

Differential Benefits of Volunteering Across the Life Course

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Objectives. Studies often fail to adequately test the causal relationship between volunteering and well-being. Yet the media and empirical research have focused attention on the impact of volunteering on the well-being of elderly persons. This study addresses two questions: First, does volunteering improve the psychological and physical well-being of elderly persons? Second, do elderly volunteers experience different benefits than younger adults?

Methods. Using nationally representative panel data, I assessed the long-term impact of volunteering on the life satisfaction and perceived health of persons aged 60 and over. I then compared ordinary least squares regression results for seniors with those for younger adults.

Results. I found that older volunteers experienced greater increases in life satisfaction over time as a result of their volunteer hours than did younger adult volunteers, especially at high rates of volunteering. Older adults experienced greater positive changes in their perceived health than did younger adult volunteers.

Discussion. The type of volunteer work in which older and younger adults engage may be part of the reason for these differential effects. But the context in which older and younger adults volunteer and the meaning of their voluntarism are more likely explanations. Researchers should take into account volunteer commitment when studying volunteering's effect on well-being, not simply volunteer role.

THE media are replete with representations of volunteering as critical to the well-being of the nation as a whole, and as beneficial to the individual volunteer. Particular attention has been paid in both the popular press and academic outlets to the potential contributions of volunteering to the well-being of elderly persons. In fact, past research has suggested that volunteering does improve the physical and psychological well-being of elderly persons by maintaining self-esteem, life satisfaction, access to support systems, and activity level (e.g., Bond, 1982; Duncan & Whitney, 1990; Dye, Goodman, Roth, Bley, & Jensen, 1973; Hunter & Linn, 1980-1981; Moen, Dempster-McClain, & Williams, 1989, 1992; Musick, Herzog, & House, 1999; Oman, Thoresen, & McMahan, 1999; Perry, 1983; Young & Glasgow 1998). However, although suggestive, there are a number of ways in which previous studies have failed to adequately address the question of whether voluntarism increases well-being among elderly persons. Some studies of volunteering have focused on perceived benefits rather than actual outcomes (e.g., Hodgkinson, 1995; Hodgkinson & Weitzman, 1990, 1992); others have used nonrepresentative samples and/or failed to include a control group of nonvolunteers (e.g., Fengler, 1984; Hanks, 1981; Hanks & Eckland, 1978; Young & Glasgow 1998). Still fewer studies have included data at more than one time point (but see Moen et al., 1989, 1992; Musick et al., 1999; Oman, Thoresen, & McMahan, 1999); therefore, it is not known whether volunteering is the cause of improved well-being among seniors or a consequence of a higher level of well-being to begin with.

As Altermatt (1988) has pointed out, gerontological studies often focus solely on older persons either by limiting the

survey sample to older ages or by choosing older respondents from a broader dataset for secondary analysis. This has been the case with much of the research on volunteering and its benefits. This focused attention on volunteering among elderly persons begs the question of whether volunteering among elderly persons is in any way unique in its benefits. Are the benefits of volunteering to elderly persons any different from those experienced by younger volunteers?

In this article, I examine the impact of volunteering on physical and psychological well-being among elderly persons and contrast these benefits with those experienced by younger volunteers. Drawing from several theoretical perspectives, I propose and test alternative hypotheses as to the magnitude of volunteering's impacts on the well-being of elderly persons versus younger adults. I address the weaknesses of much previous research by using nationally representative panel data from the *Americans' Changing Lives* 1986 and 1989 surveys. I conclude by discussing gaps in the current knowledge about volunteering and, therefore, its effects.

Volunteering and Well-Being Across the Life Course

At any given time, approximately 50% of Americans engage in volunteer work (Hodgkinson & Weitzman, 1990; Sundeen, 1992). Moreover, 70% of adults report volunteering at some point in their lifetime (Hodgkinson, 1995). In its broadest conceptualization, volunteer work is generally understood to be unpaid work on the part of an individual or a group of individuals with the intent of benefitting others (Loeser, 1974; Scheier, 1982; Van Til, 1988). Like Tilly and Tilly (1994), I further distinguish volunteer work as unpaid work on behalf of those with whom one has no contractual, familial, or friendship obligation.

Evidence of age differences in volunteering suggests that participation may be more normative at various points in the life course. Although voluntary work increases with age (Curtis, Grabb, & Baer, 1992; Janoski & Wilson, 1995; Knoke & Thompson, 1977; Umberson, Chan, House, Hopkins, & Slaten, 1996), the probability of being engaged in volunteer work drops off at the older ages, making it most likely in middle age (Fischer & Schaffer, 1993; Hayghe, 1991; Kim & Hong, 1998). However, elderly persons who do volunteer invest more hours into their volunteer work than do younger volunteers (Gallagher, 1994), probably at least in part because they have more uncommitted time.

In addition to the age differences in time spent volunteering, elderly volunteers donate their time to different types of organizations than do younger volunteers. Younger volunteers often engage in volunteering as an extension of their other roles, participating in their local Parents and Teachers Association, for example (Sundeen, 1990; Wilson & Musick, 1997). By contrast, a recent study by the Independent Sector (1998) found that only 22% of elderly volunteers work with an educational institution. In Sundeen's (1990) study of predictors of volunteer participation, elderly adults were also less likely to donate time to a political organization than were their younger counterparts. Religious-based volunteering is an especially popular choice among elderly persons; 65% donate time to their church or synagogue (Independent Sector, 1998). Younger volunteers are most likely to focus their efforts on religious organizations when they are married and have dependent, especially preschool aged, children (Sundeen, 1990).

