Volunteer motivation in urban forestry: a survey and assessment of the Iowa community tree

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Volunteer motivation in urban forestry: a survey and assessment of the Iowa community tree steward program

by

Lynetta Vatrice Cleveland

A thesis submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

Major: Forestry (Forest Administration and Management)

Program of Study Committee:

Jan R. Thompson, Major Professor
Paul Wray
Richard Hall
Lois Wright Morton

Iowa State University
Ames, Iowa
2005
Graduate College

Iowa State University

This is to certify that the master’s thesis of

Lynetta Vatrice Cleveland

has met the requirements of Iowa State University

Signatures have been redacted for privacy
DEDICATION

This thesis along everything I have accomplished in my life is dedicated to my family.

Mr. and Mrs. Jimmy C. Cleveland, Sr., and Jimmy Charles Cleveland, Jr.

Thank you for always supporting me in all my endeavors.
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ABSTRACT

The Iowa Community Tree Steward (ICTS) Program is a volunteer-training extension program based on a premise of "trading" training for volunteer service. This program trains volunteers to care for trees. Following training, volunteers are expected to engage in planting and pruning trees, giving advice to neighbors, and advocating for trees and tree care in their communities. However, volunteer engagement in terms of hours of service is variable, leading to inconsistent results in community tree maintenance. The objectives of this study were to: (i) assess factors affecting Tree Stewards' motivation to contribute volunteer hours, and (ii) examine the relationships between motivational factors and participants' level of activity. A mail-questionnaire was used to query ICTS participants about five motivational factors - values, understanding, personal development, community concern, and esteem enhancement. A majority of respondents strongly agreed with statements related to understanding, followed by values. Respondents did not agree as strongly with statements about personal development, community concern, and esteem enhancement. Respondents' level of agreement with statements related to motivation and advocacy were used in independent regression models to examine their relationships to three measures of volunteer service - number of hours served, number of activities engaged in, and number of types of collateral volunteering. Strong relationships were detected between values and collateral volunteering, between personal development and both number of hours and number of activities, and between advocacy and number of hours served. Extension programming can be modified to directly address factors that lead to more consistent and ongoing engagement of volunteers.
CHAPTER 1: GENERAL INTRODUCTION

Urban forests play a vital role in Iowa’s landscape. Many of Iowa’s urban forests are not receiving the proper care and maintenance they need, due to a lack of trained personnel to carry out these duties. Iowa’s communities have an average of 30 percent tree cover in each community and about 30 to 45 tree species (Iowa Department of Natural Resources, 2001). Iowa has 950 communities, which all have street, park, and residential trees. In 1990, the Iowa Department of Natural Resources Forestry Division started the Iowa Urban and Community Forestry Council to assist in developing policy and management strategies for trees in urban areas (Iowa DNR, 2001).

The Iowa Urban and Community Forestry Council, in cooperation with Iowa State University Extension, the Bureau of Forestry of the Iowa Department of Natural Resources, and Trees Forever have developed programs to educate the public on forestry issues. One of these programs is the Community Tree Steward Program. The purpose of the Community Tree Steward Program is to develop a network of highly motivated, well-trained volunteers to assist in the improvement and expansion of community tree resources in Iowa (Feeley, 2004).

Volunteer Training

Today, there are many programs which teach volunteers various skills and techniques that they are able to pass on to their friends and neighbors. In these programs volunteers are trained either in a classroom or field setting. The first program of this type was the Master Gardener Program which was started at Washington State University in 1973 (Tinnemore, 2004 and www.mastergardener.wsu.edu). Since the start of the Master Gardener Program many other programs have been patterned after it.
Volunteer activity is an important form of sustained assistance and support that is particularly critical in an era of limited resources for governmental program administration. Thus, general volunteer motivation has been studied with respect to a wide range of activities, such as sustained health care assistance as well as natural resource management. For example, Omoto and Snyder (1995) examined the importance of values, understanding personal development, community concern, and esteem enhancement in their study of volunteers in AIDS programs. Clary et al. (1998) reported similar factors (values, understanding, enhancement), as well as other social, career, and protective motivations, in their assessment of volunteer activities. Anderson and Shaw (1999) examined the importance of service to others, social connections, and interest in or commitment to the goals of the organization in their study of volunteerism in tourism.

Omoto and Snyder (1995) determined that volunteers providing long-term assistance to AIDS patients were primarily motivated by values, followed by community concern, and understanding. Anderson and Shaw (1999) found that volunteers in tourism were mostly motivated by the goals of the organization and the social connections they made with others while volunteering. They also noted that the motivating forces for volunteering are many and varied, and that the motives for volunteering to work for different organizations can also change over time.

Volunteer Motivation in Urban Forestry

Still and Gerhold (1997) conducted a study to determine the motivations and task preferences of urban forestry volunteers. This study found that improving the neighborhood
was the main reason for volunteering, followed by a desire for education. Volunteers felt that tree care was the most important task (Still and Gerhold, 1997). Ryan and coworkers (2001) found similar results in their study of volunteer commitment in environmental programs. Their study found that volunteers thought that helping the environment and learning were the most important motivating factors and that social interaction was a factor in influencing volunteer commitment (Ryan et al, 2001). In a recent study on urban forestry in small rural communities it was suggested that a lack of funding and uncertainty about rights and responsibilities led to lack of community forest management activities (Groninger et al, 2002). The solution to these problems could be to enlist the help of volunteers to conduct routine tree care management activities (Groninger et al, 2002).

