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PARTNERSHIPS IN URBAN FORESTRY: CITIES AND NONPROFIT TREE PLANTING ORGANIZATIONS IN THE NORHTEASTERN UNITED STATES

By

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ABSTRACT

PARTNERSHIPS IN URBAN FORESTRY: CITIES AND NONPROFIT TREE PLANTING ORGANIZATIONS IN THE NORTHEASTERN UNITED STATES

By Katherine E. Armstrong

Trees in cities are important resources that have long commanded the attention and efforts of tree care professionals and volunteers alike. Volunteer involvement is often through nonprofit tree planting groups. Questionnaires were sent by mail to tree planting groups and the city forestry programs under whose jurisdiction they operate. The study area was the USDA Forest Service Northeastern Area, encompassing 20 states and the District of Columbia. How tree groups and city forestry perceive the urban forest and the role and importance of volunteers was examined. Additionally, the relationship and quality of communication between the groups was explored. Generally speaking, there were very few differences in the way the two groups responded. Both tree groups and city forestry programs shared similar perceptions of the urban forest and valued volunteers highly. Cities rated the quality of work performed by tree groups highly and both groups reported communicating well with the other.

Dedicated to Dr. J. James Kielbaso
Thanks for inspiring me to become an urban forester.

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I. Introduction

Urban forestry and the quality of life in urban areas are inextricably connected. A healthy urban environment is dependent upon the presence of a well-maintained and properly managed urban forest. The 'urban forest' can be defined as, "the sum of all woody and associated vegetation in and around dense human settlements, ranging from small communities in rural settings to metropolitan regions (Miller 1997:27). Estimates vary as to how much urban forest exists in the United States. In 1998 the US Forest Service reported that urban forest lands occupy more than 70 million acres in the United States (USDA 1998). The task of managing this resource is referred to as urban forestry. The role of the urban forester includes "the planning for and management of a community's forest resources to enhance the quality of life. The process integrates the economic, environmental, political and social values of the community to develop a comprehensive management plan for the urban forest" (Miller 1997:31).

The responsibility for caring for urban trees is great, especially when one considers the myriad benefits enjoyed by those who live among trees. Trees provide many benefits such as shade, oxygen, wildlife habitat, noise and air pollution reduction, floodwater control and beauty. Urban trees also provide jobs, rejuvenate soils and provide much needed recreational opportunities (Bock 1997). Because of these facts, the benefits of urban forests are coming to be viewed as "essential components of the economic, social and environmental well-being of our communities" (Bock 1997).

The benefits of the urban forest do not come without cost. Urban foresters maintain trees that are contending with conditions and challenges quite different than would be encountered in a rural forest. These conditions can be extreme and can require

intensive management. Urban forestry program costs include maintenance expenses such as fertilization, pruning, tree protection, cabling and bracing, insect and disease control, as well as wound and cavity treatment (Miller 1997:261). Additional program costs include tree planting and removals as well as other department expenses such as staffing and equipment. In order to meet the needs of the urban forest, funding for the urban forestry program must be sufficient. Without adequate funding to cover costs, the urban tree resource will not provide the desired benefits (Kuser 2000:119). It has been suggested that when there is not enough urban forestry funding, volunteers can help by supplementing the work of professionals and by providing advocacy and support for the program (Fazio No.36).

The volunteer labor force in the United States is strong and dedicated. In 2000, Independent Sector estimated 83.9 million Americans volunteered their time, for a total of 15.5 billion volunteer hours (Independent 2002). Volunteers are often engaged through the efforts of tax exempt, or nonprofit, organizations. In 1998 there were over 1.5 million nonprofit organizations registered with the Internal Revenue Service (NCCS 2002). It is uncertain how many these volunteer hours or organizations are dedicated to urban forestry pursuits, but it is certain that the potential for increasing nonprofit and volunteer involvement in urban forestry exists.

Today there are many well-established nonprofit organizations dedicated to urban forestry throughout the country. Nonprofit tree groups involve their staff and volunteers in a wide range of urban forestry activities. These groups vary in size and sophistication, but all have a common concern for the urban forest.

The purpose of this study is to explore the relationship and levels of partnership between nonprofit tree-planting organizations and city forestry programs. To accomplish this, nonprofit tree planting groups and city forestry programs in the northeastern United States were surveyed. Surveys gathered data in four main focus areas, characteristics of responding organization or department, perceptions of the urban forest, the role of volunteers in urban forestry, and communication and interaction between the two groups. The research objectives of this study are to determine with whether there are differences in how nonprofit tree planting groups and city forestry programs perceive the urban forest, the role and importance of volunteers in urban forestry and how the two groups interact and communicate. Additionally, information provided by the survey respondents about their organizations and forestry programs is presented to create a 'profile' of respondents.

The need for vibrant, healthy and well-maintained urban forests is so great, it is vitally important to maximize efforts through effective partnerships. The level of partnership between city forestry programs and nonprofit tree groups is not currently known. It is hoped that the information gathered through this study will be used to help these two groups work together to care for our urban forests.

II. Literature Review

Introduction

A large body of literature was reviewed to provide direction and a framework for this study. Areas explored include the field of urban forestry, the nonprofit sector, and volunteerism, with attention given to related studies and surveys. The review of the literature begins with a look at the management of the urban forests with key terms defined and a discussion of budgetary constraints. Nonprofits are then discussed and defined, with an overview of the role of the nonprofits sector and tree planting groups. Literature concerning volunteers, their management and citizen participation is reviewed with an emphasis on the role of the volunteer and tree planting groups in urban forestry.