Thus, volunteer activity varies across the life course in terms of who takes on the volunteer role, how much time is committed, and the types of organizations that benefit from volunteers' efforts. Most research on the impact of volunteering has measured the simple absence or presence of the volunteer role (e.g., Krause, Herzog, & Baker, 1992; McIntosh & Danigelis, 1995), failing to take into account the fact that volunteers may be more or less active. The handful of studies that have considered the impact of volunteer commitment include hours volunteered with the volunteer role measure in multivariate analyses. These studies have found no significant association between volunteer hours and well-being (e.g., Musick et al., 1999). On the other hand, Rietschlin (1998) and Musick et al. (1999) found that the range of types of organizations to which a volunteer donates time is related to well-being. There is no consensus on how volunteering should be measured in analyses of its relationship with individual well-being.

Most studies have inferred that volunteering improves well-being, while not testing causal order directly by using longitudinal data collected from representative community samples. In only a handful of published studies is the question of cause and effect addressed directly. Phyllis Moen and her colleagues (1989, 1992) found that participation in voluntary associations has a significant positive effect on physical health and longevity in their longitudinal analyses of the impact of multiple role involvement among their community sample of women. In fact, of all the social roles they included in their analyses, membership in voluntary associations has the single largest effect on both physical

health and longevity. However, Moen and colleagues could not disentangle what kind of activities occur in these organizations; therefore, the impact of membership may not be representative of the effects of volunteer work. Furthermore, their study did not include men.

Two studies found that volunteering is negatively related to mortality. Oman and colleagues (1999) reported that elder volunteers in a community sample experienced 44% lower mortality rates over a 5-year period than those who did not volunteer. This difference was only partially explained by health habits, physical functioning, religious attendance, and social support. Musick and colleagues (1999) found that volunteering is negatively associated with mortality among elderly persons in a national sample. Both studies took into account time spent in volunteer work and the range of organizations for which individuals volunteered. However, as they limited their sample to persons over 65, their results cannot be generalized to younger adults. Furthermore, they focused on only one measure of well-being. Yet, despite their focused analyses, these studies provided strong evidence that volunteering does in fact have an impact on physical health. Perhaps if volunteering affects mortality, it also affects physical and psychological well-being.

Theoretical Perspectives and Hypotheses

There are reasons to expect that it would. Beginning with Durkheim (1951), who emphasized the importance of primary group ties, sociologists have argued that some positions in society foster a subjective sense of alienation, or disconnection with self and society, whereas others promote a sense of attachment or integration (Mirowsky & Ross, 1986; Seeman, 1959). Seeman (1959) argued that there are five major types of alienation that lead to psychological distress: powerlessness, isolation, self-estrangement, meaninglessness, and normlessness. In other words, the extent to which individuals feel they control the outcomes of their lives, believe they are part of a supportive community, find their daily work rewarding, have a sense of purpose to their lives, and expect that rewards can be achieved through socially normative means affects their psychological well-being. If volunteer work facilitates the development of these "psychosocial resources" among participants, the volunteer role should have a positive effect on individual well-being for both older and younger adults. Furthermore, the more time one commits to volunteer work, the more access one should have to these benefits. How the range of volunteer work performed should relate to its benefits is less clear. On the one hand, volunteering for a broad range of types of organizations should expose the volunteer to greater social networks and reinforce the belief that ends can be achieved through socially acceptable means. On the other hand, volunteers may feel pulled by their commitments to multiple organizations and, therefore, less in control of their lives. In sum, no matter how volunteering is measured it should be positively related to well-being.

Activity theory.—Activity theory (Gubrium, 1972, 1973; Herzog & House, 1991) suggests that elderly people who remain productive and maintain or create new social networks do better than do those who disengage from society

and social commitments (Erikson, Erikson, & Kivnick, 1986; Hochschild, 1975; Lemon, Bengtson, & Peterson, 1972). There is ample evidence for the activity theory perspective in social gerontology (see, e.g., Dorfman, Kohout, & Heckert, 1985; George, 1990; Kilty & Behling, 1985; MacLean, 1982; McPherson & Guppy, 1979). Overall, Adelman (1994a, 1994b) found that the number of social roles senior citizens occupy is negatively related to their level of depression and positively related to physical health. If the predictions of activity theory hold, volunteering among elderly persons should have a positive effect on psychological and physical well-being over time. Furthermore, the more time they commit, the greater the impact of volunteering on well-being should be. Because the range of commitments is correlated with time committed (Musick et al., 1999), the broader the range, the greater the benefits should be.

As the literature review suggests, there are several reasons to expect that elderly adults may experience different effects as a result of their volunteerism than do younger adults. First, elderly adults are more active volunteers than are younger adults. If the predictions of activity theory hold, therefore, being a volunteer should be more positively associated with well-being among elderly persons than among younger adults because elderly volunteers are more active than younger volunteers. Second, elderly persons are less likely to be involved in other activities, such as employment and child rearing, and therefore their volunteer work may have a greater effect on their well-being.

Role theory.—However, Herzog, House, and Morgan (1990) found that it is not only the roles individuals hold but also the congruity between those role sets and individual preferences that determine individual well-being. Herzog and House (1991) went on to argue that it may therefore be the discretionary nature of the activities, like voluntarism, in which seniors engage that make their activities particularly beneficial. As discussed above, younger adults are more likely to engage in volunteering that is an extension of their work and child-care responsibilities (Sundeen, 1990; Wilson & Musick, 1997)—and therefore may experience volunteering as less discretionary. Although controlling for family responsibilities and employment should take into account some of this difference in the contexts in which elderly and younger adults volunteer, it cannot account for the fact that the nature of the activities is different. Whereas young adults may be more likely to experience the role strain that results with conflicts between responsibilities from multiple roles (Goode, 1960; Merton, 1957), this perspective argues that even in the absence of conflicts the meaning of volunteering is different for elderly persons than for younger adult volunteers. As a result, the effect of the volunteer role and volunteer commitment on well-being among elderly persons should be greater than its effect on younger adults. Range of types of organizations should also be more strongly associated with well-being among older adults than among younger adults.