Tree-Related Volunteer Education Programs

In 1992, the University of Minnesota Extension Service and the Minnesota Department of Natural Resources started a program to train people to serve as urban forestry tree care advisors (Johnson, 1995). These volunteers were trained in both classroom and laboratory sessions on proper tree care and shrub management. Also in 1992, the Iowa Community Tree Steward Program was planned (originally it was called the Master Urban Tree Manager’s Program). This program was first offered to residents of central and eastern Iowa in 1994 (Wray, 2004). The Community Tree Steward Program requires participants to complete 24 hours of instruction and then to perform 24 hours of volunteer service in their community (Feeley, 2004). The Minnesota tree advisors program does not require volunteers to perform volunteer service, but participants are strongly encouraged to do so. Both of these programs focus on tree and shrub identification, program planning and implementation,
tree anatomy and physiology, understanding the impact insects, diseases, and environmental stresses have on trees, up-to-date planting and maintenance recommendations, selection of appropriate trees for a given site, tree inventories, hazard tree recognition, and developing community tree plans (Johnson, 1995, www.forestry.iastate.edu).

The Iowa Community Tree Steward program is intended primarily for citizen volunteers, although community forestry and parks staff, tree care professionals, utility company representatives, county conservation board staff, nursery and landscape professionals, and other interested individuals also participate. The program is taught over a twenty-four-hour period which is divided up into six four-hour modules. After completing all six modules, participants receive an Iowa Community Tree Steward certificate. Graduates of the Community Tree Steward Program have performed volunteer service in their communities in many different ways. Some have taken on key roles in their communities as forestry technicians. These people perform such tasks as tree planting and pruning and also teach others the proper way to do these tasks. Many program graduates have started tree care programs within their communities and continue to play a vital role in the upkeep and maintenance of their communities’ trees and shrubs.

Over 500 people have enrolled in and completed the ICTS program since its beginning in 1992. Based on data provided by program staff these volunteers have given approximately 15,000 hours of service in their communities (Feeley, 2004). If distributed evenly this represents about 30 hours per graduate. In reality these numbers do not represent actual ICTS volunteer hours. A number of volunteers have contributed the required 24 hours of service and beyond, but many volunteers have not contributed any hours.
Previous Program Evaluations

In 2002 a survey of participants from several extension programs in Iowa was conducted to evaluate the impacts of three programs (the Community Tree Steward Program, Master Conservationist Program, and the Master Woodland Manager Program) on participants' knowledge, attitudes, and behaviors towards conservation and wildlife (Rohrberg-Johnson, 2002). This study found that after completing these programs, participants had an increase in knowledge in natural resource management, but no significant change in attitudes about Iowa’s natural resources. One of the questions in the survey pertained to post-program volunteer hours that individuals had completed, and hours they intended to complete. More than 50 percent of the participants had completed 26 hours or more and more than 80 percent intended to complete 26 hours of volunteer service or more (Rohrberg-Johnson, 2002).

Objectives

The objectives of this study were to: (i) assess the factors affecting Tree Stewards' motivation to contribute volunteer hours, and (ii) examine the relationships between motivation and advocacy factors and participants' level of activity.
Thesis Organization

This thesis consists of three chapters: Chapter 1, Introduction; Chapter 2, Volunteer Motivation in Urban Forestry: A Survey and Assessment of the Iowa Community Tree Steward program (a paper to be submitted to The Journal of Extension); and Chapter 3, Conclusions.
Literature Cited


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CHAPTER 2: VOLUNTEER MOTIVATION IN URBAN FORESTRY: A SURVEY AND ASSESSMENT OF THE IOWA COMMUNITY TREE STEWARD PROGRAM

A paper to be submitted to the Journal of Extension

Lynetta Vatrice Cleveland and Jan R. Thompson

Abstract

Volunteers play an important role in urban and community forestry. In Iowa, volunteers are offered training in tree care by the Iowa Community Tree Steward (ICTS) program in exchange for volunteer service. However, volunteer engagement in service (e.g. hours committed) is variable among program graduates. The objectives of this study were to (i) examine volunteer motivation among ICTS graduates; and (ii) examine the relationship between motivation factors and participants’ level of activity. A mail questionnaire sent to 374 program graduates focused on participants’ agreement with statements about values, understanding, personal development, community concern, esteem, and advocacy. Respondents agreed most strongly with statements about understanding (learning) and values (helping improve the environment). Independent regression analyses for motivation and advocacy factors with three indicators of volunteer service indicated strong relationships for values, personal development, and advocacy with different indicators of volunteer service. Extension programming can be modified to address factors that lead to greater levels of volunteer service.
Introduction

Urban forests play a vital role in Iowa’s dominantly agricultural landscape. Iowa’s community forests provide an average of thirty percent tree cover and are made up of thirty to forty-five tree species (Iowa DNR, 2001). Many of Iowa’s community forests are located in small towns: 919 out of 950 towns have populations of 10,000 or fewer residents (U.S. Census Bureau, 2004). In the majority of small communities, however, trees may not receive proper care and maintenance, due to a lack of trained personnel to carry out these tasks, and lack of budgetary resources. Typically, larger metropolitan communities have funds allocated for urban forest management and professionals that are readily available to assist in projects. In a survey by Schroeder and coworkers (2003), residents in communities with populations less than 25,000 reported that they were not likely to support use of limited municipal funds for managing public trees. In small communities, this often leads to a community tree resource that is in poor condition (e.g. Groninger et al., 2002). One way to address this problem has been to educate citizen volunteers to care for and manage community tree resources (Johnson, 1995, Still and Gerhold, 1997, and Groninger et al., 2002).

