and well-being were common underlying motivations for individuals across life stages. However, generativity among the later adulthood group, and social networking among the early and middle adulthood groups were unique motivations for volunteering. Regression analysis showed that the community service motivation was significantly associated with individuals' interest in volunteering among all life stages. Simultaneously, generativity for

Manuscript received: May 31, 2016; **final revision received:** February 17, 2017;
accepted: February 25, 2017.

¹University of Nevada, Las Vegas, USA

²Florida State University, Tallahassee, USA

Corresponding Author:

Takashi Yamashita, Department of Sociology, University of Nevada, Las Vegas, Box 455033,
4505 S. Maryland Parkway, Las Vegas, NV 89154-5033, USA.

Email: takashi.yamashita@unlv.edu

the later adulthood group, and career advancement for the early adulthood group were unique motivations linked to their actual interest in volunteering.

Keywords

volunteerism, civic engagement, life course, socioemotional selectivity theory, generation

Introduction

A robust and growing literature on volunteerism suggests that this lifestyle behavior is related to powerful health benefits for those who volunteer, situating it among other well-established beneficial public health behaviors such as smoking cessation, nutrition, and exercise (Carr, Fried, & Rowe, 2015). Despite a growing awareness of the many benefits of volunteering, only about one in four individuals volunteer in the United States, a rate that has remained fairly constant over the last decade (Corporation for National & Community Service, 2014). Furthermore, only a small fraction of those who volunteer do so on a regular basis. Increasing the national prevalence of regular volunteer engagement is becoming an important public health priority. A key barrier to increasing volunteerism across the country is a lack of understanding about the motivational factors involved, how such motivations translate to individuals' actual interest in volunteering, and whether these relationships vary across different phases in the life course.

Background: Motivation and Life Stage

Previous research examining factors related to individuals' decisions surrounding volunteer engagement suggests that the messaging offered to potential volunteers is crucial, and is most effective when it addresses recipients' motivations (Clary et al., 1998). Of the minimal research that has examined motivations for volunteering, the most well-established factor is chronological age (Clary et al., 1998). Chronological age is relevant to motivations for volunteering because it serves as a proxy for life stage (Settersten, 2003). That is, age represents the broad periods of the life course during which major life roles such as education, career, family, and retirement shapes everyday behaviors, including volunteering decisions (Carr, King, & Matz-Costa, 2015; Oesterle, Johnson, & Mortimer, 2004; Okun, Barr, & Herzog, 1998; Rotolo & Wilson, 2004; Tang, 2006).

One reason that life stage may be a critical factor with respect to volunteering behavior relates to the differences in how we prioritize our time and energy during different periods of life, including our decisions about how to invest our time and what we value. Socioemotional selectivity theory (SST) explains these shifts in priorities as we age, positing that as our time horizon shortens, our priorities shift and emotionally meaningful engagement becomes more salient than substantively novel forms of engagement (Carstensen, 1992). In other words, younger adults tend to place greater emphasis on issues that relate to their career and future goals (e.g., market-oriented goals such as one's own career advancement), whereas older adults tend to place more emphasis on activities that are emotionally meaningful (e.g., Dávila & Díaz-Morales, 2009). Socioemotionally meaningful activities typically refer to activities that are subjectively important to and prioritized by individuals, and are often characterized as immediate contributions to their societies, communities, and/or future generations. Volunteering is one of the common emotionally gratifying activities that applies to individuals across all life stages in general, and in later life in particular (Hendricks & Cutler, 2004). A shift in priorities may help shape the motivational factors that drive volunteer engagement. Indeed, although emotionally meaningful activities and engagement are important across the life course (Dittman-Kohli & Westerhof, 1999; Ryff & Keyes, 1995), younger adults consider volunteering an instrumental means to advancing their careers (e.g., by developing skills, gaining experience, and networking) (Flanagan & Levine, 2010). In comparison, older people are more selective about which volunteer organizations they engage with, and therefore contribute to fewer organizations than younger people, however, when they do volunteer they contribute more time relative to younger individuals (Hendricks & Cutler, 2004).

If our goal is to recruit and retain more volunteers in every life stage, then we need to more fully understand how differences in motivations to volunteer intersect with individuals' actual interest in volunteer participation during different life phases (Okun et al., 1998). That is, one may have various motivations for volunteering, and each reason may be more or less associated with an actual interest in volunteer participation. Given the lack of studies of volunteerism in the United States, we require more rigorous empirical research on "practical" motivations for volunteering that compares across life stages. Most research on volunteering focuses on the benefits of and/or barriers to participation in volunteer activities without a clear understanding of how these factors interface with volunteers' priorities at different ages and life stages (Carr, Fried, & Rowe, 2015; Kart & Kinney, 2001; Li & Ferraro, 2006).

Few research tools are designed to examine motivations related to volunteering, particularly with the goal of tapping into how these factors might serve a differential purpose for individuals in different life phases. We are aware of only one such instrument, the "Volunteer Functions Inventory" (VFI), which was originally designed to test six primary factors associated with the reasons why individuals might volunteer: values, understanding, career, social, esteem, and protective (Clary et al., 1998; Okun et al., 1998; Okun & Schultz, 2003). Importantly, the VFI was informed by functional theory, which proposes that volunteer activities should match individuals' specific motivations to be emotionally gratifying (Clary, Snyder, & Ridge, 1992). As such, identification of specific motivations is critical to promote and maintain volunteer participation. For example, the six motivation factors (see Clary et al. 1992, for more detailed descriptions) tested in the VFI include (a) "values," which relates to the ability to carry out one's values through volunteering; (b) "understanding," which refers to obtaining firsthand experience with the social problems of particular concern; (c) "career," which relates to obtaining job-related skills that are beneficial to advancing one's career; (d) "social," which relates to engagement in social interactions that are valued by one's social group; (e) "esteem," which is associated with the volunteer activity that makes one feel needed; (f) "protective," which is associated with negative feelings, such as loneliness or guilt, for which volunteering provides an escape or remedy.