Management of the Urban Forest

The management of trees in the American landscape began in earnest during the early 18th century. It was during this period that New England town squares were converted from pasturelands into more park-like spaces, complete with lawns and trees (Younker 1990:7). With the arrival of City Beautiful movement later in the century, foresters and landscape architects, such as Frederick Law Olmstead, moved toward a more measured, long term approach that put emphasis both on planning and conserving existing resources (Younker 1990:7).

The development of what would grow to become 'urban forestry' was a gradual progression. Miller identifies three events that led to the concept of urban forestry. First, the increased interface between urban centers and rural woodlands stemming from greater numbers of people concentrated in cities. Second, the influence of urbanites'

social values on the management of rural land helped to shape the development of urban forestry. Thirdly, the negative effects on vegetation in urban areas, interface zones, and rural forests caused by the urbanization process led in part to the concept of urban forestry (1997:1). The tremendous losses sustained from Dutch elm disease in urban areas were another impetus toward 'urban forestry'. Dutch elm disease emphasized the "deplorable state of urban trees in most cities and towns. This ultimately led to the rise of the urban forestry movement following federal regulation to stimulate more large-scale tree planting" (Campana 1999:218).

Historical Timeline

The following section highlights major events or advances in the field of urban forestry.

Late 1800s

- 1872 J. Sterling Morton founded Arbor Day in Nebraska. Arbor Day would go on to play a critical role in building a new urban forest in the Untied States (Campana 1999:59).
- The American Forestry Association (AFA) was founded in 1875, America's oldest nonprofit focused on trees (Johnston 1996:262). The AFA was behind the public concern that led to the creation of the U.S. Forest Service (Moll 1986).

Early 1900s

- Arborists and foresters began to manage urban trees and forests (Miller 1997:33).

1920s

- The National Shade Tree Conference was founded in 1924 to plan a conference focusing on street tree maintenance (Johnston 1996:259).

1930s

- 1930, The detection of Dutch elm disease in Cleveland, Ohio was the first case in North America (Campana 1999:212).
- Throughout the decade pressure built for management of the urban forest, especially necessary to deal with emerging and devastating urban tree diseases (Johnston 1996:258).

1950s

- Passage of the Cooperative Forestry Assistance Act of 1950.

1960s

- Emergence of the concept of "urban forestry" as the management of the total urban forest system (Johnston 1996:258).
- The National Shade Tree Conference changed its name in 1961 to the International Shade Tree Conference (Campana 1999:154).
- In 1967, it was recommended to the President by the Citizen's Committee on Recreation and Natural Beauty that, "an urban and community forestry program be created in the U.S. Forest Service to provide technical assistance, training and research (Miller 1997:33).
- American foresters began to recognize the population and resulting power shift to urban areas (Johnston 1996:258).

1970s

- Urban forestry became a recognized discipline within the field of forestry (Miller 1997:33).
- In 1972 Congress passed the Urban Forestry Act. This bill called on the Secretary of Agriculture to assist states by providing technical assistance for the management of trees in urban areas (Miller 1997:33).
- In recognition of the ever-increasing importance of urban areas, the Society of America Foresters formed an Urban Forestry Working Group in 1972 (Johnston 1996:260).
- Also in 1972, the Cooperative Forest Management Act was authorized, but not funded (Morgan 1989).
- The International Shade Tree Conference became the International Society of Arboriculture in 1974 (Campana 1999:159).
- The National Arbor Day Foundation established the Tree City USA program in 1975 (Johnston 1996:271).
- Cooperative Resource Act of 1978 increased the commitment to urban forestry. Section 6 of this act gave the Secretary of Agriculture the authorization to provide both technical and financial assistance to state foresters (Miller 1997:34, Morgan 1989).
- Also in 1978, the First National Urban Forestry Conference was held in Washington D.C. (Johnston 1996:261).

1980s

- Los Angeles-based TreePeople's 'Million Tree Campaign' was the first to utilize advertising and marketing to further a major urban forestry project (Johnston 1996:266).
- In 1989, the American Forestry Association launched the national Global ReLeaf campaign. This program put a focus on the importance of local action as a way of addressing global environmental concerns (Johnston 1996:266).

1990s

- The 1990 Farm Bill amended the Cooperative Forestry Act, vastly augmenting the government's commitment to urban forestry. Included in this bill: increased Forest

> Service's authority to work with States on technical assistance and grant administration, the creation of a 15 member National Urban and Community Forestry Advisory Council, and a boost in funding from $2.7 million in 1990 to $25 million by 1993 (Miller 1997:34).

Over time, the following terms have evolved to describe different aspects or responsibilities in the field. The definitions given are those that have been used in for the purpose of this study.

The urban forest: "The trees in and around the living spaces of cities, suburbs and rural communities" (Moll 1988:35).

Urban forestry: "The planning, establishment, protection and management of trees and associated plants, individually, in small groups, or under forest conditions within cities, their suburbs and towns" (Miller 5:1997).

Urban & community forestry: "Urban forestry is also referred to as urban and community forestry, or simply community forestry, since many residents of villages, towns, and small cities do not consider themselves urban" (Ball 1997).

Municipal, or city forestry: "The establishment, protection, and maintenance of trees and associated vegetation on public land in communities" (Miller 1997:33). "Tree programs are an investment in a community's future by maintaining the existing urban forest, removing safety hazards, and planting trees that will benefit future generations" (Reeder 1993).

