

Environmental Volunteerism as a Form of Civic Engagement for Older Adults: Benefits, Motivations and Barriers

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I. Overview of the Working Paper

In the United States, there is local, state, and national interest in strengthening stakeholder participation in environmental management that builds on a long history of civic engagement. Commentators have long noted that American society is distinguished by the prominent role civic engagement plays in the economic, political, social, and cultural spheres. Over time, some forms of this engagement have grown and declined (Putnam, 2000, 1996, 1995), while new forms of stakeholder involvement have also arisen. One example is in the environmental domain. As the influence of the environmental movement grew in the 1960s, it stimulated the enactment of landmark environmental legislation. The expectation of public input in environmental decision-making was established in the 1969 National Environmental Policy Act and was included in virtually all subsequent environmental legislation, thus formalizing civic engagement in environmental decision making (Pfeffer and Wagenet, 2007). That said, the insertion of citizen or stakeholder engagement into public policy formation and implementation has been difficult (Petts, 2003; Bryner, 2001).

Civic engagement offers the potential to help bridge the chasm between formalized, top-down environmental management and public involvement in environmental decision making (Pfeffer and Wagenet, 2007). The working definition of civic engagement crafted by the American Society on Aging (2009) encompasses actions wherein citizens participate in activities of personal and public concern that are both individually life enriching and socially beneficial to the community, which can be a neighborhood, city, county, nation, or the world. Environmental volunteerism as a form of civic engagement in American environmental policy and management developed from grassroots concerns about environmental quality (Nerbonne and Nelson, 2004; Silverberg, 2004; Weber, 2000).

Environmental volunteerism includes either group or solitary activities that may be formal—where people commit their time and skills to an organization on a regular basis, such as docents at a nature preserve or park—or less formal—such as regular participation in outings to remove invasive weeds. The criterion that volunteers be unpaid is not universally accepted;

however, volunteering is about choice—so the most basic tenet of any volunteering definition is that the activity be pursued of one’s own free will. When environmental volunteer activities directly engage members of the public in the generation of data and discussion of issues of personal and public concern, confidence in science-based decision making in environmental management may be reinforced. Environmental volunteerism can also offer one means for increasing more direct human/environment interactions in societies where such interactions are dominated by science- and technology-based rationality (Pfeffer and Wagenet, 2007). Underlying this idea is the assumption that direct connection with the outdoors produces mental and physical health effects as well as a connection to the natural world that is within the realm of the spiritual (Becker, 2001).

In this paper, we discuss how increasing civic engagement among older adults through environmental volunteerism can a) be individually life enriching and socially beneficial to the community and b) potentially improve environmental quality by strengthening stakeholder participation. We discuss general trends in volunteerism in the U.S., how environmental volunteerism benefits older adult participants, how environmental organizations can benefit from older adult volunteer efforts, and some of the motivations and barriers to such participation. We include a broad overview of the literature germane to this topic and highlight potential research questions that have evolved from our review.

II. Older Adults and Volunteerism Trends

The older adult population is expected to double worldwide between 2000 and 2025, and as many as one-third of citizens will be age 60 or over in industrialized countries. In general, older people feel younger than their chronological age and are, for the most part, satisfied with the aging process (Gana, et al., 2004; Montepare and Lachman, 1989; Ruben and Berntsen, 2006; cited in Kleinspehn-Ammerlahn, et al., 2008). In fact, a Berlin study found that individuals reported their experienced age as thirteen years younger than their chronological age (Kleinspehn-Ammerlahn, et al., 2008). In their study of older African American women, Tan and colleagues (2009) found that involvement with “high-intensity senior service programs...could lead to sustained improvements in physical activity in high-risk older adults, while simultaneously addressing important community needs” (page 304). However, it is sometimes difficult for older persons to find meaningful volunteer work and the trend toward earlier retirement has led to a relatively long period of comparative “rolelessness” among a population of older adults who simply do not feel old. Thus, promotion of opportunities for volunteering in later life is strongly recommended (Moen et al., 2000).