The tenets of SST suggest that we should see variations in volunteer motivations by life stage (early, middle, and later adulthood). There is some preliminary evidence to support such a hypothesis. For example, younger people are motivated by "career" factors, but older people are not (Clary & Snyder, 1999; Ho, You, & Fung, 2012). Older people show the desire to use the skills they obtained earlier in life to contribute to the well-being of younger people (Brayley et al., 2014). Thus, based on existing research about individuals' motivations for volunteering, and drawing on SST, this study seeks to identify individuals' underlying motivations for volunteerism and to examine how they are associated with actual interest in volunteering in three major life phases: early, middle, and later adulthood. Specifically, this research seeks to address two primary research questions:

Research Question 1: What are the underlying motivations for volunteering in early, middle, and later adulthood life phases among individuals who have previously volunteered?

Research Question 2: Are individuals' underlying motivations for volunteering associated with their actual interest in volunteering?

Regarding the first research question, we draw on SST and hypothesize that younger volunteers are more motivated by factors related to preparation for their future. In contrast, we expect that older people are more motivated to volunteer by emotionally meaningful factors. Regarding the second research question, we hypothesize that socioemotional motivations are associated with interest in volunteering among older adults whereas market-oriented motivations are associated with interests in volunteerism among younger adults.

Method

Study Location

This study was conducted in the State of Nevada (USA). Since Nevada was recently ranked with the second lowest volunteerism rate in the nation (Corporation for National & Community Service, 2015), there has been a strong demand from the State and from local communities for research and interventions to help improve volunteerism across the state. Participants in this study were recruited from 63 primary nonprofit volunteer organizations in Nevada, for which participants worked the most frequently. The primary organization was identified based on the number of times participants reportedly worked there during the last year in case the respondents listed multiple organizations in the survey. Respondents reported that they volunteered at one or more of 80 organizations in the past year. The nonprofit organizations spanned an extensive range of sectors, varied widely in size, scope, level of resources, and provision of services and addressed a broad range of social causes and goals. The organizations from which the respondents were recruited included those that addressed everything from improving animal welfare, to those focused on poverty and homelessness, and even some that focus on providing grief support for children. With this variability in mind, the focus of the study is on the individual volunteers and their interests and motivations.

Procedure

The recruitment process proceeded along four steps. First, key stakeholders from volunteer-related state government organizations and local nonprofit organizations were contacted to identify the greater network of volunteer organizations in Nevada. Second, the stakeholders who agreed to assist in this study provided a list of volunteer coordinators in their networks. Of those, 54 volunteer coordinators—some of whom were affiliated with multiple organizations—consented to participate in this study. In this process, 13

organizations were excluded as they did not have the email addresses of their volunteers and the survey was an online questionnaire. Third, a formal request to take the online survey (described in the next section) was sent to volunteers directly from the volunteer coordinators. The recruitment statement noted that five randomly selected participants would receive a tablet device (worth approximately US\$500) as an incentive. Finally, two additional reminder emails were sent to the volunteer coordinators, which were forwarded to their volunteers, 1 week before, and again 1 day before the last day of the data collection period.

Data collection was conducted from July 20 to September 21, 2015. In total, 1,530 volunteers accessed the online survey. Individuals aged below 25 years ($n = 207$) were excluded from all analyses due to their potential engagement in higher education and school-volunteer programs at the time of survey. Given the current study focused on volunteerism through nonprofit organizations in urban communities, other types of volunteer programs such as school-volunteer programs should be separated out due to their unique characteristics (e.g., classroom social network, extracurricular activities) and their typical volunteer participants (e.g., exclusion of nonstudents, structurally out of labor force status among some of traditional full-time students). The cutoff age of 25 years was chosen based on the age at which most adults complete college education according to national statistics (National Center for Education Statistics, 2016). The remaining participants were classified into three life stage groups (younger, middle, and later adulthood = age 25-49; 50-64; 65 and older) based on the distribution of the data, and guided by previous studies (Li & Ferraro, 2006; Tang, 2006). After excluding cases with 0% completion ($n = 214$) and/or missing values in key variables ($n = 63$), the final sample size for analysis was 1,046— n (young adulthood) = 419; n (middle adulthood) = 322; n (later adulthood) = 305. The characteristics of respondents according to life stage are described in the results section and are reported in Table 2.

The online survey was developed and distributed as follows. The 54 volunteer coordinators completed a short online survey to identify and clarify areas of interest among local community volunteer organizations. Based on the volunteer coordinator survey results and a review of existing scales tapping into volunteer motivations, we adopted (with permission) the Santa Clara Volunteer project survey instrument, which was developed by the Stanford Center on Longevity (Reed, Carr, Rowe, & Carstensen, 2013). The Santa Clara Volunteer project survey was pilot-tested with six stakeholders from a state government organization and local nonprofit organizations in Nevada, and was revised to improve the clarity of some questions as well as to reflect local community input. However, none of the volunteer-related

questions from the Stanford Center on Longevity Volunteer Survey were modified. The Qualtrics online survey system (Qualtrics, 2013) was used to distribute the survey. The study design and final survey tool were approved by the Institutional Review Board of the University of Nevada, Las Vegas (Protocol number: 737179-1). Participants provided their consent at the beginning of the online survey.

Measurements

Outcome variable. Respondents' degree of interest in formal volunteering was measured by a 4-point Likert-type scale (1-4: higher values indicated greater interest in volunteering). Degree of interest in formal volunteering was originally assessed in a 7-point Likert-type scale (1-7: *not at all interested* to *extremely interested*). However, preliminary analysis showed extremely low counts on the scale in the lowest categories of 1, 2, 3, and 4, which can be collectively considered "not interested in volunteering or neutral." Such a skewed distribution was expected since all participants had formal volunteer experience by the time of this study. Formal volunteering was defined as "helping a religious, educational, health-related, cultural, or other charitable organization but not for financial gain" (Reed et al., 2013).

Predictor variables. Our measure for motivation to volunteer is based on a modified version of the VFI. This instrument was developed by researchers at Stanford Center on Longevity to examine motivations associated with volunteering for individuals in different phases of life. Our modified VFI includes a set of 18 7-point Likert-type scale survey items (1-7; *strongly disagree* to *strongly agree*) based on the key characteristics of the VFI. A complete list of items is shown in Table 1. Further details associated with the development of this instrument are available upon request. Based on the results of exploratory factor analysis (EFA; described in later sections) using these 18 items, four volunteer motivation indices were created and used in the subsequent analyses. Each index recorded the average value from the unique set of multiple survey items that loaded highly onto a factor.