Managing the urban forest: "The planning for and management of a community's forest resources to enhance the quality of life. The process integrates the economic, environmental, political and social values of the community to develop a comprehensive management plan for the urban forest" (Miller 31:1997).

City forester: "Overall program manager whose role is to integrate the work of public agencies and the private sector" (Lipkis 15:1990).

Budgetary Constraints in Urban Forestry

Although urban forestry itself has grown into a widely established profession, funding available to support efforts to maintain urban forests is often insufficient. Kielbaso reported in the 1988 study, 'Trends in Urban Forestry Management', that the biggest obstacle to effective management of the urban forest is "inadequate funding for proper maintenance". In a 1994 follow-up to Kielbaso's study, Tschantz & Sacamano found, "funding for municipal tree management in on the decline. Only a small percentage of municipalities have tried to offset that funding decrease through public education programs or partnerships with public or private groups" (1994:10). Tate's article in the Handbook of Urban and Community Forestry in the Northeast (Kuser ed.) commented that urban and community forest funding has decreased over the past decade. He further noted that without sufficient funding, "the urban tree resource cannot optimize and provide the social, aesthetic, and economic benefits..." (2000:119). Tate stated that the responsibility for, "the health and survival of the urban forest is directly proportional to the ability of the resource manager to obtain funding"(Kuser 2000:107). If resource managers are increasingly unable to obtain funding (ability aside) it stands to reason that the health and survival of our urban forests will suffer.

O'Brien et al. (1992:307) pointed out the unfortunate fact that, "all too often, municipal services that care for trees are viewed as expendable during tough financial times". A variety of strategies exist for increasing budget allocations. Hager et al. (1980)

suggested, "a long-range management plan based on a tree survey should be tailored to a specific town and could be used to justify funding". Additionally, the authors observed that without adequate funding, municipalities would not be able to plan and operate a program that maintains, repairs, removes and replaces the trees they are responsible for.

"Citizens not only influence decisions on how tax dollars are spent, but they can also contribute money, labor and other resources to the urban forest through volunteer programs" (Tschantz & Sacamano 1994:10). "If municipal forestry programs aim to be less reliant on fluctuating municipal budgets, alternative sources of funding and support through partnerships will become increasingly important" (Tschantz & Sacamano 1994:3).

Non Profits in the United States

Nonprofits in the United States continue to grow in number and prominence. This is certainly the case in the field of urban forestry. A **Nonprofit Group** can be defined as: any "formally incorporated organization that is exempt from federal corporate income taxes under sections 501 (c)-(f) or 521 under Title 26 of the United States Tax Code...[The nonprofit sector also] includes community-based organizations, neighborhood associations, social movement organizations, and other voluntary associations that are not formally incorporated" (Hula & Jackson-Elmoore 2000:3). For the purpose of this study, a **Nonprofit Tree Group** is defined as a tax-exempt organization dedicated in large part to the advocacy for, or the planting of, trees.

Nonprofit organizations can be divided into two basic categories, those that serve their membership as compared to those that serve the public (Solamon 1999:23). For

example professional organizations such as the International Society of Arboriculture serve their members by providing training, networking and certification opportunities, whereas a local nonprofit tree-planting organization would fall under the latter category. A community-based organization can be described as "a geographically focused participatory organization rooted in local community institutions. If the market represents exchange and the government represents authority, then it is appropriate to think of the nonprofit sector as a mechanism for cooperation" (Hula & Jackson-Elmoore 2000).

Cabarle and Heiner (1994) examined the role of non-governmental organizations (NGO) in forestry. They define a non-governmental organization as, "a group of people united together into a formal, not-for-profit organization to pursue a social objective". They recognized that the, "common thread in all NGOs is the goal of influencing a social, economic, or environmental problem at the local, national or international level." Like the domestic relationship between nonprofits and municipalities, the relationship of NGOs with governments, "at times is one of collaboration - effectively extending coverage and complementing the impact of official programs. At other times it is one of animosity, distrust and vigorous campaigning to change official policies" (Cabarle and Heiner 1994). Hula and Jackson-Elmoore observe that the rise of the nonprofit sector is more than a reaction to failures in the market and the government. Rather, these authors perceive the actions of nonprofits in a more proactive light, as agents of change striving to affect the environment in which they operate (2000:3-5).

According to Salamon's Partnership Model, governments and nonprofits are drawn to partnerships because the two entities complement one another, where one is

strong, the other is weak, and vice versa (Hula & Jackson-Elmoore 2000:65). Swanstrom and Koschinsky assert the important idea that "governments and nonprofits can accomplish more if they work together" (Hula & Jackson-Elmoore 2000:65). This simple, yet crucial notion may seem like common sense, but is often difficult in practice. The groups must work together in order to set goals and priorities, in addition to identifying areas of strengths and weakness. An advantage of working with nonprofit tree-planting groups is their ability to take the onus of volunteer recruitment, and much of the coordination efforts, away from the municipality. The more well organized the tree-planting group, the more able to provide a reliable source of volunteer labor.

It is useful to consider the costs and benefits associated with the urban forest, particularly when comparing the views of a nonprofit tree planter with a municipal forestry program. More often than not, tree-planting organizations are free to focus entirely on the benefits of the trees they plant. Conversely, municipal tree programs are burdened with the majority of cost (i.e. major pruning, removals).