In 1990, the Iowa Urban and Community Forestry Council, (in cooperation with Iowa State University (ISU) Extension, the Forestry Division of the Iowa Department of Natural Resources, and the non-profit organization Trees Forever) began to develop programs to educate citizens on urban forestry issues; one such program is the Iowa Community Tree Steward (ICTS) Program. The ICTS program, administered through ISU Extension, trains volunteers in tree identification, proper tree planting and maintenance, tree diseases, insect pests, and how to implement community tree programs within their
communities. Participants in the ICTS program complete 24 hours of training and are expected to contribute 24 hours of community service (Feeley, 2004).

As of 2003, 519 people have completed the ICTS program and have contributed 14,971 public service hours (Feeley, 2004). On average, this represents 29 hours per person, an overall indicator of success in engaging participants in community tree care. However, volunteer hours have not been evenly distributed - some volunteers have contributed hundreds of hours, whereas others have not contributed any.

Understanding volunteer motivation is important for programs that essentially “trade” training for future service. Although there are other benefits associated with such training programs (e.g. greater level of awareness and appreciation for natural resources, in addition to the knowledge base directly related to the program’s focus, for example Rohrberg-Johnson, 2002), for the Tree Steward program donation of volunteer hours is vital in terms of hands-on resource management.

**Volunteer Motivation**

Evaluation of the literature on volunteer motivation reveals that it is complex and context-specific. Overarching factors that have been cited as important include generally pro-social values (for example, making a difference in the lives of others, Braker et al. 2000; White and Arnold, 2003), desire to participate in the mission of a sponsoring organization, and maintaining a positive image within one’s community (Rioux and Penner, 2001).

Previous studies of volunteers in natural resources and environmental programs in specific have determined that a number of other factors may influence volunteer motivation and commitment. Values (e.g. toward helping the environment) have been found to be strong
motivators of volunteers in restoration and water monitoring programs (Donald, 1997, Grese et al., 1999, Schroeder, 1999, and Ryan et al., 2001). Learning has also been reported to be important to natural resource volunteers (Still and Gerhold, 1997 and Ryan et al. 2001). Personal development (meeting others with similar interests) was also found to be a strong motivator (Donald, 1997). Community concern (Westphal and Childs, 1994, and Still and Gerhold, 1997) and esteem enhancement (Johnson, 1995) have also been reported to be important to volunteers.

**Objectives**

The main objective of this study was to assess factors affecting Tree Stewards’ motivation to contribute volunteer hours. We used a five-factor motivation scale based on the framework created by Omoto and Snyder (1995) in their comprehensive examination of volunteers’ values, understanding, personal development, community concern, and esteem enhancement. A second objective was to examine the relationships between responses to motivation and advocacy statements and participants’ reported level of activity. Our goal was to determine whether certain factors are related to consistent participation in volunteer service, and could be encouraged through training to provide greater return on the investment made in Tree Stewards.

**Materials and Methods**

*Survey Administration and Content*

In fall 2004, a survey questionnaire was developed by Iowa State University Department of Natural Resource Ecology and Management personnel, with input from Iowa Department of Natural Resources personnel and Iowa State University extension staff. The
survey was designed to query graduates of the Iowa Community Tree Steward program (ICTS) about their experiences in volunteering.

The questionnaire was mailed to 374 randomly selected ICTS graduates that had completed the program between 1994 and 2004. Iowa Department of Natural Resources staff, Iowa State University staff, and employees of non-profit organizations that work with volunteers in Iowa that had enrolled in the program were excluded from participation. Questionnaires were mailed (following the protocol of Dillman, 2000) with a cover letter explaining the purpose of the survey and a postage-paid business reply envelope for participants to return the survey. Two weeks later, reminder postcards were sent to non-respondents. Two weeks after the reminder postcards, a second copy of the survey was sent to non-respondents.

The questionnaire contained 31 questions about respondents’ motivation, advocacy for trees and natural resources, types of volunteer activities engaged in, and impact on community tree management. Questions were presented in three formats: multiple choice, a five-factor Likert scale (strongly agree-strongly disagree), or as yes or no queries. The survey also included questions about ICTS program participants’ initial contact with the program and continued involvement in other similar courses.

Three to five questions were posed related to respondents’ motivation in each of five areas known to influence volunteers in other contexts: values, understanding, personal development, community concern, and esteem enhancement. Four questions that focused on volunteers’ level of advocacy (promotion of trees and natural resources) also were presented in the Likert-scale format.
Questions that addressed respondents’ choice of activities and level of community natural resource management were also included. Volunteer activities were presented as a “circle all that apply” query (including items such as tree planting, tree pruning, and street tree inventory).

Data Analysis

Summary data were tabulated to describe percentages of survey participants that selected one of five Likert-scale responses to each questionnaire statement. Statistical analyses included calculating Cronbach’s alpha (Cronbach, 1951) for motivation and advocacy scales as well as motivation subscales using the ALPHA function in SAS®. Independent regression analyses were conducted between responses to motivation and advocacy statements to examine relationships between those scales to volunteer hours, reported instances of collateral volunteering, and the number of activities that respondents reported doing. Regression analyses were run for composite scores for subscales (motivation) or whole scale items (advocacy) using the PROC CORR function in SAS®.

Cronbach’s alpha values > 0.70 were accepted for internal consistency for the scale and subscales tested (Nunaly, 1978). Statistical significance for the regression analyses was determined for p< 0.05.