Data

This research used the first two waves of data from the *Americans' Changing Lives* (ACL) survey, face-to-face in-

terviews conducted in the home in 1986 and 1989 (House, 1989a, 1989b). Although a three-wave panel analysis would be preferable, the third wave of the data is not yet publicly available. The original sample consisted of 3,617 adults aged 25 years or older. Black people and people over age 60 were sampled at twice the rate of non-Blacks and people under 60. A 21% attrition rate at Time 2 led to a final sample of 2,867 respondents who were successfully interviewed at both time points and not missing data on the measures of well-being, volunteering, or age.

MEASURES

Dependent Variables

In this research, I used two measures of well-being. First, I assessed the effect of volunteering on life satisfaction, one of the most commonly measured outcomes in research on the benefits of volunteering and in research on psychological well-being. Second, I measured physical well-being by using perceived health. Previous studies have shown that self-reported health is highly correlated with physicians' assessments and with measures of morbidity and mortality (Idler & Kasl, 1991; Mossey & Shapiro, 1982) and is therefore a valid and reliable measure of physical well-being (Davies & Ware, 1981; Maddox & Douglas, 1973). Although psychological and physical well-being are reciprocally related (Gove & Hughes, 1979), they are different constructs and therefore not perfectly correlated.

Life satisfaction.—Respondents were asked, "Now please think about your life as a whole. How satisfied are you with it—are you . . . ?" Response categories ranged from not at all satisfied (1) to completely satisfied (5).

Perceived health.—Respondents were asked, "How would you rate your health at the present time?" Responses were coded from 1 (poor) to 5 (excellent).

Independent Variables

Most studies have examined the impact of the presence or absence of the volunteer role on well-being. In this study, I compared and contrasted the presence or absence of the volunteer role with the extent of individuals' involvement in voluntarism.

Volunteer role.—Respondents were first asked if, in the past 12 months, they had done any volunteer work for "1) a church, synagogue or other religious organization; 2) a school or educational organization; 3) a political group or labor union; 4) a senior citizen group or related organization; and/or 5) any other national or local organization, including United Fund, hospitals, and the like." A dummy variable was created for the volunteer role, coded 1 if the respondent reported performing volunteer work for any organization and 0 if the respondent performed no volunteer work.

Volunteer hours.—After having identified the type of organization for which they had performed volunteer work, if any, respondents were asked to report the number of

hours they spent on volunteer work during the past 12 months. Original response categories included (0) none, (1) less than 20 hours, (2) 20 to 39 hours, (3) 40 to 79 hours, (4) 80 to 159 hours, and (5) 160 hours or more. Responses were recoded to the midpoint of each response category. Category 5 was recoded to 200 hours (Musick et al., 1999). For the regression analyses, the measure was centered around the mean in order to avoid problems of multicollinearity when testing curvilinear relationships and interaction effects (Aiken & West, 1991).

Range of volunteering.—Two dummy variables were computed for range of types of organizations for which the respondent performed volunteer work in the past 12 months. One organization was coded 1 if the respondent reported performing volunteer work for just one organization, 0 if not. More than one organization was coded 1 if the respondent performed volunteer work for more than one organization, 0 if not. Rietschlin (1998) found that the benefits of participation in increasing numbers of types of organizations drops off significantly after two.

Age.—Age was coded in years. A recent study by Gendell and Siegel (1996) documented that retirement is beginning younger today than at any other time in the latter half of this century for both men and women, Blacks and Whites. The median age at retirement for men and women in the late 1980s was approximately 63 years, whereas between 61% and 75% of White and Black men and women in 1993 had received social security retirement benefits by 62–64 years. Therefore, the sample was stratified into older adults (age 60 and older) and younger adults (under 60) in order to compare adults of retirement age with younger adults who face greater expectations to participate in the labor force. The interval measure of age was also included in the analyses to control for variations in age within each age group.

Control Variables

Social roles.—*Living as Married* was coded 1 for those who were married or living together with someone as married and 0 for those who were not married or cohabiting. *Parent* was coded 1 for those with children aged 17 or younger in the household versus 0 for those with no dependent children in the home. *Employed* contrasted those employed full or part time (1) with those who were not employed (0).

Socioeconomic status.—*Education* was coded intervally to represent the highest year of schooling completed and ranged from 0 to 17. Missing values were coded to the mean. *Family income* was the total gross income of the respondent and spouse. Income was originally coded in categories ranging from (1) less than \$5,000 to (10) over \$80,000. I used the imputed income measure calculated by the ACL staff, which assigns income values to the midpoint of each category. *Economic strain* was a measure of how difficult it was for respondents and/or their family to meet the monthly payments on their bills. Response categories ranged from (0)

not difficult at all to (4) extremely difficult. Missing values were recoded to the mean.

Functional impairment.—Respondents were asked if they had any difficulties, and if so how much, in performing a variety of daily tasks, including bathing by themselves, climbing a few flights of stairs, walking several blocks, and doing heavy work around the house such as shoveling snow or washing walls. Response categories included (0) no difficulty, (1) a little, (2) some, (3) a lot, and (4) cannot do. I used the imputed version of functional impairment computed by the ACL staff, which is an index ranging from 0 to 4, with 4 representing a great deal of functional difficulty.

Social integration.—This was measured in two ways. To measure informal social integration, respondents were asked how often they talked with friends and family members by phone and how often they visited with friends and family. Responses included (1) never, (2) less than once a week, (3) 2–3 times a week, (4) once a day, and (5) more than once a day. The two questions were averaged. Formal social integration was measured by the respondent's reported attendance at religious services. Responses included (1) never, (2) less than once a week, (3) two to three times a week, (4) once a day, and (5) more than once a day.

Social support.—Respondents were asked, "On the whole, how much do your friends and relatives make you feel loved and cared for?" and "How much are these friends and relatives willing to listen when you need to talk about your worries or problems?" Response categories included (1) a great deal, (2) quite a bit, (3) some, (4) a little, and (5) not at all. Responses were reverse-coded, and the two questions were averaged.