According to the U.S. Bureau of Labor Statistics (BLS, 2009), over the past five years about 30 percent of the population age 55 to 64 volunteered, and 24 percent of the population over age 65 volunteered. The Advantage Initiative Survey (ADI) reported volunteer rates among individuals over 65 to be 36 percent with approximately 46 percent of these older adults spending five or more hours per week in a volunteer capacity (ADI, 2003). Volunteer activities most frequently occur in association with a religious-based organization. Among older adults, religious-based volunteerism was particularly dominant at a rate of 47 percent, whereas among those aged 16 to 24, the percentage was only 31 (BLS, 2009). Among all volunteers, the highest percentage had attained a bachelor's degree and the largest cohort was white (BLS 2009). The Independent Sector 2000 report on America's senior volunteers reported similar demographic trends for volunteers over 55 but noted a significant increase in the number of older African American and Hispanic adults who volunteer. (See Rozario, 2007, for a thorough review of general volunteering trends among older adults and baby boomers.)

Environmental volunteerism among older adults is not well documented. The annual BLS report combines environmental and animal care activities into one category. Consequently, this category includes a broad array of activities from organizations that promote clean air, clean water, noise pollution reduction, radiation control, treatment of hazardous wastes and toxic substances, solid waste management and recycling programs; organizations that work to conserve and protect natural resources including land, water, energy, and plant resources; organizations that promote anti-litter campaigns, programs to preserve parks, green spaces, and open spaces in rural and urban areas, and highway and city beautification programs (includes botanical gardens, arboreta, horticultural programs, and landscape services); organizations such as wildlife sanctuaries and refuges, animal shelters and humane societies, and others that work to aid and protect animals. Only about 1.5 percent of volunteers older than age 65 reported these types of organizations as their main focus for volunteer activities. However, among volunteers age 55 to 64 more than 2.3 percent did so. The only age group with a higher percentage in environmental and animal care activities were those aged 16 to 24, at 3.0 percent (BLS, 2009). Lubell (2002) argues that age does not have an impact on environmental activism; he posits that the effect of advanced civic skills and experiences of older adults outweighs the environmental awareness and "post-material values" of younger aged cohorts (page 451).

The Cornell National Social Survey, conducted by the Survey Research Institute (SRI) at Cornell University in 2008, specifically addressed citizens' connections to environmental management. A random digit dialing of 1,000 individuals revealed that 15 percent of the survey

population is a member of an environmental organization and nearly 20 percent has volunteered for an environmental organization. An overwhelming 80 percent of respondents feel that they would do what is right for the environment, even if it meant spending additional time and money. Respondents were nearly unanimous in their responses regarding the importance of maintaining the environment for future generations (SRI, 2008). Similar trends hold when data is limited to respondents over age 55 (Table 1).

Table 1. Connections to environmental management among adults over 55 (SRI, 2008).

Would do what is right for the environment no matter the cost.	83%
Think we should maintain the environment for future generations.	96%
Have a membership in environmental organizations.	12%
Engage in volunteer activities related to the environment.	15%

III. Benefits of Environmental Volunteerism for Older Adults

The general consensus is that older people benefit by maintaining connections with volunteer projects that keep them active (Librett, et al., 2005), learning, thinking about others, and less self-focused (Hendricks and Cutler, 2004). While benefits specific to environmental volunteerism for older adults have not been well studied, we can use research on the general benefits of engagement in outdoor activities to generate hypotheses for physical and mental health benefits in aging populations. For example, sedentary behavior is widely recognized as a risk factor in chronic disease, morbidity, and mortality; regular engagement in such activities as gardening, yard work, walking, climbing stairs, and biking can be helpful at levels as low as 20 to 30 minutes per day (DePietro, 2001; Kruger, et al., 2009). Additionally, regular exercise is associated with a delay in onset of dementia and Alzheimer’s disease in people older than age 65 years (Larson, et al., 2006). Engagement in environmental projects such as sampling vegetation, conducting a biological inventory of a natural area, participating in a restoration project, or clearing a trail likely have similar physical health benefits for older people.