Results

Respondent Characteristics

The response rate for the questionnaire was 62% (Table 1). The majority of respondents were males (60%) and the average age of respondents was 52. The majority of
respondents were full-time employees (56%) followed by retired persons (26%). Twenty-one percent of respondents were employed in the tree care industry (Table 1).

Responses to Motivation and Advocacy Statements

A majority of respondents agreed with statements related to values (Table 2) and strongly agreed with those related to understanding (Table 3). Survey respondents also agreed, but less strongly, with statements related to personal development (Table 4) community concern, and esteem enhancement (Table 5). Survey respondents also strongly agreed with statements related to advocacy for trees and natural resources (Table 6).

Responses to Number of Hours, Activities, and Instances of Collateral Volunteering

Respondents reported contributing a wide range of volunteer service, from zero to over 100 hours (Table 7). A number of respondents (22%) indicated service levels below that required by the CTS program. However, a significant proportion (37%) reported serving over 100 hours. Most respondents (54%) reported participating in 3 to 5 different kinds of volunteer activities, and many (29%) reported conducting 6 to 8 kinds of activities (Table 7). Instances of collateral volunteering (bringing skills from a primary vocation) were fewer, with 82% of respondents indicating only 1 or 2 instances of collateral volunteering.

Regression Analyses

For the motivation subscales, a significant relationship was detected for agreement with values statements and instances of collateral volunteering (Table 8). Regression also indicated significant relationships between responses to statements about personal development and number of reported hours and number of reported activities. A significant relationship was also detected between responses to advocacy statements and hours of reported volunteer service. Values of Cronbach's alpha indicated good internal consistency
for motivation overall, and for two of the motivation subscales, values and personal
development (Table 8). The advocacy scale also was internally consistent (Table 8).

Discussion

We examined responses to statements related to five motivational factors and
advocacy factors by Iowa Community Tree Steward program participants. We also examined
the relationship between motivation and advocacy factors and respondents’ reported level of
volunteer activities.

Respondent Characteristics

Survey respondents included 219 out of 519 CTS participants up to the time of survey
administration. We were surprised to learn that many respondents were full-time employed
(given our general impression of the demographics of the group we anticipated more
retirees). A number of respondents were employed in the tree care industry, and appear to be
interested in pursuing training and volunteer activities related to their profession.

Motivation and Advocacy

Respondents to our survey generally agreed with statements that their values played a
role in their decision to participate in the ICTS program, but responses to a question about
obligation to the environment were less strong. However, “helping the environment” has
been described both as an important purpose for volunteers (e.g. Donald, 1997, Schroeder,
1999) and as a benefit for volunteering (Grese, 1999) in environmentally-oriented volunteer
programs. Respondents’ strongest agreement occurred for the three items on the
understanding subscale. Based on the results of other studies, opportunities to learn and
develop new skills are often reported as important to volunteers (Still and Gerhold, 1997 and
Ryan et al., 2001) and may be particularly important in the recruitment phase (Grese et al.,
In this sense, participants with a desire to pursue life-long learning opportunities appear to self-select for education-oriented programming, and continuing to offer new learning opportunities may be important to retain these participants.

Although many respondents strongly agreed that they enjoyed meeting others with similar interests, their responses to other statements about interacting with others and developing relationships with others demonstrated less strong agreement. Ryan et al. (2001) and Donald (1997) also indicated that social interaction was not ranked as important by volunteers as were items related to learning and helping the environment. In the case of Community Tree Stewards, although they participate with a group of likeminded persons in the class, they are dispersed and often perform their volunteer service individually, thus as time goes on social interaction may not be as important to them.

Respondents generally agreed with statements related to community-level tree management and community betterment. Given the explicit purpose of the Community Tree Stewards, this is not surprising. An additional factor may be that Stewards have a sense of ownership (e.g. Groninger et al., 2002) due to their place-based resource management emphasis. For statements related to self-esteem, however, many respondents indicated they had no opinion or even disagreed. This is consistent with their lower ranking of social interactions in general and probably also related to the often solitary nature of their work.

Survey respondents strongly agreed with statements about promoting trees and tree care and getting people involved in natural resources issues. On a separate item a number of respondents (48%) also reported that being an advocate for trees was one of their volunteer activities. Some respondents (27%) also reported that they talked with community leaders about natural resource-related issues. The generally positive ratings for advocacy items and
the relative importance respondents attributed to other getting people involved, suggests that this group of volunteers may also be helpful in recruitment of additional Tree Stewards or volunteers for other natural resources-related efforts.

Responses to Number of Hours, Activities, and Instances of Collateral Volunteering

Even though all respondents generally agreed with statements related to learning about and being involved in tree care, their level of reported volunteer service was highly variable. In other words, what Tree Stewards think is important with respect to tree care in their communities doesn’t always translate into action. Volunteers that are active report being engaged in a variety of different tasks which indicates flexibility and a range of potential benefits for resource management. Volunteers reported bringing a number of skills from different primary vocations to their volunteer activities, which has been reported as an important benefit of volunteer partnerships (Westphal and Childs, 1994).