Sustainability is a consideration for both the manager and citizen alike. Clark et al. (1997) defined sustainability as, "the ability to produce and/or maintain a desired set of conditions or things for some time into the future, not necessarily forever". Their study offered a number of criteria and indicators to gauge the sustainability of an urban forestry program. Two criteria worth noting relate to involvement on the community level and the interaction between citizens, government and businesses. Community involvement was considered sustainable in part if "citizens understand and participate in urban forest management" (Clark et al. 1997). Interactions are deemed sustainable if,

"public agencies, private landholders, the green industry and neighborhood groups all share the same vision of the city's urban forest"(Clark et al. 1997).

Nonprofit tree planting groups appear to be a sustainable presence in urban forestry. Well-established groups such as Los Angeles' TreePeople have been active for over 20 years. Such groups can provide invaluable support to forestry programs as well as encourage great numbers of volunteers to participate in urban forestry activities.

Volunteers, Volunteer Management and Citizen Participation

As stated in the introduction, volunteers are an important force in America that numbered 83.9 million strong in 2000 (Independent 2002). The author of People Power, Brian O'Connell refuted what he called the pervasive view that Americans are less likely today to help one another and to become involved in public issues and causes than in earlier times. On the contrary, O'Connell stated that a "far larger proportion and many more parts of our population are involved in community activity today than in any time in our history" (1994).

Ames (1980) examined the need for community participation, types of citizen participation and the impacts of community participation on tree-planting. He found that community participation was crucial in gaining public acceptance of the trees. This acceptance helps to avoid the common lack of support faced when outsider (read: municipal forestry) goals are forced on community residents. This study did not discount the necessity of municipal tree planting programs, yet recognized the niche in which community tree-planting groups are needed. When compared to a tree that simply

appears, common sense tells us that a resident will care more for a tree they lobbied for, chose the species of and helped to plant.

Lynne Westphal (1993) of the US Forest Service has examined why it is that people volunteer. She found that leading motivators are, "a desire for an improved connection with nature, an ability to do something tangible to help the environment, and a deep appreciation of the aesthetic and emotional benefits of nature". Additional motivators include recognition, altruism or a sense of public duty, social interaction, achievement, the desire for influence and a sense of environmental responsibility (Fazio No. 36).

Dwyer, Schroeder and Gobster (1991) suggest the following reasons for the strong interest in tree planting: 1) Tree planting as a demonstration of commitment to the future; 2) Tree planting as a means of improving the environment; and 3) Tree planting as a possible major impact on the landscape over time. They further noted that, "unfortunately, the deeply held values that motivate people to plant trees often do not find expression in a desire to care for the trees on a regular basis" (1991).

Volunteers enjoy a large range of activities related to urban forestry. Opportunities include tree planting, pruning, performing and maintaining inventories, various maintenance tasks such as remulching and watering, distributing literature, monitoring and reporting vandalism, fundraising, administrative assistance, speaking engagements, service on boards, etc. (Fazio No. 36, Kuser 2001, Westphal and Childs 1994, Wellman and Tipple 1992).

When working with volunteers, managers of municipal tree care programs must consider which tasks are appropriately performed by volunteers. Numerous articles

examine volunteer, nonprofit, or citizen participation in more complex tasks such as large-scale planting projects (Ip 1996, Dawe 1993), street tree inventories (Bloniarz & Ryan 1996) and utility line clearance programs (Barnes 1988). How extensive a role volunteers should play in a forestry program is dependent upon many variables. In Bloniarz and Ryan's 1996 study of volunteer involvement in street tree inventories, they listed costs associated with volunteers as: recruitment, training, mobilization, and logistical support. According to a study by Tschantz & Sacamano (1994), municipalities noted that nonprofit groups offer the greatest assistance in the following areas: "assistance with planting programs, written/vocal support, funding support, assistance with maintenance, and assistance with educating the public on the importance of trees and tree management".

Volunteers and citizen involvement are important components of urban forestry, however their involvement is not always appropriate or sought after. Westphal and Childs (1994) noted that, "professional urban foresters may feel that volunteers aren't capable of highly skilled work, that they can't consistently count on volunteers, or that volunteers may challenge their professional authority and judgement". It has also been stated that some tree managers, "in trying to develop community support, urban foresters may be crossing the line into political activity" (Wellman and Tipple 1992). Such reservations could be overcome through successful partnerships.

Partnerships

Certainly some partnerships will bring about success, while others are less than effective. Wellman and Tipple (1992) suggest that urban forest managers seek out partnerships with citizen groups that exhibit the three following characteristics:

1) Interests which complement those of the urban forestry program;
2) A purpose linked to some overarching social value in the community;
3) The ability to contribute to the strategic advancement of the urban forestry program.

Wellman and Tipple (1992) go on to state that, "if the time and energy citizens devote to improving their urban forests is to be well-directed, efficient and productive enough to encourage further action, it must be carried out in partnership with urban forest management professionals".

Coordinating efforts often translates into coordinating volunteers. In 1986 Ball reported that few urban foresters have had training in volunteer management. This sentiment was echoed by Wellman and Tipple(1992), "unfortunately, there has been little in most professional education to prepare practicing public sector managers for working with citizens and community groups". Ball's 1986 article offered the following suggestion for volunteer management:

1) There must be a mutual trust and an open exchange of expectations. In Ball's case study, the volunteer group was formed around dissatisfaction with the city's service. Unfortunately, this likely is not an uncommon motivating factor.