Librett and colleagues (2005) are the only investigators who have empirically demonstrated the specific health benefits of environmental volunteering for older people. They examined the relationship between environmental volunteering and physical activity in a national sample. They found that those who volunteered in environmental activities were nearly three times more likely to meet physical activity recommendations than those not volunteering on environmental projects. Additional research is needed specifically on the older population, but these findings support the conclusion that environmentally-based volunteer programs could

“simultaneously improve individual health, increase access to physical activity for the community, and improve the environment” (Librett et al., 2005: 12).

In what ways might environmental volunteerism have specific benefits for older people, given that they face a diversity of challenges, including potential social isolation, depression, lack of exercise, and the task of creating new meaning in the face of diminishing vitality, social opportunity, physical capacity, occupational engagement, and financial resources (Kaplan 1992)? Aging populations bring to the table wisdom, experience, technical expertise, and enthusiasm for creating meaning through socio-emotional activities (Moore, et al., 2000). Deficit models (e.g., Baltes and Baltes, 1990) will not provide full understanding of the benefits of environmental volunteerism for older adults. Similarly, a “drive to engage” model in which people maximize their involvement in volunteer activities may not be optimal either, as the relationship between age and investment of time in volunteer efforts may be nonlinear, increasing to a point with effort and then declining (Windsor et al. 2008).

We propose that environmental volunteerism has specific qualities that both take advantage of the strengths and ameliorate the effects of aging and, to the extent that this is so, can be regarded as specifically beneficial to older persons. Because the incidence of environmental volunteerism has not been extensively measured, we do not know conclusively how common it is; however, studying the benefits of environmental volunteerism is an important step toward understanding the value of engaging the growing numbers of older, retired adults to join the ranks of people concerned about sustainability.

Medical and psychological researchers have highlighted the value of outdoor experiences and connection to nature for promoting physical and mental health, particularly in response to concern about inactivity and obesity (Frumkin, 2001; Louv, 2005). Frumkin (2001) reviewed evidence for benefits of nature experiences arising through interaction with four basic aspects of the natural world: animals, plants, landscapes, and wilderness. Proposed benefits range from relaxation/stress reduction to psychological improvement, coping ability, emotional well-being, increased energy, and physical well-being. While few studies have involved aging populations in particular, in one study of home gardeners, stress reduction and interaction with nature emerged as the primary self-reported benefits for respondents (Catanzaro and Ekeanem, 2004).

Compelling studies involving natural experiments with younger audiences suggest broad potential for the palliative effects of time in outdoor environments planted with trees and other vegetation. The benefits include improved attention (Kuo, 2001), reduced aggression and violence (Kuo and Sullivan, 2001), reduced stress (Wells and Evans, 2003), and improved

cognitive function (Wells, 2000). Further exploration is needed to understand the potential for outdoor experiences associated with environmental volunteerism to convey this wide array of benefits for aging populations.

In order to embark upon research examining health benefits of environmental activities, we must first organize the ideas into a framework that identifies the potential benefits of environmental volunteerism apart from the more general issue of civic volunteerism for aging populations (Table 2).

Table 2. Comparison of hypothesized benefits of civic volunteerism versus environmental volunteerism in aging populations (Dickinson 2009).

Benefits	Civic Volunteerism	Environmental volunteerism
More integrated within community	+	+
Combat social isolation	+	+
Identity through contribution	+	+
Increased cognitive activity/learning/skill building/self-esteem	+	+
Psychological/socio-emotional benefits	+	+
Increased time spent outdoors	-	+
Increased physical activity	-	+
Stress reduction	-	+
Psychological benefits of focusing on the benefits and continuation of living systems	-	+
Benefits of connecting with animals/flight	+	+
Nature – positive effects on mental health/ cognition	-	+
Connecting with nature and psychological resilience	-	+

Looking broadly at the medical and psychological literature, several potential benefits emerge:

1. Because environmental volunteerism often means engaging with the outdoors, one side effect will be increased levels of physical activity, which is known to have impacts on morbidity and mortality (DePietro, 2001). The challenge for researchers will be to determine the extent to which people who like to be physically active select environmental pursuits that provide such opportunities over more sedentary pursuits,

and the degree to which people become more active by virtue of their engagement with environmental volunteerism.