Regression Analyses

Volunteers’ level of agreement with values statements was most strongly linked to their reported level of collateral volunteering. It appears more likely that volunteers who identify strong values related to tree care and helping the environment are more likely to bring other skills to bear in their volunteer activities. Although respondents’ strongest agreement in our study was with statements related to understanding, no relationship was detected between those responses and the indices of volunteer activities that were measured. Grese et al. (1999) suggested that understanding and skill development were important benefits to volunteers, but may not serve as important motivators to engage in additional volunteer service activities. Similarly, Ryan et al. (2001) found that while understanding was ranked highly by volunteers, it was not strongly related to commitment.
Conversely, respondents generally agreed less strongly with statements about personal development, but regression suggests a strong relationship between personal development and both number of hours and number of different activities. This is also consistent with findings of Ryan et al. (2001) for social factors leading to stronger levels of commitment. Respondents generally agreed with statements about advocacy for trees and tree care, and regression detected relationships between these responses and number of reported volunteer hours. Volunteers that consider advocacy important may serve more hours merely by reporting advocacy activities as part of their volunteer service hours. However, commitment to advocacy may also be a motivating factor that leads to more service hours toward a variety of other activities.
Conclusions

Overall, ICTS volunteers have contributed a significant amount of volunteer service to resource management in their communities. However, volunteer contributions of time are highly variable, ranging from zero to over 100 hours, and variability appears to be related to several motivational factors. Among factors known to be related to motivation, survey respondents indicated strongest agreement with those related to understanding and values, and less strong agreement with those related to community concern and self-esteem. Participants’ enrollment in the program in and of itself is strongly linked to the importance they assign to understanding and skill development.

However, regression analyses suggest that respondents’ rankings of importance for different motivational and advocacy factors were not consistent with their reported level of activities. For example, even though respondents’ strongest agreement was with statements related to understanding, there did not appear to be a relationship to any of the indicators of level of volunteer engagement that we examined.

Program delivery staff are interested in increasing consistent volunteer participation in active resource management. Our results suggest that personal development (although not ranked highly by respondents) is strongly linked to volunteer activities. Creating or encouraging opportunities for volunteers to conduct activities in small groups rather than as isolated individuals may result in more active volunteer participation. In addition, including specific education focused on advocacy may also motivate volunteers to contribute more hours of service and have added benefits in recruiting additional volunteers.
ACKNOWLEDGEMENT

Funding for this research was provided by the Iowa Department of Natural Resources, through the Iowa Urban and Community Forestry Council. A graduate assistantship was provided by the Iowa State University Graduate Minority Assistantship Program. The following people played a significant role in this project: Chris Feeley, Paul Wray, Randy Cook, Matt Brewer, Mary Lou Secor, John and Marcia Hogan, Richard and Elaine Naeve, and Cory Heilman.
Literature Cited


Table 1. Percentage of completed usable surveys and respondent characteristics for Iowa Community Tree Steward Survey.

<table>
<thead>
<tr>
<th>Surveys mailed</th>
<th>374</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey “returned to sender” or incomplete</td>
<td>14</td>
</tr>
<tr>
<td>Completed surveys</td>
<td>219</td>
</tr>
<tr>
<td>Response rate</td>
<td>62%</td>
</tr>
<tr>
<td>Response characteristics</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>60%</td>
</tr>
<tr>
<td>Mean age</td>
<td>52 years</td>
</tr>
<tr>
<td>Employment status</td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>1%</td>
</tr>
<tr>
<td>Retired</td>
<td>26%</td>
</tr>
<tr>
<td>Homemaker</td>
<td>4%</td>
</tr>
<tr>
<td>Full time</td>
<td>56%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
</tr>
<tr>
<td>Not employed</td>
<td>0%</td>
</tr>
<tr>
<td>Part time</td>
<td>11%</td>
</tr>
<tr>
<td>Tree care employed (n =154)</td>
<td>21%</td>
</tr>
</tbody>
</table>
Table 2. Percentage of survey respondents’ responses to statements about volunteer motivation in relation to values based on a five-factor Likert scale.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>No Opinion</th>
<th>Somewhat Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>My values played a role in my decision to enroll in the course. (n=202)</td>
<td>75%</td>
<td>21%</td>
<td>2%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Being involved in tree related activities is important. (n=191)</td>
<td>63%</td>
<td>32%</td>
<td>4%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>I have an obligation to the environment. (n=193)</td>
<td>60%</td>
<td>27%</td>
<td>10%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>Other people in CTS share my values. (n=297)</td>
<td>52%</td>
<td>32%</td>
<td>15%</td>
<td>1%</td>
<td>0%</td>
</tr>
</tbody>
</table>
Table 3. Percentage of survey respondents’ responses to statements about volunteer motivation in relation to understanding based on a five-factor Likert scale.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>No Opinion</th>
<th>Somewhat Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I like learning about tree care. (n=200)</td>
<td>91%</td>
<td>8%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>I like working with trees. (n=203)</td>
<td>85%</td>
<td>15%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>I like being informed about new developments in tree care. (n=207)</td>
<td>81%</td>
<td>17%</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>
Table 4. Percentage of survey respondents’ responses to statements about volunteer motivation in relation to personal development based on a five-factor Likert scale.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>No Opinion</th>
<th>Somewhat Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I enjoy meeting others with similar interests. (n=204)</td>
<td>74%</td>
<td>23%</td>
<td>3%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Volunteer activities allow me to interact with others. (n=200)</td>
<td>53%</td>
<td>41%</td>
<td>4%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>My volunteer activities help me develop relationships with others. (n=207)</td>
<td>43%</td>
<td>41%</td>
<td>11%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Participating in other organizations helps me sustain my interest in volunteerism. (n=194)</td>
<td>27%</td>
<td>30%</td>
<td>33%</td>
<td>3%</td>
<td>7%</td>
</tr>
<tr>
<td>I like to lead volunteer activities. (n=192)</td>
<td>26%</td>
<td>29%</td>
<td>23%</td>
<td>17%</td>
<td>6%</td>
</tr>
</tbody>
</table>
Table 5. Percentage of survey respondents' responses to statements about volunteer motivation in relation to community concern and enhancement based on a five-factor Likert scale.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>No Opinion</th>
<th>Somewhat Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Community Concern</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Promoting tree care in my community is important. (n=201)</td>
<td>75%</td>
<td>24%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>I enjoy contributing to my community's betterment. (n=186)</td>
<td>73%</td>
<td>25%</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Volunteer tree work makes me feel like a part of the community. (n=197)</td>
<td>56%</td>
<td>30%</td>
<td>13%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Esteem Enhancement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doing community tree work enhances my sense of well being. (n=202)</td>
<td>58%</td>
<td>28%</td>
<td>10%</td>
<td>1%</td>
<td>3%</td>
</tr>
<tr>
<td>My level of volunteer activities is influenced by significant others. (n=193)</td>
<td>16%</td>
<td>25%</td>
<td>24%</td>
<td>25%</td>
<td>10%</td>
</tr>
<tr>
<td>My neighbors' opinions positively influence my volunteer activities. (n=202)</td>
<td>9%</td>
<td>20%</td>
<td>43%</td>
<td>9%</td>
<td>19%</td>
</tr>
</tbody>
</table>
Table 6. Percentage of survey respondents’ responses to statements about advocacy for trees and natural resources based on a five-factor Likert scale.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>No Opinion</th>
<th>Somewhat Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promoting trees and tree care in my state is important. (n=199)</td>
<td>78%</td>
<td>21%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Getting people involved in natural resource issues is important. (n=197)</td>
<td>73%</td>
<td>23%</td>
<td>4%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Promoting trees and tree care is an important part of my volunteer work. (n=193)</td>
<td>57%</td>
<td>30%</td>
<td>11%</td>
<td>2%</td>
<td>0%</td>
</tr>
<tr>
<td>I like to make my neighbors aware of tree related issues in my neighborhood. (n=200)</td>
<td>47%</td>
<td>39%</td>
<td>13%</td>
<td>1%</td>
<td>0%</td>
</tr>
</tbody>
</table>
Table 7. Percentage of responses by survey participants to statements about number of hours contributed, activities undertaken, and instances of collateral volunteering.