Covariates. We control for several factors that are well-established as associated with volunteer engagement (Carr, Fried, & Rowe, 2015; Morrow-Howell, 2010). *Age* was measured in years. *Gender* (women vs. men), *marital status* (married vs. not married), *employment status* (employed vs. not employed/retired), and *race* (White vs. non-White) were dichotomous variables. All non-White participants were grouped together due to small cell sizes across race/ethnic groups, all non-White participants accounted

Table 1. Motivation-Related Items, Factor Loadings From Exploratory Factor Analyses, and Reliability Indicators by Life Stages.

Items	Early adulthood				Middle adulthood				Later adulthood			
	F1	F2	F3	F4	F1	F2	F3	F4	F1	F2	F3	F4
	I would volunteer more if it . . .											
1. allowed me to develop new skills	0.67					0.52						
2. allowed me to increase my job-related knowledge	0.98				0.94					0.71		
3. allowed me to advance my career	0.98				0.9					1.00		
4. allowed me to make meaningful contributions to my community				0.88	0.86				0.73			
5. allowed me to help younger colleagues								0.49				0.66
6. allowed me to help other employees advance in my workplace	0.41											0.44
7. allowed me to serve with a group of my closest colleagues		0.97						0.83				0.81
8. allowed me to serve with a group coworkers from my unit/office		1.00						0.95		0.57		
9. allowed me to serve by myself												
10. allowed me to volunteer on a flexible schedule									0.58			
11. allowed me to volunteering during fixed hours each week												

(continued)

Table 1. (continued)

Items	Early adulthood				Middle adulthood				Later adulthood			
	F1	F2	F3	F4	F1	F2	F3	F4	F1	F2	F3	F4
12. allowed me to make use of my work expertise				0.41	0.69				0.76			
13. allowed me to make use of my life experience				0.74	0.74				0.84			
14. covered the out-of-pocket expenses, such as transportation			0.46			0.49					0.41	
15. made me healthier		0.96								0.92		0.89
16. helped me live longer		1.00								0.96		0.95
17. made me feel happier				0.64	0.53				0.55			
18. allowed me to volunteer with my spouse/partner		0.44										
Reliability indicators												
Cronbach's alpha	0.88	0.77	0.82	0.78	0.79	0.80	^a	0.82	0.82	0.84	0.81	0.80
McDonald's omega	0.86	0.75	0.86	0.67	0.78	0.78	^a	0.82	0.75	0.85	0.80	0.80

Note. The numbers are factor loadings except for the reliability indices including Cronbach's alpha and McDonald's omega. Blanks indicate either not the highest loading to a factor or factor loading less than 0.4.

F1-F4: Factors 1-4.

Factor names for younger adulthood: (F1) Career advancement; (F2) Social network; (F3) Well-being; (F4) Community service.

Factor names for middle adulthood: (F1) Community service; (F2) Career advancement; (F3) Well-being; (F4) Social network.

Factor names for later adulthood: (F1) Community service; (F2) Career advancement; (F3) Well-being; (F4) Generativity.

^aReliability indicator was not computed due to only two items.

Table 2. Descriptive Summary of the Participants by Life Stages Including Young, Middle, and Later Adulthood Groups.

Variables	Early adulthood (<i>n</i> = 419; age 25-49)		Middle adulthood (<i>n</i> = 322; age 50-64)		Later adulthood (<i>n</i> = 305; age 65 and older)	
	M (SD)	or percentage	M (SD)	or percentage	M (SD)	or percentage
Interest in volunteering						
1. Not interested in volunteering or neutral		16.67%		18.45%		19.10%
2		21.79%		15.77%		15.28%
3		17.95%		19.80%		21.18%
4. Extremely interested		43.59%		45.97%		44.44%
Age		37.14 (7.18) ^{a,b}		57.10 (4.43) ^b		71.40 (5.14)
Gender (women)		82.78% ^{a,b}		75.39% ^b		67.33%
Marital status (married)		44.77% ^{a,b}		56.87%		59.67%
Employment status (employed)		76.43% ^{a,b}		53.29% ^b		13.01%
Race (White)		61.64% ^{a,b}		77.24% ^b		89.86%
Number of household members		3.02 (1.57) ^{a,b}		2.21 (1.14) ^b		1.80 (0.72)
Educational attainment						
1. Less than high school		0.74% ^b		0.00% ^b		0.01%
2. High school diploma		9.65% ^b		9.15% ^b		10.20%
3. Some college		34.90% ^b		37.58% ^b		25.85%
4. Bachelor's degree		33.17% ^b		29.74% ^b		31.63%
5. Master's degree		17.82% ^b		18.30% ^b		25.51%
6. Doctoral/professional degree		3.71% ^b		5.23% ^b		6.46%

(continued)

Table 2. (continued)

Variables	Early adulthood (n = 419; age 25-49)	Middle adulthood (n = 322; age 50-64)	Later adulthood (n = 305; age 65 and older)
	M (SD) or percentage	M (SD) or percentage	M (SD) or percentage
Household income			
1. Less than US\$25,000	12.81% ^{a,b}	10.49% ^b	6.57%
2. US\$25,000-US\$49,999	26.88% ^{a,b}	18.88% ^b	28.19%
3. US\$50,000-US\$74,999	21.36% ^{a,b}	20.98% ^b	30.50%
4. US\$75,000-US\$99,999	15.33% ^{a,b}	17.83% ^b	15.44%
5. US\$100,000 or more	23.62% ^{a,b}	31.82% ^b	19.31%
Number of religious participation	3.70 (1.35) ^{a,b}	3.71 (1.34) ^b	3.62 (1.37)
Self-rated health			
1. Poor	0.74% ^{a,b}	0.98% ^b	0.00%
2. Fair	4.22% ^{a,b}	1.96% ^b	0.07%
3. Good	14.39% ^{a,b}	11.11% ^b	4.41%
4. Very good	41.44% ^{a,b}	33.66% ^b	32.20%
5. Excellent	39.21% ^{a,b}	52.29% ^b	67.71%

Note. ANOVA with Tukey's post hoc test was used for continuous variables, and χ^2 test was used for categorical variables.

a. Statistically significant difference ($p < .05$) from Middle Adulthood.

b. Statistically significant difference ($p < .05$) from Later Adulthood.

for less than 5% except for blacks (about 9%). We controlled for the *number of household members* to take into consideration all of the potential individuals in one's household for whom an individual may provide or receive care. *Educational attainment* was measured by a 6-point Likert-type scale (1-5: *less than high school to doctoral or professional degree*; see Table 2 for the all categories). *Household income* was coded in a 5-point Likert-type scale in US\$25,000 increments (1-5: *less than US\$25,000 to US\$100,000 or more*). *Religious participation* (i.e., frequency of religious service attendance) has been shown to be related to volunteer engagement (Manning, 2010). Based on this research, this variable was coded based on a 5-point Likert-type scale (1-5: *more than once a week to not at all*; see Table 1 for the all categories). Finally, self-rated health was coded using a 5-point Likert-type scale (1-5: *poor to excellent*; see Table 1 for the all categories).