2) Volunteers should be treated with the same consideration as a paid employee. This includes supervision and clear, ideally written job descriptions. He further lists motivating factors, responsibility, challenge and recognition (Ball 1986).

Properly trained volunteers provide a host of benefits for an urban forestry program. Nichnadowicz in Kuser (2002:127) offers five such benefits:

1) Volunteers who are committed to the mission of the program can provide new skills.
2) Volunteers can provide different perspectives and contacts.
3) Good volunteers are a kind and committed audience.
4) Enthused volunteers can be trained to assist in more complex tasks.
5) Volunteers can help expand a tree program.

Westphal and Childs (1994) note that in order to get the maximum benefit from volunteers, "it is important that urban foresters receive appropriate training and have the necessary time and commitment to work with volunteers".

The literature does contain discussion beyond the general push to get volunteers to serve as free labor. Kuhns et. al. (1995:186) comment that, "all too often, community involvement is viewed as simply enlisting volunteers to supply labor for planting..." Kuhns recognized the importance of involving residents who will be impacted from the beginning to ensure some modicum of citizen control over the process (1995:186). Additionally, he made the important point that any education effort should be viewed as a two-way interaction, as "urban natural resource professionals may have as much to learn and as great a need to change perspective as the community impacted by a project" (1995:187).

Foster's (2001) Journal of Forestry article, "Nonprofits in Forestry" is informative. "Unlike public agencies, which are there for the long haul, nonprofit organizations tend to gravitate toward projects with relatively limited time frames, the

result of their dependence on short-term philanthropic resources." Foster lists positive and negative aspects of nonprofit involvement. The beneficial aspects of nonprofits include, nonprofits can "avoid bureaucratic impediments and raise funds, recruit adherents, provide in-kind and other supplemental services, and effect public-private cooperation across agency, disciplinary, and even state lines." In addition, nonprofits can be risk-takers and innovators. On the cautionary side of partnerships, Foster (2001) offers five major pitfalls:

1) If nonprofits play too prominent a role, agencies can lose stature and visibility;
2) Agency autonomy and individualism may be threatened when power sharing occurs;
3) Shared decision-making is oftentimes more time-consuming, complex and costly;
4) When responsibilities and roles are blurred, public accountability could be reduced; and 5) "There is also the specter of reduced public appropriations if the task can be accomplished with non-governmental resources" (Foster 2001). Additionally, Foster notes that as a result of their perpetual search for members and funding, nonprofits are required to remain competitive and unique. He follows that this may lead to problems with territorial behavior and an unwillingness to share credit (Foster 2001). Furthermore, it is reasonable to assume that the need to raise funds would not be conducive to divulging the details of unsuccessful projects.

Shurtz (2001) addresses some of the issues that arise when municipal foresters and community foresters (nonprofit tree planters) work side-by-side. Table 1 summarizes the positive and negative aspects that he feels each group can bring to the interaction. The Shurtz list touches on many of the relationship aspects that will be explored by the following. It is encouraging that in both cases the positive list is longer than the

negative. Certainly, no organization or department will possess all of the characteristics, be it positive or negative, but the lists serve as a valuable source of discussion and self-examination for the two groups.

Table 1 *Positive and Negative Aspects of Nonprofits and City Forestry Programs (Shurtz 2001)*

Nonprofit Positives	**Nonprofit Negatives**
Can access grant & tree planting funds	Lack of in-house professionals
Add infrastructure value without directly impacting municipal funds	Don't always chose the 'right tree for the right place'
Offer educational programs	High visibility can detract from professionally run city programs
Have high visibility	
Can improve support base of municipal foresters	
Lack the limitations of government agencies	
City Forestry Positives	**City Forestry Negatives**
Professional, experienced staff	Can be bureaucratically entrenched
Grasp of long range goals and needs	Can be resistant to change and new ideas
Political mandate to function in a public safety/health role	Over worked, underpaid, understaffed
Interface with other municipal agencies	Constrained by 'red tape'
Know 'the system' well	

Conclusion & Hypotheses:

The management of this nation's 70 million acres of urban forest is clearly a large and important job. To accomplish this task the field of urban forestry and professional tree managers have come about. Concerned citizens, and the tree groups they lead and volunteer for, have also emerged to take their place in the field of urban forestry. It is the intersection of these two groups that drives this study. The literature lacks studies that focus on how tree-planting groups and city forestry interact. It is important to know how these two groups compare in their activities, views of the urban forest, usage and perception of volunteers, as well as how well they are communicating with each other. To

accomplish this, four null hypotheses were developed and tested through data analysis. The hypotheses are:

1) **H(0) There are no significant differences between city forestry and nonprofit tree-planting groups' perceptions of the urban forest.**

2) **H(0) There are no significant differences in the way city forestry and nonprofit tree-planting groups view the role and importance of volunteers in urban forestry.**

3) **H(0) City forestry will rate highly the quality of work performed by nonprofit tree-planting groups.**

4) **H(0) City forestry and nonprofit tree-planting groups have good levels of communication with each other**

These hypotheses are further discussed and tested in Chapter IV, Results and Discussion.

III. Methods

Study Area

The United States Forest Service Northeastern Area was selected as the region of focus. This area was selected because it is an established unit utilized by the federal government. A regional focus was necessary to make this study feasible in terms of cost. Twenty states fall within the Northeastern Area, with the addition of the District of Columbia. States in the study area include: Connecticut, Delaware, Illinois, Iowa, Indiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia, and Wisconsin. A map of the study area is included in the appendix.