2. One of the main determinants of successful aging is stress reduction. Environmental volunteerism has many elements that are likely to reduce stress, including connection with the outdoors and nature and secondary stress reduction effects of physical exertion and exercise.
3. Environmental volunteerism provides meaning that is open ended, which makes it both congruent with or possibly alternative to religious ideology. As discussed above, religious volunteerism is the most common form of volunteerism for aging populations. The benefits people derive from religious volunteerism, which include identity and symbolic self-immortality (Becker, 2001), may also translate to nonreligious environmentalism, where the immortality ideology is transferred to the future of the planet (Dickinson, 2009; Wilson, 2006).
4. Focusing on specific charismatic species can have anxiety-reducing effects, particularly if those species possess the property of flight (Dickinson, 2009). Aging adults, age 50 and up, most with college or even graduate education, form the bulk of the audience for citizen science projects at The Cornell Lab of Ornithology (Brossard, et al., 2005). As proposed benefits emerge in empirical studies of environmental volunteerism, there is considerable potential for expanding this audience of about 300,000 people, given that birdwatchers number an estimated 46 million, according to a 2006 survey by the U.S. Fish and Wildlife Service (Report 2006).
5. Potential expansion of engagement also exists in the gardening arena, where an estimated 91 million households participate in one or more types of do-it-yourself indoor and outdoor lawn and garden activities (National Gardening Association (NGA), 2005). NGA further notes that households that spent more than the national average on their lawns and gardens included men, people 45 years of age and older, and households that are retirees. The Cooperative Extension Master Gardener Volunteer program, which is supported by nearly all land-grant institutions, has tapped this resource of older adult gardeners for nearly 40 years (Meyer, 2007). Currently, there are more than 90,000 active Master Gardener Volunteers across North America (USDA, 2009).

Table 3. Hypothesized benefits of specific modes of environmental volunteerism
(Dickinson 2009).

Activities	Hypothesized benefits
Citizen science – animal and plant observation	Learning, potential for physical activity
Citizen science – birdwatching	Flight – anxiety reduction
Restoration and community gardening projects	Physical activity and health
Trail clearing	Physical activity, nature connection (psychological); Social connection
Nature docent – parks, nature centers, public gardens	Nature connection (psychological); self-esteem (expert); social connection (psychological – reduced isolation)
Invasive species removal	Physical activity, stress, learning, socio-emotional benefits
Public education to promote environmental stewardship, sustainable gardening practices	Socio-emotional benefits, some physical activity
Fundraising for land preservation	Socio-emotional benefits, some physical activity
Environmental justice work	Socio-emotional benefits

Environmental volunteerism has substantial potential to benefit aging populations through increased social interaction, nature interaction, physical activity, stress reduction, psychological well-being, and maintenance of cognitive ability and self-esteem through learning and skill-building. Older adults could be recruited through integrated activities—like citizen science, which involve gardening, biodiversity monitoring, educational programming delivery—and intervention toward addressing a critical set of environmental issues.

IV. Benefits of Environmental Volunteerism for Organizations

As discussed above, older adults constitute a significant portion of the volunteer workforce of environmental organizations, and the potential exists for large-scale expansion of the numbers of participants. The work that older adults can provide might make all the difference in the ability of environmental organizations to accomplish their objectives. Across the U.S., volunteers monitor the condition of streams, rivers, and other water bodies and wells near their homes which they desire to help protect. Through eBird, launched by the Cornell Lab of Ornithology and the National Audubon Society, volunteers provide data on bird abundance and distribution, making use of the vast numbers of bird observations made each year by recreational and professional bird watchers. In 2006 alone, they reported more than 4.3 million

bird observations across North America. Through the National Phenology Network, citizen scientists gather and contribute observations on the effects of global climate change on plants.