Statistical Analysis

Descriptive summary and EFA. All statistical analyses were done by life stage comparing early, middle, and later adulthood and were performed using R version 3.0.1 (R Core Team, 2013). EFA was used to investigate the underlying structure of motivations for volunteering by the three life stages. EFA with the maximum likelihood estimation and promax rotation by participants' life stages was evaluated (Brown, 2006). Promax rotation was applied because the underlying factors were likely to be correlated. Subsequently, the parallel test was conducted to determine how many factors should be extracted, and a four-factor solution was chosen (Costello & Osborne, 2005). EFA was run for each life stage group, and the survey items with factor loadings of 0.4 or greater were retained. For sensitivity analyses, different solutions (the number of factors to be extracted = 3, 4, 5, and 6) were examined; however the four-factor solution was retained given the factor loadings and the internal consistencies (i.e., Cronbach's alpha and McDonald's omega; see Table 1) (McDonald, 1999; Revelle & Zinbarg, 2009). Finally, the average value of the survey items loaded onto each factor was calculated as an index to be included in the regression analysis.

Regression analysis. Proportional odds ordinal logistic regression was estimated using the *polr* function in MASS package (Venables & Ripley, 2002). Degree of interest in volunteering was modeled as a function of four motivation indices and covariates. The contents of the motivation indices reflect the results from EFA for each life stage. First, unconditional models with only the four motivation indices was constructed. Upon

verification of the nonsignificance of each relationship, all covariates were added to the unconditional models. Each model's quality was evaluated based on the Akaike Information Criterion (AIC: smaller values indicate better model fit). Conditional models showed smaller AICs than did the unconditional models in each of the life stages (see Table 3). All levels of the outcome variable had at least 15% of cases. Also, the proportional odds assumption was checked against the likelihood ratio chi-square test using the results from the ordinal logistic regression and multinomial logistic regression (*multinom* function in the *nnet* package; Venables & Ripley, 2002). The proportional odds assumption was met for all life stage groups ($p > .59$). In addition, the statistical power of each model was evaluated using the power analysis function for general linear models in the *pwr* package (Champely, 2012), and verified that all models had adequate statistical power (all $> .8$). Although alternative models such as ordinary least squares regression and binary logistic regression were considered, these were not adopted due to distributional assumption violations (DeMaris, 2004). In the case of binary logistic regression, dichotomizing the outcome variable was inappropriate because roughly equal frequency distributions in greater interest categories (i.e., 5, 6, and 7) were observed, and collapsing these categories would have lost valuable information among volunteers who were already interested in volunteering. For each test, statistical significance was evaluated at alpha level of .05.

Results

A descriptive summary of the participants' characteristics is shown in Table 2. Overall, more than 80% of respondents in each life stage group were interested in formal volunteering. Approximately 45% of participants showed the highest level of interest in volunteering in each group. The volunteers in this study were more likely to be women regardless of age (67%-83%). The proportion of women was significantly higher ($p < .05$) in the younger adulthood group than in the others. As expected, employment rates were consistently lower ($p < .05$) in the middle and later adulthood groups than in the younger adulthood group. Older respondents were more likely to be White ($p < .05$). Although there was no significant difference in educational attainment between middle and later adulthood groups, the later adulthood group had significantly different levels of education ($p < .05$) from the other two groups. The middle adulthood group had significantly ($p < .05$) higher household income than the other two groups. Unlike in the general population, participants in later adulthood were more likely to report that they were in "excellent health" than younger adults in this study.

Table 1 shows the results from EFA by life stages. Overall, we found differing underlying motivation structures across life stages. Upon verification of high factor loadings (greater than 0.4) and reliabilities (greater than 0.6) (see Table 1), conceptually grounded names were given to each of the four factors. In all groups, community service, career advancement, and well-being were identified as motivations for volunteering. However, the item compositions of these factors were not equivalent across the life stages. Also, one unique factor—generativity—was the underlying motivation only among participants in the later adulthood group. Social networking opportunities was one of the motivation factors among the younger and middle adulthood groups although it was not in the later adulthood group. In short, both common and unique structures of motivation factors were identified across life stages, and the item composition of each factor was unique to each group.

Table 3 shows the results from proportional odds ordinal logistic regressions predicting participants' level of interest in volunteer engagement. The community service factor was a statistically significant predictor of participants' interest in volunteering in all life stages. To help with interpretation, a one unit increase in the community service index was associated with about 1.9 to 2.0 times greater odds of being more interested in volunteering ($p < .001$). No other indices were statistically significant in all of the groups. However, the career advancement index was negatively related (odds ratio [OR] = 0.8; $p < .05$) to interest in volunteering in the early adulthood group. Finally, the well-being index was negatively associated (OR = 0.8; $p < .05$) with individuals' interest in volunteering in the later adulthood group. These results were consistent even after adjusting for respondents' demographic, socioeconomic, and health characteristics.

Discussion

This study examined a sample of adults aged 25 years and older in Nevada who had volunteered in the previous 12 months for at least one nonprofit organization. Results from EFA identified five underlying motivational factors in total: *community service*, *social networking*, *career advancement*, *well-being*, and *generativity*. Guided by SST, we hypothesized that respondents in earlier life phases would be motivated to volunteer based on their future goals (e.g., career advancement), whereas older people would be motivated to volunteer by factors related to emotional meaning, and we found partial support for this hypothesis. Results showed that two of the factors operate specifically according to life phase, while the other three factors are equally relevant to respondents in all three life phases. First, *generativity* was unique to the later adulthood group. As proposed by SST, socioemotionally

Table 3. Estimated Odds Ratios From Proportional Odds Ordinal Logistic Regressions on Interest in Volunteering by Life Stages.