Mastery.—Respondents were asked whether they (1) strongly agree, (2) somewhat agree, (3) somewhat disagree, or (4) strongly disagree with each of the following statements: "Sometimes I feel that I am being pushed around in life" and "There is really no way that I can solve the problems I have." The two questions were averaged.

Sociodemographic characteristics.—*Sex* was coded 1 for women and 0 for men. *Race* was coded 1 for Blacks and 0 for Whites and others. Members of other racial/ethnic groups made up only 5.8% of the sample; each group made up no more than 2.2% of the sample.

ANALYTICAL STRATEGY

First, I present descriptive statistics to illustrate differences between volunteers and nonvolunteers aged 60 and older and under 60. To test the effects of volunteering on the well-being of older versus younger adults, I present net effects models, estimating life satisfaction and perceived health in 1989, controlling for each measure of well-being at Time 1. Previous studies have found no significant effect of volunteer time when time is included in the same model as the volunteer role. I estimated models with each measure separately because the vast majority of volunteers commit a small amount of time to their volunteer work. Therefore,

multicollinearity is a potential problem and may explain previous insignificant findings. Although the sample is stratified by age, I included the interval measure of age to control for variations in age within each group. Because ordinary least squares (OLS) regression analyses can be problematic with ordinal-level outcomes (Long, 1997), the results presented here were replicated by using Stata to estimate ordered logit models. As the results did not vary, I present the OLS results here. The significance of differences in the effects of volunteering across the two age groups were tested with a *t* statistic (Jaccard, Turrisi, & Wan, 1990). To test for the effects of sample attrition on the observed relationships, I replicated the analyses presented here by using Heckman's probit-based lambda procedure (Berk 1983; Heckman 1979), with the hazard of dropping out of the sample calculated separately for individuals over the age of 60 and those under 60 (available from me on request).

RESULTS

Forty-seven percent of the respondents had engaged in some type of volunteer work during the past year when interviewed in 1986 and 1989. Forty-eight percent of young adults and 39% of older adults volunteered (see Table 1). Older adults were, however, more likely to be active volunteers. Thirty-one percent of older volunteers reported performing 80 or more volunteer hours in the past 12 months, in contrast to 24% of younger volunteers. Thirty-four percent of younger volunteers and 29% of older volunteers reported performing fewer than 20 hours of volunteer work over the course of the year. In 1986, older volunteers performed approximately 72 hours of volunteer work, whereas younger volunteers donated about 63 hours ($p < .05$). In other words, elderly persons worked 45 minutes more per month on average. The difference was even greater in 1989, when the average hours for younger adults dropped to approximately 54 hours, or from 5.25 to 4.5 hours per month.

Although there were no significant differences between elder volunteers and younger volunteers in range of volunteering, there were significant differences in the types of organizations for which older and younger adults volunteered. As previous studies have documented, religion-based volunteering was the most common, especially among elderly persons. Sixty-six percent of older adults participated in volunteer work at their church or synagogue in contrast to approximately half of younger adults ($p < .001$). Seniors were also more likely to volunteer at senior centers ($p < .001$), whereas younger adults were significantly more likely to volunteer for a school or other educational institution ($p < .001$). A large proportion of adults in each age group stated that they volunteer for another type of organization, like the United Way.

Tests of the relationships between volunteering and the control variables confirmed most previous findings. However, in contrast to some previous studies I found that Blacks in both age groups were significantly less likely to volunteer than their non-Black counterparts. In 1986, 32% of Blacks over age 60 volunteered as compared with 40% of Whites and others; similarly, 42% of Blacks under age 60 volunteered compared with 49% of non-Blacks ($p < .05$).

These findings are likely the result of differences in measurement of volunteering; previous studies examining racial differences have focused on membership in voluntary associations that are service oriented but may not engage solely in volunteer work (e.g., Cohen & Kapsis, 1978; Florin, Jones, & Wandersman, 1986; Williams, Babchuck, & Johnson, 1973). In fact, many of the organizations included in these studies engage in community organizing and political activism, which may explain why Blacks in these studies reported higher levels of involvement. Further research is needed to clarify the relationship between race and volunteer work. As have previous studies (e.g., Curtis et al., 1992; Janoski & Wilson, 1995; Kim & Hong, 1998; Umberson, Chen, House, Hopkins, & Slaten, 1996; Sundeen, 1992), I found mixed results among men and women. Women over age 60 were no more likely to volunteer than their male counterparts and reported no greater commitments of volunteer time. Conversely, although women under age 60 were more likely to volunteer ($p < .05$), men in this age group contributed significantly more volunteer time when they did volunteer than their female counterparts (70 hours vs 57 hours, $p < .001$). All other relationships were consistent with the findings of previous studies. Volunteers in both age groups were younger and had fewer functional impairments, were more likely to be married and to be employed, had higher levels of education and family income, reported less economic strain, were more socially integrated with family and friends, attended religious services more often, and had higher perceived levels of social support and mastery (see Table 1). Among young adults, volunteers were more likely to have children than were nonvolunteers.

The Effect of Volunteering on Elderly Persons

Older adults who did not volunteer reported significantly worse health than did their volunteering counterparts in 1986 and 1989 ($p < .001$; see Table 1). Senior volunteers also reported higher levels of life satisfaction than nonvolunteers at both time points, although the difference was only significant at Time 2 ($p < .05$). Why did elderly volunteers experience higher levels of well-being than nonvolunteers? Was it a result of their volunteer activities, or was it simply that volunteers have fewer functional impairments, are more socially integrated, and have higher levels of socioeconomic status than nonvolunteers, all factors that are positively associated with well-being? To answer these questions, I used OLS regression analysis to estimate the net effect of volunteering and volunteer commitment in 1986 on life satisfaction and perceived health, respectively, in 1989.