Selection of Subjects

Efforts were made to identify and survey as many tree groups (as defined as a nonprofit organization dedicated, at least in part, to the planting of trees) in the study area as possible. Tree groups were found through a variety of sources. Nonprofit tree group contact information was gathered from: the National Tree Trust local tree planting organizations list, the National Alliance for Community Trees member list, the Citizen Forestry Support System's publication "How do Tree Groups Train Volunteers", Growing Greener Cities (Moll 1992), Internet searches, requests for information posted on the URBNRNET and Trees listserves, and through word of mouth. In addition, the State Urban Forestry Coordinators for each of the 20 states included in this study were sent an email describing the project along with a request to provide contact information

for any tree groups they were aware of. In total, contact information was gathered for 81 tree groups in 43 cities located in 18 states. All tree groups identified were mailed surveys and the corresponding cities under whose 'jurisdiction' they operate were mailed surveys.

Once tree groups had been selected, the contact information for the city department responsible for tree care in their home city was sought. The Society of Municipal Arborists (SMA) provided a membership contact list. Sixteen of the cities had a member with a title, address and telephone number. Beyond the SMA list, an Internet search for city contact information was conducted. City home pages were located and searched for the department and primary contact person responsible for tree care. This method provided nearly all of the needed contact information. For the remaining cities, the city hall or chamber of commerce was telephoned for the appropriate contact.

Instrumentation

Surveys were developed over the course of a number of years. Questions were inspired by a review of urban forestry literature, related questionnaires, experiences of the author and committee feedback. Questionnaires that proved particularly helpful were those used by Kielbaso (1988), Clark (1996), and Schroeder et al. (1998). A breakdown of how survey questions correspond to research objectives is below. Surveys mailed to the nonprofits and cities were similar but catered to gather information specific to each entity. For example, cities were asked to provide departmental information and tree groups were asked questions specific to their efforts as a nonprofit. Please note that complete copies of both surveys can be found in the appendix. The survey questions were designed to capture information that falls under one of the following four

categories: department/organization information, perceptions of the urban forest, communication and relationship, and the role and importance of volunteers. These four categories correspond with the research objectives. Please see Table 2 for a breakdown of questions and the objective for which they relate.

Table 2 *Survey Question Number and Corresponding Research Objective (2002)*

	City Survey	**Nonprofit Survey**
Department/Organization Information	1-19, 28 (open-ended)	1-17, 23 (open-ended)
Perceptions of the Urban Forest	26(a)- 26(f)	22(a)- 22(f)
Communication and Relationship	20, 21(a)-21(f), 22(a)-22(e), 23(a)- 23(d), 27/29-31 (open-ended)	18(a)-18(f), 19(a)-19(e), 23/25-27 (open-ended)
Role and Importance of Volunteers	24(a)- 24(g), 25	20(a)-20(f), 21

Prior to being sent out to cities and nonprofits, a pilot test was performed. Questionnaires were sent to reviewers representing city foresters, nonprofit tree planting groups and experts in the field. Survey reviewers were:

Paul Bairley, Urban Forester, City of Ann Arbor, Michigan
Friends of the Urban Forest, a nonprofit tree-planting organization based in San Francisco
Kerry Boris Gray, MS Forestry-Urban Studies, Arbor Day Coordinator, State of Michigan
Chris Pargoff, City Forester, City of Livonia, Michigan
Phillip Rodbell, Urban Forester, USDA Forest Service
Steve Shurtz, City Forester, Baton Rouge, Louisiana, former president of the Societyof Municipal Arborists
Trees Atlanta, a nonprofit tree-planting organization

Reviewers responded favorably to the survey, with two suggestions for changes. First, a number of reviewers commented that the survey took 30 minutes to complete, rather than the twenty minutes originally thought. This was adjusted was made on the cover letter sent to cities and nonprofits. The second suggestion was to add clarifying information

concerning tree boards and nonprofit tree groups. Because this suggestion had not previously been offered by the committee and was not mentioned by other reviewers, it was decided to leave the survey as it was.

Survey Administration

A total of 124 surveys were mailed, with 81 (65%) to nonprofit organizations and 43 (35%) to cities. Surveys were mailed from Detroit, Michigan in the spring of 2002 and were addressed by hand and mailed in brown craft 9x12 envelopes. The surveys were copied, two-sided on a natural granite shade of 11x17 paper. Complete copies of both city and nonprofit surveys are located in the appendix. Respondents were asked to fold and seal the survey with an attached sticker. Surveys were stamped and self-addressed.

Survey Returns

The return rate for the initial mailing was 20% for nonprofits and 41% for cities. Follow up telephone calls were made in the summer of 2002. Contacts were reminded that they had been sent a survey regarding partnerships in urban forestry. They were then asked whether they had returned the survey, and if not, were asked about their willingness to fill out the survey should another be mailed to them. Addresses were verified and a second call back mailing was sent soon thereafter. From this second mailing, an additional 14 surveys were returned, resulting in a total return rate of 40%. A total of 49 of surveys were returned. Of the 81surveys mailed to nonprofits, six were returned as 'undeliverable', two were inadvertently mailed to groups not fitting the project criteria, or were unreachable due to faulty contact information during as

discovered when telephoning first-round non-respondents. With these 18 surveys subtracted from the total number of nonprofit surveys, the number used to calculate the return rate becomes 63.