<table>
<thead>
<tr>
<th>Volunteer hours</th>
<th>0</th>
<th>1-20</th>
<th>21-60</th>
<th>61-100</th>
<th>Over 100</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8%</td>
<td>14%</td>
<td>27%</td>
<td>9%</td>
<td>37%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Occurrences</th>
<th>1-2</th>
<th>3-4</th>
<th>5-6</th>
<th>7-9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activities</td>
<td>16%</td>
<td>36%</td>
<td>28%</td>
<td>20%</td>
</tr>
<tr>
<td>Collateral Volunteering</td>
<td>82%</td>
<td>17%</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

1 Number of reported events of volunteer activities and instances of collateral volunteering
Table 8. Internal consistency of motivation and advocacy scales (Cronbach’s $\alpha$) and results of regression between motivation factors and indices of volunteer commitment.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Number of Items</th>
<th>Cronbach’s $\alpha$</th>
<th>Number of Hours</th>
<th>Number of Activities</th>
<th>Instances of Collateral Volunteering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Values</td>
<td>4</td>
<td>0.71</td>
<td>0.56</td>
<td>0.92</td>
<td>0.006</td>
</tr>
<tr>
<td>Understanding</td>
<td>3</td>
<td>0.63</td>
<td>0.60</td>
<td>0.18</td>
<td>0.90</td>
</tr>
<tr>
<td>Personal development</td>
<td>5</td>
<td>0.73</td>
<td>0.003</td>
<td>0.006</td>
<td>0.51</td>
</tr>
<tr>
<td>Community concern</td>
<td>3</td>
<td>0.53</td>
<td>NT</td>
<td>NT</td>
<td>NT</td>
</tr>
<tr>
<td>Esteem enhancement</td>
<td>3</td>
<td>0.61</td>
<td>NT</td>
<td>NT</td>
<td>NT</td>
</tr>
<tr>
<td>Sum motivation</td>
<td>18</td>
<td>0.76</td>
<td>0.10</td>
<td>0.06</td>
<td>0.14</td>
</tr>
<tr>
<td>Advocacy</td>
<td>4</td>
<td>0.71</td>
<td>0.02</td>
<td>NT</td>
<td>NT</td>
</tr>
</tbody>
</table>

NT=Not tested
CHAPTER 3: CONCLUSIONS

This research assessed factors known to be related to motivation among graduates of the Iowa Community Tree Steward Program. A mailed survey was used to query ICTS participants about motivation (values, understanding, personal development, community concern, and esteem enhancement) and advocacy, and the relationships between these responses and reported levels of volunteer activity.

Respondents most strongly agreed with statements related to understanding, followed by values. This represents respondents’ desire to learn new skills and their interest in helping the environment. These findings are generally in agreement with findings in previous research (Still and Gerhold, 1997 and Ryan et al., 2001).

Motivation and advocacy responses were regressed against volunteer hours, number of volunteer activities, and instances of collateral volunteering (these items which were designated as indices of sustained volunteer commitment). These analyses found relationships between values and instances of collateral volunteering, and between personal development and number of volunteer hours and number of activities. The relationship between values and collateral volunteering is important because volunteers appear to be bringing a number of skills from their vocations to their volunteer activities. Volunteers that have other skills to bring to their volunteer activities can enhance community tree resource management. The relationship between personal development and hours of service and number of activities may indicate that volunteers are encouraged by interaction with others, which may give them a push in the right direction in their volunteer activities.