No matter how volunteering was measured, it was positively associated with life satisfaction and perceived health among older adults (see Tables 2 and 3). It was not simply the case that volunteers are the kind of people who are more satisfied with their lives and healthier in the first place. In fact, additional analyses tested whether well-being increased volunteering at Time 2; the results were insignificant (results available from me), although functional impairment was an important predictor of volunteer commitment in all the models. Thus, although physical limitations may restrict volunteer activity, physical and psychological well-being do not predict volunteering.

Table 1. Descriptive Statistics for Older and Younger Adults by Volunteer Status at Time 1: Americans' Changing Lives Survey

	Volunteers 1986 ^a				Nonvolunteers 1986 ^b			
	Older adults (60 years or older)		Younger adults (25–59 years)		Older adults (60 years or older)		Younger adults (25–59 years)	
	mean	SD	mean	SD	mean	SD	mean	SD
Volunteer commitment 1986								
Volunteer hours 1986	72.41*	70.24	63.24	65.89	—	—	—	—
Volunteer hours 1989	72.88***	78.19	54.26	66.82	6.90***	27.59	11.06***	31.54
Range of volunteerism 1986								
One organization	0.54	0.50	0.53	0.50	—	—	—	—
More than one organization	0.46	0.50	0.47	0.50	—	—	—	—
Type of volunteerism 1986								
School	0.16***	0.36	0.50	0.50	—	—	—	—
Church	0.66***	0.47	0.50	0.50	—	—	—	—
Political organization	0.17	0.38	0.18	0.38	—	—	—	—
Senior center	0.28***	0.45	0.16	0.37	—	—	—	—
Other organization	0.43	0.50	0.38	0.49	—	—	—	—
Well-being								
Life satisfaction 1986	4.03***	0.83	3.82	0.76	3.92	0.96	3.59***	0.88
Life satisfaction 1989	5.64***	1.49	5.27	1.37	5.38*	1.62	4.90***	1.45
Perceived health 1986	3.52***	1.03	3.97	0.87	3.09***	1.11	3.82***	1.04
Perceived health 1989	3.40***	1.01	3.76	0.87	2.93***	1.10	3.56***	1.03
Control variables								
Age	68.68***	6.21	38.66	8.89	70.21**	7.29	39.21	10.21
Black	0.07	0.26	0.09	0.29	0.10	0.30	0.13*	0.33
Female	0.59	0.49	0.54	0.50	0.61	0.49	0.48*	0.50
Functional impairment	1.36***	0.74	1.08	0.40	1.72***	1.02	1.18***	0.60
Living as married	0.72***	0.45	0.82	0.39	0.56***	0.50	0.72***	0.45
Dependent children	0.04***	0.20	0.65	0.49	0.05	0.21	0.53***	0.50
Education	12.09***	3.19	13.67	2.46	10.19***	3.35	12.43***	2.78
Employed	0.32***	0.47	0.86	0.35	0.21***	0.40	0.78***	0.42
Family income	25,814.05***	22,770.50	39,226.24	24,519.97	18,565.79***	20,363.47	30,321.41***	22,921.79
Economic strain	1.51***	0.85	1.92	0.97	1.72**	1.05	2.15***	1.16
Informal social integration	4.85	0.93	4.76	0.94	4.37***	1.20	4.30***	1.08
Religious services	4.26**	1.67	3.74	1.77	3.21***	1.80	2.71***	1.64
Social support	4.05	0.78	3.98	0.84	3.89**	0.95	3.78***	0.89
Mastery	3.27***	0.62	3.28	0.55	3.21	0.64	3.23*	0.58
<i>n</i>	278		1,052		427		1,110	
% of age group	39		48		61		52	
% of total sample	10		37		15		38	

^aSignificantly different than younger adult volunteers.

^bSignificantly different than volunteers in same age group.

* $p < .05$; ** $p < .01$; *** $p < .001$, two-tailed test.

There are some differences in the findings for each measure of volunteering. The volunteer role is positively associated with life satisfaction ($b = .221$, $p < .05$, Table 2) and with perceived health ($b = .154$, $p < .001$, Table 3). Volunteering for more than one type of organization resulted in a 26% greater increase in life satisfaction and a 63% greater increase in perceived health than the benefits experienced from volunteering for just one type of organization. The relationship between volunteer hours and satisfaction with life was positive and significant; satisfaction increased with level of commitment ($b = .002$, $p < .05$, Table 2). However, the relationship between volunteer commitment and perceived health was not linear (see Table 3). The physical benefits of volunteering began to decrease after 100 hours per year, and if the pattern continues, volunteering would begin to negatively affect health at 140 hours per year—or the equivalent of 2.7 hours per week. Because the analysis controlled for age, it is not the case that this nonlinear effect

is the result of grouping young elderly persons with older elderly persons, who are more likely to be in failing health. Although the imprecision of the response categories for volunteer hours in the data did not allow an accurate estimate of how many seniors in this sample experienced these negative effects of volunteer work, only 7.5% of seniors donated 160 or more hours in 1986. Thus, for the vast majority of seniors, volunteering had positive health implications.