Participating in a volunteer program that provides data usually requires taking part in formal training sessions and committing to a regular schedule of sampling (weekly, monthly, or seasonally, depending on the project). Through their efforts, volunteers provide quality data where it would be physically impossible for professionals to take as many samples or cover as much territory. Many volunteer groups collect data that supplement the information collected by state and local resource management or planning agencies. These agencies might use the data to screen water for potential problems, establish baseline conditions or trends that would otherwise go unmonitored, or evaluate the success of best management practices designed to mitigate problems. Volunteers also clean up garbage-strewn waters, count and catalog beach debris, and become involved in restoring degraded habitats.

Projects may be entirely independent, organized and sponsored by environmental organizations, or associated with municipal agencies, with financial support from government grants, partnerships with business, endowments, independent fundraising efforts, corporate donations, membership dues, or a combination of these sources. The National Directory of Volunteer Environmental Monitoring Programs, published by the U.S. Environmental Protection Agency (USEPA), identifies existing local groups around the U.S., while such resources as the USEPA's Adopt Your Watershed website detail additional opportunities.

Although no longer in existence, the nonprofit Environmental Alliance for Senior Involvement (EASI), had the mission to build, promote, and utilize the environmental ethic, expertise, and commitment of older persons to expand citizen involvement in protecting and caring for our environment for present and future generations. A new national organization with a mission similar to the now non-operational EASI is needed to 1) promote collaboration and build partnerships among players in older adult environmental volunteerism including government agencies such as USEPA, the American Association of Retired Persons (AARP), environmental organizations such as the Nature Conservancy, corporations and foundations, and local community environmental projects; 2) provide leadership training for older adult volunteers working on environmental projects; 3) maintain an older adult environmental information network and national database of environmental volunteer activities tailored for older adults; and 4) provide professional development to staff members of environmental organizations wishing to most effectively engage the growing population of older adults. The Cornell Aging and the Environment Initiative, which includes the Retiree Environmental

Stewards Project (RESP) is an example of leadership in this effort (Pillemer and Wagenet, 2008).

V. Motivation for Older Adults to Participate in Environmental Volunteerism

AARP research revealed that 44 percent of adult volunteers aged 44 to 79 become involved with an organization after being asked to participate, whereas about 41 percent do so on their own initiative (AARP, 2008). Further, the top ranked motivation for volunteering was helping individuals in need, which was selected by 52 percent for this entire population and more than 70 percent for African Americans. Other motivations that were chosen by at least 45 percent of the population included: achieve greater meaning in your life; feel personal responsibility to help others; make a difference on an issue or problem; and stay healthy and active (over 70 percent for African Americans and Hispanics).

Although motivation for volunteering has not been well documented among older adult environmental volunteers, we propose here that sense of place could play a critical role. Sense of place includes the meanings and attachment that individuals and groups can develop for the locales in which they live, work, and play. Meaningful places are created as people experience and interact with the setting through activities that define their day-to-day lives (Tuan 1977). The process of volunteering may therefore build a stronger sense of place for the volunteer. The settings and activities that drive sense of place often work in tandem. Place meanings often merge a setting (workplace, home, or river) with linked activities: earning a living, raising a family, or engaging in leisure. As such, the nature of the physical environment matters to the construction of place, as do the activities that occur there. Farnum (2004) offers an excellent summary review of the sense of place literature. Sense of place is based both on attachment to the land and the people encountered (Stedman, Amsden, and Kruger, 2006). Sense of place is thought to foster pro-environmental behavior, in that people will be more likely to protect settings that they care about (Brehm, et al, 2009), although Stedman (2001; 2003) notes that this relationship may depend on whether particular place meanings are threatened. Kruger, et al. (2009) explore this relationship specifically in the context of environmental volunteering behavior.