We also examined the relationship between participants’ volunteer advocacy and reported level of activity. Respondents of our survey reported engaging in a wide range of
activities. Some Tree Stewards have contributed more than the required amount of hours (37%). However, others have completed fewer than the required hours (22%).

Overall, participants of the Iowa Community Tree Steward program are active and may be motivated by many things. This study has many implications for extension programming to create and sustain volunteer commitment. Program managers may consider giving volunteers more opportunities to work in groups to complete projects. These groups may give volunteers the motivation they need to complete projects that they may not feel comfortable taking on by themselves. Program staff may also want to include sessions training participants to become advocates for tree management in their communities.

**Literature Cited**


APPENDIX A

IOWA COMMUNITY TREE STEWARD SURVEY COVER LETTER

September 20, 2004

Dear Addressee:

Members of the Natural Resource Ecology and Management Department at Iowa State University are conducting a survey of the graduates of the Iowa Community Tree Steward Program. The purposes of this survey are to examine the contribution of volunteer activity to community tree management in Iowa, to consider different factors that affect volunteer motivation, and to determine if and how the Community Tree Steward Program could be enhanced. You are being asked to participate in this study because you are a graduate of the Iowa Community Tree Steward Program.

If you agree to participate in this study, please complete the enclosed questionnaire about your experiences as a Community Tree Steward graduate. It should take you approximately 20 minutes to complete. A self-addressed envelope has been provided for you to return the survey to us. You may skip any question that you do not wish to answer or that makes you feel uncomfortable. If for some reason you choose not to participate in this survey, please let us know by returning the uncompleted questionnaire.

There will be no direct risk or benefit to you, personally, as a result of your decision to participate in this study. However, it is hoped that the information gained by conducting this research will enhance the CTS program and also help current and future tree care volunteers in improving our urban and community tree resources.

If you have any questions or concerns about this study, or would like a copy of the results, please feel free to contact us at the address or phone on the letterhead above. If you have any questions about the rights of research subjects, please contact the Human Subjects Research Office, 2810 Beardshear Hall, (515) 294-4566; austingr@iastate.edu or the Research Compliance Officer, Office of Research Compliance, 2810 Beardshear Hall, (515) 294-3115; dament@iastate.edu.

We would like to thank you in advance for considering participation in this important study.

Sincerely,

Jan Thompson
Associate Professor
Department of Natural Resource Ecology and Management
Iowa State University

Lynetta Cleveland
Research Assistant
Department of Natural Resource Ecology and Management
Iowa State University
### Iowa Community Tree Steward Graduate Survey

Thank you for choosing to participate in this survey. Your answers will help us evaluate the effectiveness of the Community Tree Steward program and its impact on Iowa’s communities. This survey should take about 20 minutes to complete. Your responses will be kept confidential and any information released will be based on a large number of respondents and will not include anything that could identify you personally. Please answer the questions on the following pages and return this form using the envelope provided. If you have any questions, please contact Dr. Jan Thompson or Lynetta Cleveland by phone at 515-294-1458, by email at lynetta@iastate.edu, or by the mailing address on the cover letter included with this survey.

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How did you hear about the Community Tree Steward (CTS) Program?</td>
<td>1= Master Gardener program, 2= newspaper announcement, 3= friend, 4= radio advertisement, 5= Other (please specify): _____________</td>
</tr>
<tr>
<td>2. Why did you choose to participate in the CTS Program?</td>
<td>1= A desire to work outdoors, 2= To learn more about natural resources, 3= A specific interest in trees, 4= To improve my community, 5= Other (please specify): _____________</td>
</tr>
<tr>
<td>3. Which of the following seminars or short courses offered by Iowa State or Extension staff have you attended?</td>
<td>1= Shade Tree Short Course, 2= Master Gardener, 3= Community Tree Steward Reunion, 4= Master Woodland Manager, 5= Master Conservationist, 6= Master Conservationist, 7= Other ISU sponsored (please specify): _____________</td>
</tr>
<tr>
<td>4. What seminars or training sessions offered by other entities (non-ISU) related to natural resource management (Non-ISU) have you attended?</td>
<td>1= Trees Forever workshop, 2= Local or federated garden club seminar, 3= Iowa DNR programs, 4= Programs at arboreta, 5= Programs at public gardens, 6= Other ISU sponsored (please specify): _____________</td>
</tr>
<tr>
<td>5. Have you contributed volunteer hours since your tree steward training?</td>
<td>Yes, No: 1, 2</td>
</tr>
<tr>
<td>6. Approximately how many hours have you contributed to your community since completing the CTS program?</td>
<td>1= None, 2= 21-60, 3= 1-20, 4= over 100, 5= don’t know, 6=61-100</td>
</tr>
</tbody>
</table>
7. Please circle the answer that best describes your opinion of the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>No Opinion</th>
<th>Somewhat Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I think the CTS program is well organized.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I am happy I enrolled in the program.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I am confident enough to practice the techniques I learned through CTS in my community.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I think a follow-up course would be helpful.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>My values and beliefs played a role in my decision to enroll in the course (e.g. personal responsibility, stewardship, environmental ethics, etc.).</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Other people who participate in the CTS program share some of my values.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>My neighbors opinions positively influence my volunteer activities.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I think the overall program was effective.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I accomplished what I planned to when I enrolled in the course.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I think the instructors were knowledgeable.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>The instructors were prepared.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I think the CTS program should be modified.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

If your answer to the last item above is a 1 or 2, please briefly identify your recommendations for changes:

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

8. Have you reported your hours to CTS trainers at ISU Extension? 1 2

9. Which of the following skills from your primary vocation have been useful in your volunteer activities? (Please circle all that apply)

1= clerical skills
2= knowledge of legal documents
3= program planning skills
4= knowledge of grant writing
5= Other (Please specify) 6= skills in educating others
10. Please circle the answer that best describes your opinion of the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>No Opinion</th>
<th>Somewhat Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I like having an opportunity to learn about trees and tree care</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I enjoy meeting others with similar interests</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I like to gain experience working with trees</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I enjoy contributing to my community’s betterment</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Volunteer tree work makes me feel like a part of the community</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I have an obligation to act to improve the environment</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Doing community tree work enhances my sense of well being</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

11. What types of activities have you done in your community? (Please circle all that apply)

1= Tree planting
2= Street tree inventory
3= Tree pruning
4= Answering phones at county extension office
5= Providing advice to neighbors
6= Advocacy for trees
7= Consulting with community personnel
8= Talking with political leaders about natural resource issues
9= Providing leadership (i.e. tree board member)

Yes No

12. Are trained forestry professionals readily available to your community? 1 2

13. Have trained forestry professionals been helpful in your volunteer efforts? 1 2

14. Is there regular communication between volunteers in your community and forestry professionals? 1 2

15. Is there a need for forestry professionals in or near your community? 1 2

16. How would you rate the relationship between volunteers in your community and forestry professionals?

1= Good
2= Fair
3= Poor
4= N/A doesn’t apply no forestry professional
5= Other (please specify) _________________
17. Do you contribute volunteer service to any of the following? (Please circle all that apply)

1= Iowa Woodland Owner’s Association  
2= Izaak Walton League  
3= Sierra Club  
4= The Nature Conservancy  
5= Trees Forever  
6= Iowa Natural Heritage Association  
7= Other (please specify): ____________________________

18. Please circle the answer that best describes your opinion of the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>No Opinion</th>
<th>Somewhat Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volunteer activities are pleasant.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Volunteer activities are like a chore or job.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Volunteer activities give me an opportunity to interact with others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Promoting trees and tree care is an important aspect of my volunteer work</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Being involved in tree-related activities is important.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>My volunteer activities have fit well in my community’s resource management program.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I have difficulty generating ideas for tree-related volunteer activities.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I like to lead volunteering activities.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Community leaders actively facilitate my volunteer efforts.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>There have been measurable changes in my community’s resource management since I took the CTS program.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Participation in other organizations (e.g. Trees Forever) helps to sustain my interest in tree-related volunteerism.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I prefer to work with a group of volunteers to get things done.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>My level of volunteer involvement is influenced by significant others (e.g. spouse or close friend).</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

19. How have your attitudes toward trees and other natural resources changed as a result of taking the CTS program? (Please circle all that apply)

1= I have become more aware of my natural surroundings  
2= I appreciate trees more  
3= No, my attitudes have not changed  
4= Other (please specify) ____________________________
20. How did you feel during your most recent volunteer activity? (Please circle only one)

1 = Energized
2 = Stressed
3 = Relaxed
4 = Challenged
5 = Happy
6 = Burned out
7 = Other (please specify) ________________________________

21. My community’s tree management could best be characterized as: (Please circle only one)

1 = Minimal/Reactive (Example: removing hazard trees)
2 = Program-level activities (Example: Active organized tree board)
3 = Project level management (Individual planting and maintenance)
4 = Sustained program (Example: Complete street tree inventory and ongoing maintenance)
5 = Moderate/Planned Action (Tree planting and pruning)
6 = None
7 = Developing program (Recently established tree program)
8 = Other (please specify) ________________________________

22. Please circle the answer that best describes your opinion of the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>No Opinion</th>
<th>Somewhat Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting people involved in natural resource related issues is important.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I like being informed about new developments in tree care.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Promoting trees and tree care in my community is important.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Promoting trees and tree care in my state is important.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I like to make my neighbors aware of tree related issues in our neighborhood.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Volunteering has helped me to develop skills that I can use in my daily life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>My volunteer activities have helped me develop relationships with others in my community.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I find volunteering to be rewarding and I have contributed more than the required hours.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
23. What is the most valuable thing you gained from taking the CTS program? (Please circle only one)

1= General knowledge of trees and natural resources
2= Proper techniques for tree planting
3= Tree identification knowledge
4= Knowledge of tree diseases
5= Information on conducting a tree inventory
6= Other (please specify) ____________________________

Yes No

24. Do you know of anyone who is interested in taking the CTS program? 1 2

25. Would you recommend the CTS program to others? 1 2

26. Have you recommended the program to others? 1 2

27. What type of additional training would be most useful to you? (Please circle only one)

1= Advanced CTS (more information on similar topics)
2= Leadership training (e.g. how to mobilize people and resources in your community)
3= How to give effective presentations to community organizations
4= Train the trainer (how to effectively teach technical skills to others)
5= Other (please specify) ____________________________

28. Are you interested in volunteering in other natural resources related areas?
1= water monitoring
2= prairie restoration
3= keepers of the land

29. Please provide the following background information:

Your age ______
Your gender M F
The approximate population of your community ______

30. What is your current employment status? (Please circle only one)

1= Full-time
2= Part-time
3= Homemaker
4= Student
5= Retired
6= Not currently employed
7= Other (please specify) ____________________________

Yes No

31. If employed, do you work in the tree care industry? 1 2

Thank you very much for your time. If you have any additional comments that we should consider please include them here or on an additional sheet of paper.
ACKNOWLEDGEMENTS

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