The majority of the volunteer work in which seniors engage occurs in the context of a religious organization, and attendance at religious services is positively associated with life satisfaction (Ellison, 1991) and negatively associated with mortality (Hummer, Rogers, Nam, & Ellison, 1999; Strawbridge, Cohen, Shema, & Kaplan, 1997). To test whether the impact of volunteer work was simply a benefit of association with a religious group, I included attendance at religious services in the analyses as a control variable. The impact of the volunteer role on life satisfaction decreased by

Table 2. Ordinary Least Squares Regression of Life Satisfaction at Time 2 on Voluntary Work at Time 1 for Older and Younger Respondents

	Respondents 60 and Older			Respondents Under 60			Group Differences
	1	2	3	1	2	3	
Volunteer role	.221* (.124)			.181** (.062)			<i>ns</i>
Volunteer hours 1986		.002* (.001)			.003* (.001)		$p < .05$
Volunteer hours squared		<i>ns</i>			-.00002**		$p < .001$
One organization			.202* (.145)		(.000)	.197** (.070)	<i>ns</i>
More than one organization			.254* (.161)			.157* (.078)	<i>ns</i>
Life satisfaction 1986	.551*** (.064)	.550*** (.064)	.550*** (.064)	.545*** (.037)	.548*** (.037)	.545*** (.037)	
Constant	2.496*** (.830)	2.575*** (.833)	2.521*** (.835)	2.989*** (.339)	3.061*** (.349)	2.975*** (.340)	
Adjusted R^2	.166	.165	.165	.193	.186	.187	

Note: Data presented in table are unstandardized coefficients with standard errors in parentheses. Controlling for living with someone as married, parental status, being employed, age, sex, race, functional impairment, education, family income, economic strain, social integration, social support, and mastery.

* $p < .05$, one-tailed; ** $p < .01$; *** $p < .001$.

only 8% with the inclusion of attendance at religious services. Volunteering's impact on perceived health increased 14% with the addition of religious attendance. Like Musick and colleagues (1999), I found that volunteering is not a proxy for participation in religious activities.

Chambré (1987) argued that it may simply be physical activity that makes involvement in social roles important to the well-being of elderly persons. However, in additional analyses controlling for how physically active seniors are—how often they take walks, garden, and/or play sports—activity level did not explain the impact of the volunteer role on life satisfaction or perceived health. Activity level explained less than 2% of the impact of volunteering on sat-

isfaction and on health. Volunteering had benefits beyond simple physical exertion. In sum, these results provide support for the first set of expectations. Volunteering does have positive effects on elderly adults' physical and psychological well-being, and the more active volunteers are, the greater the benefits.

Life Course Comparisons

How does the impact of volunteering on elderly persons compare with its benefits for younger adults? In comparing results across the two groups, I used the unstandardized coefficients because standardized coefficients are sensitive to unequal variances between the two groups (Pedhazur,

Table 3. Ordinary Least Squares Regression of Perceived Health at Time 2 on Voluntary Work at Time 1 for Older and Younger Respondents

	Respondents 60 and older			Respondents under 60			Group differences
	1	2	3	1	2	3	
Volunteer role	.154* (.071)			.055* (.037)			$p < .01$
Volunteer hours 1986		.003* (.002)			.001** (.001)		$p < .001$
Volunteer hours squared		-.00002* (.000)			<i>ns</i>		$p < .001$
One organization			.136** (.086)			.057* (.042)	<i>ns</i>
More than one organization			.221** (.095)			.053 (.047)	<i>ns</i>
Perceived health 1986	.454*** (.036)	.456*** (.036)	.454*** (.036)	.496*** (.020)	.497*** (.020)	.496*** (.020)	
Constant	1.615*** (.488)	1.741*** (.496)	1.645*** (.490)	1.565*** (.209)	1.604* (.210)	1.563*** (.210)	
Adjusted R^2	.393	.392	.393	.367	.368	.366	

Note: Data are unstandardized coefficients with standard errors in parentheses. Controlling for living with someone as married, parental status, being employed, age, sex, race, functional impairment, education, family income, economic strain, social integration, social support, and mastery.

* $p < .05$, one-tailed; ** $p < .01$; *** $p < .001$.