Older adults may have a particular experience of place, although there has been relatively little research in this area. Much place attachment work among older adults has focused on changing meanings of “home,” defined on the micro-scale (i.e., the immediate dwelling), with the latent hypothesis undergirding this work being that places ‘shrink’ for many as they age (Belk 1992; Rubenstein and Parmelee 1992). One key question is the difference

between retirees who “age in place” versus those who make the decision to retire in another location: near children, in a favorable climate, or in places with other amenities, including environmental features. Developmental theorists (e.g., Hay, 1998) suggest stages in the development of sense of place; those raised in a place and who spend most of their lives there, including mid-adulthood to old age, will develop a stronger attachment and be more likely to volunteer. Conversely, transients may not develop a strong sense of place and may be less likely to become involved. Modernization theorists suggest that transience is increasingly common in our more mobile society. As affluent and potentially mobile people retire, we may have a relatively unattached older population. This may be problematic if we believe that unattached older adults are less likely to volunteer on behalf of their “places.”

Others disagree with the developmental theorists and those who emphasize aging in place as crucial to attachment. McHugh and Mings (1996) emphasize that place meanings are “geographically elastic” for retirees. They explore the meanings of home and note that “home” and “away” are not mutually exclusive: people have a strong capacity for multiple attachments. They note also the importance of active engagement in place making: actively creating and re-creating their communities through their interactions with it, such as volunteering (see Cutchin, 2001, for support that aging-in-place and older adult migration ought not to be seen as oppositional).

We have already noted the positive connection between sense of place and pro-environmental behavior. With the exception of Amsden and colleagues (Amsden, 2007; Amsden, et al., 2009), relatively little work has examined the relationship between sense of place and volunteering, either as cause or consequence. One exception is a study of Appalachian Trail volunteers, who contributed almost 187,000 hours in 2001 (Hardy, et al., 2003). These volunteers form an “ecological identity” and see their ability to maintain an important landscape as creating a sense of place (Gooch, 2003). Amsden and colleagues (2009) note that volunteering is a perfect example—and one that is little studied—of an activity that creates place-based meanings and identity (Glynn, 2000). For instance, although activities like boating, hiking, and hunting in a national forest may help a young person develop an identity as an outdoorsperson, a weekend spent maintaining a trail or serving as a summit steward in that same forest may lead to an identity as a “helper” or “protector.” Volunteering also creates place meanings that are embedded in both social and personal contexts, often simultaneously. These contexts help people use their volunteer activity to realize personal goals and to strengthen social ties. Further, meanings and identities may be social in the sense of the participant viewing him or herself as a member of a group, including the institution or agency

that one represents. This notion of loyalty to and identification with the institution needs to be taken seriously.

Amsden (2007) used a sense of place framework and photo-based methodology (see Stedman, et al., 2004, for detail) to examine the activities and meanings of United States Forest Service (USFS) volunteers in Alaska. Older adult volunteers dominated the study sample. The photos and interview text reveal how the volunteers used their work to “make place” in several ways: They directly change the landscape by engaging in restoration work and they communicate and interpret place, thus re-creating the landscape by teaching others. The volunteers see the act of volunteering as recreation, reflected by the numerous pictures of the campsite where they stayed and the repeated referrals to the “fun” of the program and the act of socializing with others. Additionally, the volunteers’ identities as experts and professionals (established by provided uniforms and training) mean that managers should continue to provide opportunities for volunteers to emphasize the “official” nature of the work, reflecting our earlier assertions.

Theory and research emphasize that both individual motivations (staying healthy and active) and social contexts (working together and making a difference) are important to continued volunteering participation. Very little work has used a sense of place framework to examine volunteer behavior, but we believe that volunteering is motivated by “making places better” (i.e., communities, neighborhoods) and would benefit greatly from the use of such a framework. Pillemer and Wagenet (2008) make specific mention of those who want to change their “place”: “neighborhoods, communities, and world.”

The historical dominance of faith-based volunteer programs could pose a problem as religiosity declines over time. Is it possible that environmental-based volunteering could emerge in response? Pillemer and Wagenet (2008) suggest that environmental organizations have not done enough to motivate older adults to volunteer. Historically, this problem may be tied to relatively lower levels of environmental concern among older Americans, but there is an emerging opportunity here, as Americans now moving into retirement age came of age in a different era and are likely to be more pro-environmental in their orientation.