	Early adulthood		Middle adulthood		Later adulthood	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
	OR (SE)					
Community service ^a (1-7)	2.06 (0.14) ^{***}	2.12 (0.15) ^{***}	1.84 (0.14) ^{***}	1.96 (0.16) ^{***}	1.74 (0.13) ^{***}	1.94 (0.15) ^{***}
Social network ^a (1-7)	ns	ns	ns	ns		
Career advancement ^a (1-7)	0.81 (0.09) [*]	0.74 (0.11) ^{**}	ns	ns	ns	ns
Well-being ^a (1-7)	ns	ns	ns	ns	0.80 (0.10) [*]	0.76 (0.11) [*]
Generativity ^a (1-7)					ns	ns
Age		ns		ns		ns
Gender (women)		ns		2.54 (0.31) ^{**}		ns
Marital status (<i>married</i>)		ns		ns		ns
Employment status (<i>employed</i>)		ns		ns		ns
Race (<i>White</i>)		ns		ns		ns
Number of household members		0.81 (0.08) ^{**}		ns		2.81 (0.48) [*]
Educational attainment (1-6)		ns		ns		1.79 (0.22) ^{**}
Household income (1-5)		ns		ns		1.35 (0.13) [*]
Number of religious participation		ns		ns		ns
Self-rated health (1-5)		1.40 (0.13) [*]		ns		ns
Akaike Information Criterion	833.42	750.82	654.69	508.07	614.59	525.53

Note. The proportional odds assumptions were met in all models. OR = odds ratio; "blank" = not included in the model.

^aThe items in the index differ due to the unique underlying structure of motivational factors by life stages.

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

gratifying activities such as helping others and/or helping the next generation are of increased interest as we age (Carstensen, 1992; Dávila & Díaz-Morales, 2009; Principi, Chiatti, Lamura, & Frerichs, 2012). However, generativity-related activities may also be important to those in later adulthood because they help older people maintain meaningful roles (e.g., after retirement), which has been demonstrated in previous studies (Clary et al., 1998; Musick & Wilson, 2003; Okun & Schultz, 2003). Also suggested by SST, the younger and middle adulthood groups may not share generativity as a primary motivator because these relatively younger adults are more market-oriented and concerned about their future and ongoing careers (Carstensen, 1992).

In fact, this rationale may explain the second unique life phase factor. *Social networking* was identified as a motivational factor only in the younger and middle adulthood groups. The survey items that comprise the social networking factor are mainly related to individuals' work relationships in this study. Thus, the relationships at work may be relevant to volunteer motivation because it helps advance one's career (Principi et al., 2012). Career and social factors like these have been recognized as volunteer motivations among younger adults in previous studies (e.g., Okun & Schultz, 2003; Tang, 2006). In addition, SST suggests that older adults, particularly retirees, value meaningful relationships and social interactions, but not social engagement that is intended to lead to expansion of one's social network. Rather, older people are more interested in cultivating meaningful interactions with individuals within one's existing social network, and focusing on those relationships that are most meaningful (Carstensen, 1992). Future research might examine these issues more closely, and explore how the relevance of social interactions is related to shaping decisions to volunteer at different phases of life.

Unlike *generativity* and *social networking* factors, which are unique to specific life stages, *community service*, *career advancement*, and *well-being* motivational factors were relevant for all volunteers regardless of life stage. These motivational factors may be equally effective for volunteer recruitment and retention in all three life phases. However, given the volunteer experience of participants in this study, individuals who volunteer might have shared certain characteristics such as an enthusiasm for community service regardless of their life stage (Clary & Snyder, 1999). Although our study does not allow us to examine the way these factors come into play in the decision-making process surrounding volunteering, it is plausible that career advancement has become progressively more important in recent years as older people are increasingly faced with the prospect of continuing employment later into life for financial reasons. With regard to *well-being* in particular, previous studies show that enhanced well-being is an important value to all volunteers (e.g., Pillemer, Fuller-Rowell, Reid, & Wells, 2010). Current

volunteers might have experienced health (e.g., physical engagement) and/or well-being (e.g., social integration) benefits from their past volunteering experience, which may further motivate their volunteer commitment (Carr, Fried, & Rowe, 2015; Ho et al., 2012; Li & Ferraro, 2006).

Motivational factors do not necessarily translate to interest in actually engaging in volunteering, however. Regarding our second research question, we hypothesized that socioemotional motivations would be associated with individuals' interests in volunteering among older adults, whereas market-oriented motivations would be more salient for younger adults. Results from the regression analyses did not support this hypothesis. The community service factor was positively associated with interest in volunteering, and was the only consistent predictor across all three life stages. As all participants had volunteer experience in the past, the community service factor could be a persistent driving force of engagement in volunteer activities over the life course. Because continuity of volunteering occurs over life course transitions (e.g., adolescence to adulthood) (Oesterle et al., 2004), once developed, the desire to use one's skills and life experience for the benefit of others is more likely to persist through each life phase. Therefore, promoting such a desire early in life may be a critical component in sustaining volunteer engagement in the general population over time (Morrow-Howell & Tang, 2004). Importantly, while community service has been identified as a volunteer motivation in several previous studies (Adler, Schwartz, & Kuskowski, 2007; Lancee & Radl, 2014), the mechanism of this motivation as a driving force in shaping individuals' interests in volunteering may not be entirely related to meeting the specific needs of communities. Instead, what promotes volunteer motivation may also be related to recognitions of socioemotional gratification in earlier life stages and continuing desire to make a positive difference in their communities for generations to come (Adler et al., 2007; Carstensen, 1992). This should be further examined in subsequent research.

Moreover, two salient differences in the relationships between underlying motivations and actual interests in volunteering were discovered. First, among the young adult group, the career advancement factor was *negatively* associated with interest in volunteering. This is surprising given career advancement is a critical motivator for volunteer activities among working age adults (Okun & Schultz, 2003; Principi et al., 2012). However, individuals may face limitations in time and energy available for volunteering due to other life obligations (e.g., child care) (Oesterle et al., 2004). In other words, in this study, the career advancement factor might be an indicator of career investment and its corresponding time constraints.