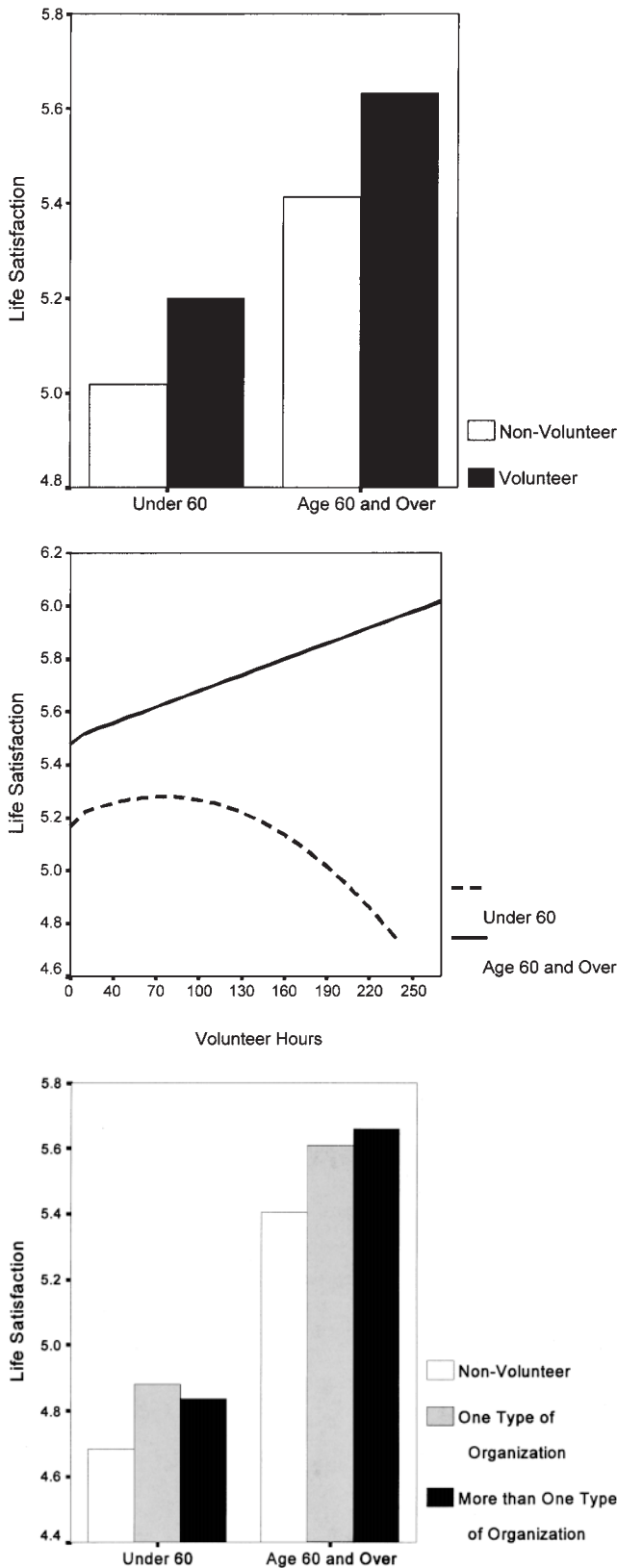


Figure 1. The effect of volunteer work on life satisfaction for older and younger adults, controlling for life satisfaction at Time 1 and control variables. Figure 1 was determined by solving the equation in Table 2 at mean levels for control variables for each age group.

1982). The results of these analyses are graphed in Figures 1 and 2 to allow for comparison. The equations represented in Tables 2 and 3 were solved at mean levels of the control variables for each age group.

As the figures illustrate, the analyses for each age group suggest differences in the benefits of volunteering, and the results for the two measures of well-being tell very different stories. Although the volunteer role was more positively associated with life satisfaction among older adults than their younger counterparts, it was only marginally so, and the difference was insignificant (.221 vs .181, $p = .60$). This suggests that volunteering has the same impact on the life satisfaction of older and younger adults. However, when the impacts of range of volunteering and volunteer hours were compared across the two age groups, the relationship between volunteering and life satisfaction was revealed to be quite different across the two groups. Although the differences in the impact of volunteering for one or more types of organizations were not significant across the two age groups, younger adults experienced only a decrease in benefits from volunteering for more than one type of organization instead of just one, whereas older adults experienced a 26% increase in benefits. Furthermore, volunteer hours was curvilinearly associated with satisfaction among younger adults and linearly associated with satisfaction among seniors. Although older adults gained additional benefits from increasing levels of commitment, younger adults began to experience declining returns from their commitment after 100 hours and experienced negative effects from their volunteer work after 140 hours per year, or 2.7 hours per week.

A comparison of the results for physical well-being also revealed very different results for the role measure versus the measure of commitment. The volunteer role's effect on perceived health was more than 2.5 times greater for elderly persons than for young adults (.154 vs .055, $p < .01$). Yet, as discussed above, the relationship between volunteer hours and perceived health was curvilinear for seniors, whereas young adults continued to accrue benefits as their level of commitment increased. Furthermore, older adults experienced greater benefits from volunteering for either one or more than one organization than did younger adults, although not significantly so, and younger adults who volunteered for more than one organization did not experience physical benefits from their volunteer work.

Tests of interaction terms between the sociodemographic, socioeconomic, social role, and social resource variables suggest only a few, inconsistent differences in the impact of volunteer work on well-being across members of different social groups. For example, Blacks under age 60 experienced smaller improvements in perceived health for every hour of volunteer work they performed than did non-Blacks ($b = -.002, p < .05$). Race does not mediate the impact of the volunteer role or volunteer hours on perceived health for older adults or on life satisfaction for either age group. Volunteers under age 60 experiencing economic strain experienced fewer benefits in terms of life satisfaction for their volunteer hours than did those with less economic strain ($b = -.001, p < .05$). The volunteer role has less of an impact on the life satisfaction of young adults with functional impairments than of those without ($b = -.240, p < .10$). Younger