VI. Barriers to Older Adult Participation in Environmental Volunteerism

As previously mentioned, surveys reveal that volunteers are most commonly older, educated, and white. Other groups are less well represented, with African American, Asian, Hispanic or Latino ethnicity, and high school graduates all below 20 percent of the volunteer population (BLS, 2009). Civic engagement among minority groups tends to be directed towards

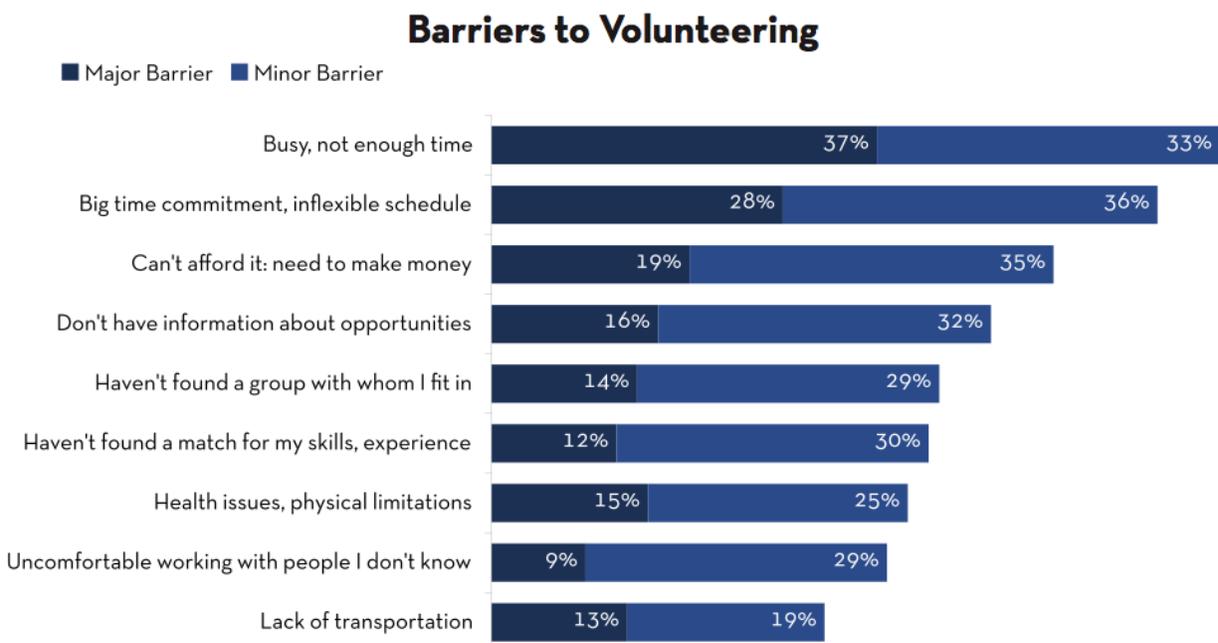
their own community groups and families (Endres, 2006). However, there is a common understanding across all racial and ethnic groups concerning the characteristics of aging well, which includes being socially involved (Logsdon, et al., 2009). Volunteering can offer this benefit. Elucidating some of the top barriers to older adults' participation as volunteers could be valuable in recruiting a larger and more diverse population of older adults to environmental volunteer activities.

A 2008 American Association of Retired Persons (AARP) survey of Americans ages 44 to 79 offers insight into the general barriers to volunteering among adults as well as among specific groups of older adults (AARP 2008). This survey reveals that time and money are leading barriers (Figure 1). Though an earlier Independent Sector survey (2000) also cited other time commitments as major reasons for not volunteering, it noted that older adults were less likely than their younger counterparts to state that their personal schedules were too full to volunteer. In the AARP survey, those who are employed were among the groups that viewed time as the biggest barrier. White collar workers and those who make less than \$30,000 annually were also likely to say the need to make money was a barrier while retirees were the least likely to mention this as a barrier (AARP 2008). Environmental organizations that offer programs that incorporate basic incentives or stipends for volunteer time could help aid recruitment efforts.