Second, the well-being factor was *negatively* associated with interest in volunteering among the later adulthood group. Given well-being is a known

outcome of volunteering as well as a motivator, this finding is surprising (Carr, Fried, & Rowe, 2015; Pillemer et al., 2010). It is worth pointing out, however, that descriptive statistics showed that the later adulthood group reported generally *better* self-rated health than the younger groups ($p > .05$) in this study. As such, there might have been a selection effect in such a way that healthier older adults were more likely to volunteer in nonprofit organizations and in turn, to participate in this study (Kart & Kinney, 2001). Future research is needed to systematically compare volunteers and nonvolunteers regarding how well-being functions as a motivational factor and translates to actual interest in volunteering.

Demographics, socioeconomic characteristics, and health status also predicted interest in volunteering but the effects varied across life stages. Previous studies demonstrated that sociodemographic characteristics were powerful predictors of volunteering (e.g., Rotolo & Wilson, 2004). Our findings indicate a need for closer attention to how sociodemographic factors differentially shape individuals' interest in volunteering at each life stage (or age cohort) to develop volunteer recruitment messaging that is most appropriate for each life stage.

Third, although not examined in this study, Nevada's unique community features are worthy of a brief discussion. Nevada has one of the lowest nonprofit organization densities in the nation. Indeed, Nevada has about 20 nonprofit organizations per 10,000 residents whereas the national average is over 33 (Word & Davis, 2012). This lower density of nonprofit organizations may indicate an overall lack of organized volunteer opportunities (Rotolo & Wilson, 2012). In addition, the percentage of individuals who were born in the state of current residence is the lowest (approximately 24%) in Nevada while the national average is nearly 59% (Ren, 2011), suggesting that residents may feel less attached to the state. That is, one may argue that Nevadans are less likely to volunteer due to active migration and a weaker sense of community membership. This kind of social environment is an interesting area of inquiry for future research.

Finally, building on this study, future research should investigate state-level variability in volunteer participation rates in order to develop and promote macro-level policies that promote volunteerism. For instance, Carr, Fried, and Rowe (2015) point out the value that provision of small stipends to volunteers has provided for involvement of low-income older people in volunteering. Utilization of this approach in the Experience Corps program in Baltimore decreased barriers to engagement, and allowed groups of older people who were at highest risk for health decline to experience many significant health benefits attributed to their volunteer engagement. States that have lower rates of volunteering, and higher rates of poverty, may benefit from

implementation of these kinds of policies. Given our findings indicated that the socioemotional motivation translates into actual interest in volunteering, provision of small incentives may remove the barriers to volunteerism among lower income people who wish to engage in volunteerism.

Limitations

Two key limitations of our study merit discussion. First, the generalizability of our study is limited because we use a nonprobability sample of former and current volunteers. This is in alignment with our earlier argument on the need for additional research with diverse populations across geographic regions. Second, because our data are cross-sectional, we cannot draw conclusions about volunteers' motivations and interests over time. Grouping of life stages relied solely on age. Although life stage was distinguished according to typical life course patterns in this study, future research should explore more nuanced differentiations such as individuals' primary social roles (e.g., parenting, education, or working), health, and developmental stages. Understanding both between- and within-group variability of each age group may shed light on social and economic contexts that may be critical in developing volunteer interventions. Moreover, given our suggestion for future research on volunteers' sense of attachment to communities, the classification of life stages could be cross-examined with migration patterns in dynamic urban communities. Due to these limitations, we are unable to draw causal conclusions about how motivation shapes volunteer behaviors at different periods of the life course.

In addition to disentangling factors associated with causality in the present study, other research is needed to enhance our understanding of differential motivations associated with volunteer engagement. First, it would be beneficial to better understand how factors such as culture, family, sociodemographic factors, personality, health, and engagement in other social roles may coalesce to shape motivational pathways associated with volunteering. It is plausible that confounding factors such as age, period, and cohort (e.g., the uniqueness of the baby boomer cohort), and a series of sociodemographic characteristics explain our findings, but we are unable to disentangle these factors with the data available to us in this study (Hank & Erlinghagen, 2010; Hirshorn & Settersten, 2013). Representative longitudinal data could offer opportunities for a rigorous exploration of complex pathways between volunteer motivation, volunteer participation, and sociodemographic characteristics (e.g., competing priorities/tasks due to multiple roles) over the life course. It is also important to note that some living environments and social networks (e.g., Dury et al., 2016) might help explain some of the findings in this study.

However, detailed information on living and social environments was not available in the current data set. Finally, the definition of volunteering was limited to formal volunteering for and through nonprofit organizations, which excludes volunteerism that may happen through other organizational or informal avenues. Overall, the findings should not be applied to other types of civic engagement and informal volunteering.

Contributions

Despite these limitations, several important contributions were made to research in this area. This study identified the underlying structure of motivational factors for formal volunteering that are unique to each of three major life stages. These findings complement previous research and offer a new set of factors that can be used to understand motivational forces across life stages (i.e., The Stanford Center on Longevity Volunteer Survey; Clary et al., 1998; Okun & Schultz, 2003; Reed et al., 2013). In addition, since most previous volunteer research has examined volunteers' motivation separately from the benefits and barriers to volunteering, the findings from this study shed light on the relationship between motivations and actual interest in volunteering, which is arguably a more proximate predictor of volunteer behaviors.

There were several implications that are relevant to volunteer program development. Tang (2006) asserts that the communities, organizations, and societies should emphasize cohort-specific factors because individuals' characteristics, roles, and life events change and evolve over the life course. Our findings suggest that these dynamic changes could be addressed through interventions designed to enhance volunteer participation that include messaging about volunteer engagement that taps into the different motivational factors for each life stage group. For example, younger volunteers seem to be motivated by factors that may enhance their future career development, but they are perhaps limited by time constraints related to their jobs as well. Therefore, it may be the case that programs that are initiated by or are supported by employers could be more successful than programs that are disconnected from the career lives of younger and middle-aged adults. Additional research should clarify how employer-initiated volunteering is perceived (e.g., career advancement opportunity vs. coercion) by young employees to better understand the volunteer motivations in the earlier adulthood.