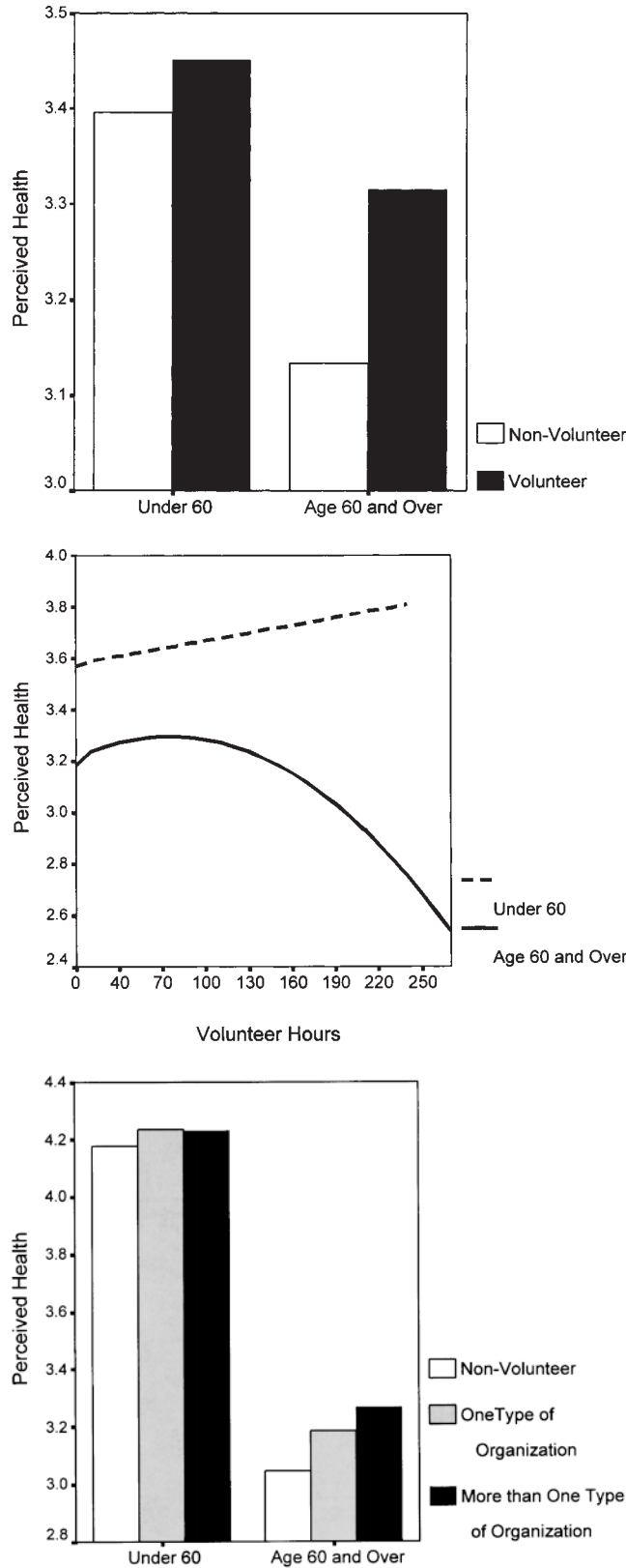


Figure 2. The effect of volunteer work on perceived health for older and younger adults, controlling for perceived health at Time 1 and control variables. Figure 2 was determined by solving the equation in Table 3 at mean levels for control variables for each age group.

volunteers with high levels of social integration experienced greater increases in their perceived health than those who spent less time with family and friends ($b = .137, p < .01$). Finally, the results of interactions indicate that younger adults do not experience role strain as a result of combining volunteering with being married, parenting children, or working outside the home. However, older adults who combined volunteering with marriage reported higher levels of perceived health than those who were not married or did not volunteer ($b = .352, p < .01$), and older adults who worked outside the home reported higher life satisfaction when they volunteer than did those who do not ($b = .524, p < .05$). Younger adults did not experience these benefits from combining roles.

DISCUSSION

This study addressed two primary questions. First, does volunteer work improve the psychological and physical well-being of elderly persons? Second, do elderly volunteers experience different benefits from their efforts than do their younger counterparts? These analyses confirm the long-term impact of volunteer work on the well-being of elderly persons, using a representative sample of participants and non-participants and relying on actual versus expected outcomes.

Much of the research on the benefits of voluntarism has focused on elderly volunteers. In this study, I also compared and contrasted the benefits experienced by older versus younger adult volunteers. My results suggest that the attention to senior volunteers has been warranted, not only because seniors are less likely to have other social roles to keep them active, socially integrated, and feeling productive, but because they experience the greatest benefits. Furthermore, these greater benefits are not simply because seniors are more active volunteers; older volunteers experience greater psychological benefits for each hour that they contribute than do younger volunteers. And older volunteers experience somewhat greater benefits for becoming active with multiple types of organizations than do younger adults. The different relationships between volunteer commitment and the two measures of well-being across the two age groups suggest that different mechanisms may mediate the impact of volunteer work at high levels of commitment for each group. Young adults who are heavily committed may be particularly likely to have high levels of responsibility, including supervising other volunteers, which may lead to stress, whereas particularly high levels of volunteer commitment may be physically taxing for some senior adults. However, these questions cannot be addressed with these data.

Why older adults experience different benefits from their activity than do younger volunteers may be in part related to the types of activities in which they are involved. Unfortunately, the hours individuals reported volunteering were not differentiated by type of organization for which they volunteered their time; therefore, these data cannot be used to fully investigate the role of patterns of volunteer activities in the age differential in benefits. However, in additional analyses not shown, multivariate analyses were conducted for the total sample, replacing the volunteer role with individual dummy variables for participation in volunteer work

for each of the five types of organizations. As 46% of volunteers offered their services to more than one type of organization, each of these dummy variables had to be entered individually to avoid problems of multicollinearity. Consistent with the finding that older volunteers benefit more, the most psychologically beneficial type of volunteer work, church-based voluntarism ($b = .135, p < .05$), was most common among older volunteers. Yet, the evidence is mixed. Younger adults were more likely to volunteer in schools, the second most beneficial activity in terms of life satisfaction ($b = .108, p < .05$), than were older adults. Senior center voluntarism was the most physically beneficial and the second most common type of voluntarism among older adults ($b = .117, p < .05$). It is followed by volunteering for a political organization and volunteering in a school ($b = .092$ and $.068$, respectively, $p < .05$). Thus, volunteering for different types of organizations yields varying benefits, and elder volunteers are more likely to volunteer for those types of organizations that have the greatest impact on well-being.

Another interpretation of the greater benefits experienced by older adult volunteers comes from a life course perspective. The roles that individuals take on have different meanings and occur in different contexts at various points in the life course. Volunteering in old age may be a welcome alternative to hours spent at home, whereas volunteering in middle age often happens as an off-shoot of other roles and, therefore, may be perceived of as yet another obligatory task to fulfill in order to be a good parent, worker, and so forth. Furthermore, the vast majority of adults over 60 believe that older people should contribute to society through community service after they have stopped working (Herzog & House, 1991). Recent research by Robin Simon (1997) has suggested that the meanings individuals attach to particular role identities may mediate the effect of these roles on their psychological well-being. Further research is needed to test this explanation for the differential benefits experienced across the life course. However, these analyses suggest that efforts to encourage senior citizens to volunteer and to make volunteering more possible for elderly persons should continue.

More detailed nationally representative data are needed to explore how volunteers commit their time, what their volunteering means to them, what kinds of activities they engage in when they do volunteer, and, therefore, what explains differential impacts on well-being. Furthermore, researchers should be cautious when choosing a measure of volunteering. Past research has erroneously concluded that volunteer commitment does not significantly affect the impact of the volunteer role because including commitment in the same models as the volunteer role leads to multicollinearity. Yet most theoretical arguments suggest that time spent in volunteer work should affect its benefits. As these analyses indicate, choice of measurement can greatly affect the results and conclusions drawn.

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