A collective effort among environmental organizations to connect the individuals interested in volunteering time with situations where there is real need could be the most effective approach to recruiting a diverse population of older adult environmental volunteers. The 2008 AARP survey revealed that lack of information about opportunities was a top barrier among all adults surveyed and more specifically among 61 percent of non-volunteers, 69 percent of blue collar workers, 58 percent of Hispanics, 55 percent of those who live alone, and 59 percent of those who earn less than \$30,000 annually. The Independent Sector also notes that membership in an organization fosters the spirit of volunteerism among all adults. They observed that among older adults who stated that they were members of organizations, 63 percent reported volunteering (Independent Sector 2000). Research into how national and local environmental organizations can connect with various populations of older adults will enhance the ability of these organizations to provide potential volunteers with information about opportunities and invite individuals to serve. Nearly seven in ten non-volunteers report that they do not volunteer because they have not been asked. When personally asked to serve, eight in ten will do so (Independent Sector 2000). Other barriers including finding a compatible group or

a good match for skills and experience, which might also be addressed through efforts to better connect individuals and organizations.

Figure 1. Barriers to Volunteering (AARP 2008)



VII. Conclusion

This working paper has explored older adult engagement in environmental volunteerism in terms of benefits, motivations, and barriers. Specific literature addressing the role of older adults in this type of volunteer activity is limited. However, this limited body of work provides a wide range of research questions to be addressed, only a few of which are listed below. Because the percentage of adults over the age of 55 or 60 who engage in environmental volunteerism is quite low, one is right to question the environmental impact of their activities. In fact, the benefit might accrue more to the individual than the natural environment. Environmental organizations, however, could more effectively utilize a growing group of potential volunteers. Expanding that volunteer pool to a more diverse population remains a challenge.

VIII. Recommendations for Research

Questions for possible consideration in the Conference on Aging and the Environment include:

1. To what extent can civic engagement/volunteerism by older adults bridge the gap between formalized environmental management and public involvement in environmental decision making? What is the potential for actual impact from these volunteers?
2. What is the evidence that increased stakeholder participation in environmental management, either by older adults or any cohort of volunteers, has a direct impact on environmental quality?
3. To what extent do environmental volunteers engage in pro-environmental behaviors (e.g., conserving resources)? Are these behaviors (volunteerism and pro-environmental behavior) correlated? To what extent do organizations engaging volunteers have a conservation-oriented culture? Might the networking and social interaction that occurs in the context of environmental volunteerism increase awareness of environmental practices?
4. What is the degree to which physical limitations more prevalent in the older population limit participation in environmental activities? Does offering a range of possibilities (from letter writing, to monitoring water quality by collecting macroinvertebrates in streams, to strenuous trail maintenance) increase participation?
5. What is the extent to which people who like to be physically active select environmental activities over more sedentary pursuits versus situations in which people become more active by virtue of their engagement with environmental volunteerism?
6. What is the level of racial diversity in environmental volunteerism among older adults? What are the particular characteristics of different ethnicities in terms of defining environmentalism? Could a deliberate attempt by environmental organizations to locate older adult volunteers and place them in specific roles to overcome the “white, upper class, highly educated” typology that now exists within the environmental movement?
7. What is the role of “place” in motivating older adults to engage in environmental volunteerism? How does this articulate with other motivations (i.e., social, personal)? Does the level of place attachment differentiate volunteers from non-volunteers? Are mobile older adults less likely to volunteer than those who age in place?
8. What is the most effective use of environmental volunteer efforts? How can barriers to environmental volunteerism be diminished, particularly in minority and low-income populations to increase overall participation?

9. What are some strategies to promote multi-generational environmental volunteerism? Are such approaches effective ways to confer environmental and volunteer-oriented values from one generation to another?
10. How do we train volunteer coordinators in environmental organizations to maximize effective use of volunteers' time and expertise? Can we model this training after those designed to help organizations in general engage older adults such as Silver Print Colorado, Virginia's Faith Based and Community Initiative, and Maryland's Baby Boomer Initiative – specifically the Experience Corps program?
11. What are the most reasonable opportunities for research funding in this area? Are gerontological organizations the most appropriate sources or can interest be engendered from traditional environmental funding sources?

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