Our research suggests that older adults are motivated by generative factors. As such, messaging/acknowledging the contributions made by older volunteers can enhance subsequent volunteer participation. However, older people who are motivated by generative outcomes are not necessarily more interested in volunteering than those motivated by other factors. As a result,

volunteer messaging designed to highlight the benefits participants can make to the community alongside potential generative outcomes may be particularly effective. Finally, the study design and methodological approach we used to assess the underlying structure of volunteer motivations and its relationship to actual interest in volunteering can be replicated in other nonprofit organizations and communities. Our measures can help organizations and communities learn about important barriers and facilitators of engagement among members of their own communities, and help inform the efforts they make to enhance participation. Incorporating input from community stakeholders and nonprofit organizations is likely to enhance the success of local volunteer efforts, and help bring attention to addressing needs within the larger community.

Conclusion

This study identified the three underlying motivations for individuals' volunteer engagement across young, middle, and older adults: community service, career advancement, and well-being. Simultaneously, two unique motivations, social networking for the young and middle adulthood groups and generativity for the later adulthood group, were also identified. Of those, only the community service motivation was consistently and positively associated with individuals' actual interest in volunteering in all three groups. In contrast, career advancement among the younger adulthood group and well-being among the later adulthood group were negatively associated with their interest in volunteering. These results support the tenets of SST and its role in shaping motivations to volunteer. These findings can be used to inform strategies that promote volunteerism, which have potential for very positive repercussions for both individuals and societies. Assessment of individuals' underlying motivations and interests in volunteering can help us design more effective volunteer recruitment/promotion programs and policies that will benefit individuals and communities. Future research should expand the scope of inquiry to different kinds of organizations and communities, and develop volunteer programs that are sensitive to individuals at different stages of the life course.

Acknowledgments

The authors thank the Stanford Center on Longevity for granting the use of survey tool for this study. The authors thank the United Way of Southern Nevada, Nevada Volunteers: The Governor's Commission on Service, and the participating Volunteer Coordinators and Nevada's nonprofit organizations for providing input throughout the project and for facilitating data collection.

Authors' Note

University of Nevada Las Vegas Institutional Review Board protocol number 737179-1

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This study is part of the Volunteerism Research Initiative at the University of Nevada, Las Vegas, and was funded in part by Drs. Gard and Florence Jameson.

References

- Adler, G., Schwartz, J., & Kuskowski, M. (2007). An exploratory study of older adults' participation in civic action. *Clinical Gerontologist, 31*, 65-75. doi:10.1300/J018v31n02_05
- Brayley, N., Obst, P., White, K. M., Lewis, I. M., Warburton, J., & Spencer, N. M. (2014). Exploring the validity and predictive power of an extended Volunteer Functions Inventory within the context of episodic skilled volunteering by retirees. *Journal of Community Psychology, 42*, 1-18. doi:10.1002/jcop.21583
- Brown, T. A. (2006). *Confirmatory factor analysis for applied research*. New York, NY: Guilford Press.
- Carr, D. C., Fried, L. P., & Rowe, J. W. (2015). Productivity & engagement in an aging America: The role of volunteerism. *Daedalus, 144*(2), 55-67. doi:10.1162/DAED_a_00330
- Carr, D. C., King, K., & Matz-Costa, C. (2015). Parent-teacher association, soup kitchen, church, or the local civic club? Life stage indicators of volunteer domain. *The International Journal of Aging & Human Development, 80*, 293-315. doi:10.1177/0091415015603608
- Carstensen, L. L. (1992). Social and emotional patterns in adulthood: Support for socioemotional selectivity theory. *Psychology and Aging, 7*, 331-338. doi:10.1037/0882-7974.7.3.331
- Champely, S. (2012). *pwr: Basic functions for power analysis*. Retrieved from <http://CRAN.R-project.org/package=pwr>
- Clary, E. G., & Snyder, M. (1999). The motivations to volunteer: Theoretical and practical considerations. *Current Directions in Psychological Science, 8*, 156-159. doi:10.1111/1467-8721.00037
- Clary, E. G., Snyder, M., & Ridge, R. D. (1992). Volunteers' motivations: A functional strategy for the recruitment, placement, and retention of volunteers. *Nonprofit Management & Leadership, 2*, 333-350. doi:10.1002/nml.4130020403

- Clary, E. G., Snyder, M., Ridge, R. D., Copeland, J., Stukas, A. A., Haugen, J., & Miene, P. (1998). Understanding and assessing the motivations of volunteers: A functional approach. *Journal of Personality and Social Psychology, 74*, 1516-1530. doi:10.1037/0022-3514.74.6.1516
- Corporation for National & Community Service. (2014). *Volunteering and civic engagement in the United States*. Retrieved from <http://www.volunteeringinamerica.gov/national>
- Corporation for National & Community Service. (2015). *Volunteering and civic life in America, 2015*. Available from <https://www.volunteeringinamerica.gov/>
- Costello, A. B., & Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research & Evaluation, 10*(7), 1-9.
- Davila, M. C., & Diaz-Morales, J. F. (2009). Age and motives for volunteering: Further evidence. *Europe's Journal of Psychology, 5*(2), 82-95. doi:10.5964/ejop.v5i2.268
- DeMaris, A. (2004). *Regression with social data: Modeling continuous and limited response variables*. Hoboken, NJ: Wiley-Blackwell.
- Dittman-Kohli, F., & Westerhof, G. J. (1999). The personal meaning system in a life-span perspective. In G. T. Reker & K. Chamberlain (Eds.), *Exploring existential meaning: Optimizing human development across the life span*. Thousand Oaks, CA: Sage. p. 107-122
- Dury, S., Willems, J., De Witte, N., De Donder, L., Buffel, T., & Verté, D. (2016). Municipality and neighborhood influences on volunteering in later life. *Journal of Applied Gerontology, 35*, 601-626. doi:10.1177/0733464814533818
- Flanagan, C., & Levine, P. (2010). Civic engagement and the transition to adulthood. *The Future of Children, 20*, 159-179.
- Hank, K., & Erlinghagen, M. (2010). Dynamics of volunteering in older Europeans. *The Gerontologist, 50*, 170-178. doi:10.1093/geront/gnp122
- Hendricks, J., & Cutler, S. J. (2004). Volunteerism and socioemotional selectivity in later life. *The Journals of Gerontology, Series B: Psychological Sciences & Social Sciences, 59*, S251-S257. doi:10.1093/geronb/59.5.S251
- Hirshorn, B. A., & Settersten, R. A., Jr. (2013). Civic involvement across the life course: Moving beyond age-based assumptions. *Advances in Life Course Research, 18*, 199-211. doi:10.1016/j.alcr.2013.05.001
- Ho, Y. W., You, J., & Fung, H. H. (2012). The moderating role of age in the relationship between volunteering motives and well-being. *European Journal of Ageing, 9*, 319-327. doi:10.1007/s10433-012-0245-5
- Kart, C. S., & Kinney, J. M. (2001). *The realities of aging: An introduction to gerontology* (6th ed.). Needham Heights, MA: Allyn & Bacon.
- Lancee, B., & Radl, J. (2014). Volunteering over the life course. *Social Forces, 93*, 833-862. doi:10.1093/sf/sou090
- Li, Y., & Ferraro, K. F. (2006). Volunteering in middle and later life: Is health a benefit, barrier or both? *Social Forces, 85*, 497-519. doi:10.1353/sof.2006.0132
- Manning, L. K. (2010). Gender and religious differences associated with volunteering in later life. *Journal of Women & Aging, 22*, 125-135. doi:10.1080/08952841003719224