The 23 surveys from nonprofit organizations then represent a return rate of 37%. The 26 returned by cities represent a return rate of 60%. Sixteen states and the District of Columbia were represented. Elmendorf and Luloff report that response rates for mail surveys are commonly below 50% (2001). By this standard, nonprofit returns were disappointing, while city returns were relatively high. The latest survey methodology developed by Don Dillman is entitled the Tailored Design Method (TDM). The TDM process produces average mailed survey return rates of 74% (Dillman 1999:26). By this standard, return rates for both cities and nonprofits are low. Dillman's method and how it relates to this study will be discussed in the limitations section in Chapter 5.

Cities returned their surveys at a higher rate than the nonprofits. The lower return rate for nonprofits was to some degree expected due to the relative instability and mobility of nonprofits as compared to a city department. The six questionnaires returned as undeliverable and the additional 10 contact numbers no longer in service provide evidence of this. It is possible that some of the nonprofits on the mailing list may have been a one-time recipient of a National Tree Trust tree-planting grant, rather than a full time tree planting organization. These grant recipients are listed under the National Tree Trust's local tree planting organization list, which was a source used to compile the 81 groups identified. In attempt to avoid error when selecting groups, the National Tree Trust's group descriptions were read to determine whether the group 'fit' under the nonprofit tree groups category. Those such as schools that appeared on the list, but were

clearly not a tree group (as defined for this study) were not selected. Selection error was identified when follow up telephone calls led to the discovery that one group focused exclusively on urban gardening and another was actually a tree nursery.

Information on Non Respondents

As mentioned, of the 81 surveys sent to nonprofits, 18 were invalidated, and 40 were not returned. Of the 46 surveys mailed to cities, 15 were not returned. In an attempt to identify any characteristics non-respondents may have had in common, both the method of their selection and any available information obtained in their selection was revisited.

The source of contact information was explored first. Of the 16 cities that were contacted using information provided by the Society of Municipal Arborists, nine (56%) returned surveys. This figure is lower than the groups return rate of 63%. This lower return rate came as a surprise as surveys with Society of Municipal Arborist contact information had been confirmed with an up-to-date address and contact name information. Although nonprofit contact information came from a wide array of sources difficult to recheck, it was clear which addresses were obtained from the National Tree Trust local tree planting organizations list. Of the 81 groups, 23 were identified from this source. The rate of survey return for this segment of the group was 30% (7/23). This figure is consistent with, but slightly higher than, the return rate of 28% for the entire nonprofit universe. See Table 3 for a breakdown of survey returns as related to city population. City populations have been divided into four sizes: small cities <35,000, small to medium 35,001-50,000, medium to large 50,001-100,000, and large cities over

500,000 residents. Medium/large and large cities returned surveys at higher rates. This difference in return rates is discussed in Chapter 5.

Table 3 *Number of Surveys Returned/Not Returned (all mailings) from Each City Size Category (2002)**

	Small	Small/Medium	Medium/Large	Large	Total
City Returned	7	8	8	3	26
City Not Returned	10	2	2	3	17
Nonprofit Returned	4	4	6	9	23
Nonprofit Not Returned	13	10	6	11	40
Total	34	24	21	25	106

** Totals do not include the 18 undeliverable, unreachable or improperly selected nonprofits*

Geography of returns has also been considered. See Table 4 for an analysis of location as related to number of surveys returned or not returned. Please note that 'North Central' includes Minnesota, Iowa, Missouri, Wisconsin and Illinois. The area designated 'Midwest' includes Michigan, Indiana, Ohio, and West Virginia. The 'Mideast' section includes Pennsylvania, New Jersey, Maryland and the District of Columbia. Lastly, the 'Northeast' area includes Maine, Rhode Island, Delaware, Vermont, New Hampshire, New York, Connecticut, and Massachusetts,

Table 4 *Geographic Location (within the USFS Northeast Area) of Responding and Non Responding Cities & Nonprofits (2002)**

	North Central	Midwest	Mideast	Northeast	Total
City Returned	6	8	6	6	26
City Not Returned	2	5	7	3	17
Nonprofit Returned	5	4	6	8	23
Nonprofit Not Returned	9	10	10	11	40
Total	22	27	29	28	106

** Totals do not include the 18 undeliverable, unreachable or improperly selected nonprofits*

Data Analysis

Data collected from questionnaires was coded and analyzed using SPSS 11.0. This program was selected due to its availability and its appropriateness for such analysis.

The most commonly used means of analysis in this study were the examination of frequencies, cross tabulations, chi-square tests, t-tests, correlations and various descriptive statistics. The results of correlation analysis were consistent with chi-square tests unless otherwise noted, with chi-square being the primary tool used for data analysis.

IV. Results and Discussion

City Department and Program Background Information

Of the 26 cities that responded, 46% possesses a full time city forester or arborist. These city foresters and arborists were housed in the Department of Public Works (42.3%), Parks and Recreation Department (38.5%), Forestry Department (11.5%) or worked out of other departments (7.6%). Of responding cities, 46% reported that the individual primarily responsible for tree care decisions was an International Society of Arboriculture Certified Arborist and 62% had attained a minimum of a four year degree in forestry or a horticultural related science. Cities that employed a part-time or no urban forester often had an ISA certified arborist on staff making tree care decisions. This puts the ISA in a good position to positively influence the quality of tree care, at least in the northeastern Untied States.