- McDonald, R. P. (1999). *Test theory: A unified treatment*. Mahwah, NJ: Lawrence Erlbaum.
- Morrow-Howell, N. (2010). Volunteering in later life: Research frontiers. *The Journals of Gerontology, Series B: Psychological Sciences & Social Sciences, 65B*, 461-469. doi:10.1093/geronb/gbq024
- Morrow-Howell, N., & Tang, F. (2004). *Youth service and elder service in comparative perspective* (Working Paper No. 04-10). St. Louis, MO: Global Service Institute, Center for Social Development, Washington University, St. Louis.
- Musick, M. A., & Wilson, J. (2003). Volunteering and depression: The role of psychological and social resources in different age groups. *Social Science & Medicine, 56*, 259-269. doi:10.1016/S0277-9536(02)00025-4
- National Center for Education Statistics. (2016). *Rates of high school completion and bachelor's degree attainment among persons age 25 and over, by race/ethnicity and sex: Selected years, 1910 through 2015*. Retrieved from http://nces.ed.gov/programs/digest/d15/tables/dt15_104.10.asp?current=yes
- Oesterle, S., Johnson, M. K., & Mortimer, J. T. (2004). Volunteerism during the transition to adulthood: A life course perspective. *Social Forces, 82*, 1123-1149. doi:10.1353/sof.2004.0049
- Okun, M. A., Barr, A., & Herzog, A. R. (1998). Motivation to volunteer by older adults: A test of competing measurement models. *Psychology and Aging, 13*, 608-621. doi:10.1037/0882-7974.13.4.608
- Okun, M. A., & Schultz, A. (2003). Age and motives for volunteering: Testing hypotheses derived from socioemotional selectivity theory. *Psychology and Aging, 18*, 231-239. doi:10.1037/0882-7974.18.2.231
- Pillemer, K., Fuller-Rowell, T. E., Reid, M. C., & Wells, N. M. (2010). Environmental volunteering and health outcomes over a 20-year period. *The Gerontologist, 50*, 594-602. doi:10.1093/geront/gnq007
- Principi, A., Chiatti, C., Lamura, G., & Frerichs, F. (2012). The engagement of older people in civil society organizations. *Educational Gerontology, 38*, 83-106. doi:10.1080/03601277.2010.515898
- Qualtrics. (2013). Available from <http://www.qualtrics.com>
- R Core Team. (2013). *R: A language and environment for statistical computing*. Vienna, Austria: R Foundation for Statistical Computing. Available from <http://www.R-project.org/>
- Reed, A. E., Carr, D. C., Rowe, J. W., & Carstensen, L. L. (2013). *Volunteering across adulthood: Motivations and preferences reflect age-related goal priorities*. Paper presented at the Gerontological Society of America Annual Scientific Meeting, New Orleans, LA.
- Ren, P. (2011). *Lifetime mobility in the United States: 2010*. Retrieved from <https://www.census.gov/prod/2011pubs/acsbr10-07.pdf>
- Revelle, W., & Zinbarg, R. E. (2009). Coefficients alpha, beta, omega, and the glb: Comments on Sijtsma. *Psychometrika, 74*, 145-154.
- Rotolo, T., & Wilson, J. (2004). What happened to the "long civic generation"? Explaining cohort differences in volunteerism. *Social Forces, 82*, 1091-1121. doi:10.1353/sof.2004.0051

- Rotolo, T., & Wilson, J. (2012). State-level differences in volunteerism in the United States: Research based on demographic, institutional, and cultural macrolevel theories. *Nonprofit and Voluntary Sector Quarterly, 41*, 452-473. doi:10.1177/0899764011412383
- Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology, 69*, 719-727. doi:10.1037/0022-3514.69.4.719
- Settersten, R. A. (2003). *Invitation to the life course: Toward new understandings of later life*. New York, NY: Baywood Publishing.
- Tang, F. (2006). What resources are needed for volunteerism? A life course perspective. *Journal of Applied Gerontology, 25*, 375-390. doi:10.1177/0733464806292858
- Venables, W. N., & Ripley, B. D. (2002). *Modern applied statistics with S* (4th ed.). New York, NY: Springer.
- Word, J. K. A., & Davis, S. (2012). *Nonprofit sector and philanthropy in Nevada*. Retrieved from http://cdclv.unlv.edu/healthnv_2012/nonprofits.pdf

Author Biographies

Takashi Yamashita, PhD, is an assistant professor of sociology at University of Nevada, Las Vegas. His primary areas of research are social determinants of health and well-being, wider benefits of lifelong learning, geographic access to health resources, and health literacy in older population.

Jennifer R. Keene, PhD, is a professor of sociology, and an executive associate dean of the college of liberal arts at University of Nevada, Las Vegas. Her recent research focused on gender and age stratification, work-family balance as well as the effects of spousal caregiving on survivors' well-being in widowhood.

Chi-Jung Lu, PhD, is a project manager in the Nevada Volunteerism Research Initiative at University of Nevada Las Vegas. Her primary areas of research are the online information source of long-term care service, and role of social media in the nursing home care decision making.

Dawn C. Carr is an assistant professor at Florida State University in the Department of Sociology and the Pepper Institute for Aging and Public Policy. Her research focuses on the factors that bolster older adults' ability to remain healthy and active in later life.