Cities often contract out portions of their urban forestry duties. This survey found that cities were most likely to contract out removals and least likely to contract for routine park maintenance. Table 5 details the percentage of cities that contract out for specific aspects of tree care.

Table 5 *Percentages of Cities that Contract Various Forestry Activities (2002)*

	%
Removals	61.5
Pruning	50.0
Emergency work	46.2
Planting	46.2
Routine street maintenance	42.3
Routine park maintenance	34.6

Cities were likely (77%) to report positively on whether they had street tree ordinances. This high percentage of cities that reported having ordinances relating to trees can be interpreted as a strong base of concern for urban trees. Tree ordinances were most likely to address tree removals as well as provide for tree protection during construction. A full listing of responses is listed in Table 6.

Table 6 *Clauses Included in Tree Ordinances in Responding Cities (2002)*

Prohibition of removals	54%
Prohibition of topping	46%
Guidelines for developers	46%
Tree protection during construction	42%
Prohibited species	39%
Insect and disease control	27%
Wood waste	8%

A surprisingly few of the city's tree ordinances addressed woodwaste and insect/disease control. These two areas should not be overlooked, especially in light of recent problems in New York and Chicago with the Asian Long-Horn Beetle (*Anoplophora glabripennis*) and the emerging crisis in Southeast Michigan with the Emerald Ash Borer (*Agrilus planipennis*). It is crucial to have the legal framework in place to give tree care managers the means and authority to spring into action when such crises hit.

Cities reported having an inventory of street trees 62% of the time (16 cities), although only half of these 16 cities (8 cities) were able to provide the year it was last updated. Thirty-four percent (34%) of respondents' inventories had been updated in the last five years. This leaves many cities ill prepared to deal with routine maintenance as well as emergency situations. In order to properly manage a resource, one must know what it is.

Estimates of the number of trees along city streets ranged from 100 to 250,000. Cities were asked to list the number of trees both planted and removed during the previous five years. These numbers were averaged and then combined by year to reveal rates of tree gain or deficit. Figures are listed in Table 7.

Table 7 *Tree Gain/Loss Over Five Years as Reported by City Forestry Respondents (2002)**

Year	**2001**	**2000**	**1999**	**1998**	**1997**	**5 Year Totals**
Mean Number of Trees Planted	699 (21)	653 (21)	691 (21)	564 (19)	690 (18)	3,297
Mean Number of Trees Removed	797(20)	623 (20)	613 (18)	777 (15)	774 (13)	3,584
Mean Number of Trees Gained/Lost	-98	+30	+78	-213	-84	-287

**Number of cities that responded given in parentheses*

Cities were asked to characterize their departments' budget as increasing, decreasing or remaining stable. The largest percentage of respondents viewed their budgets as stable (34%). Thirty-one (31%) percent felt their budgets were decreasing, while 23% actually saw their budgets increasing and 12% did not respond. Figure 1 illustrates the reported budget statuses. Statements describing urban forestry budgets as decreasing are often simply stated, assumed to be common knowledge that need not be cited. Cities that responded, however, did not concur that their budgets were endangered. With fifty-seven percent of respondents reporting their budgets as either stable or increasing, it would seem the outlook might not be as bleak as commonly.

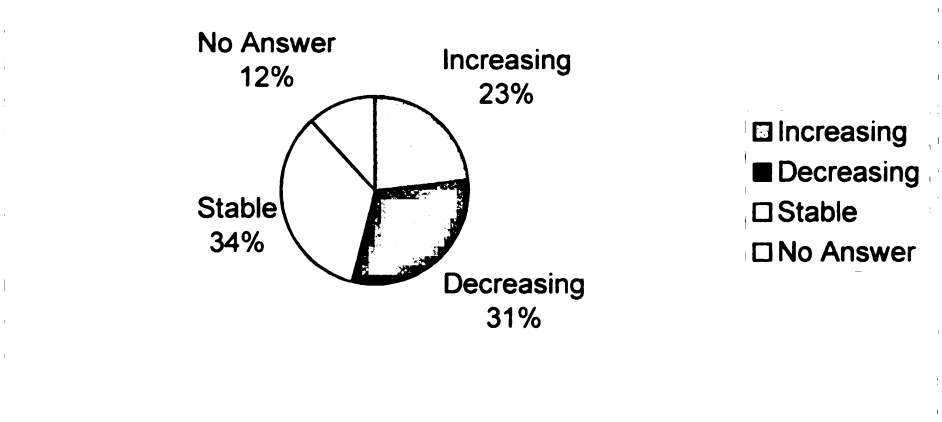

Figure 1 *Status of City Forestry Budgets as Provided by City Forestry Respondents (2002)*

Also explored was budget allocation in comparison to how time was spent. Maintenance activities were allocated the greatest amount of time and money. The percentage of budget and time spent on maintenance were equal at 33%. Removals, planting and continuing education demanded a greater percentage of time than money. Administration activities required a slightly greater proportion of time than budget. See Figure 2 for comparison. It is useful to note that 12% of the time spent was in the 'other' category, while the corresponding budget percent was only 3%. Whatever these activities are, tree managers should attempt to minimize the amount of time spent or support the activities in the budget.

This study's respondents differed in the how money was budgeted compared to Moll's recommendation of an ideal budget breakdown of 20% administration, 20% planting, 20% removals and 40% maintenance (1988:35). Respondents spent nearly 10% more than Moll's ideal on removals and nearly 10% less on maintenance. These figures reflect programs that are less proactive and more reactive.

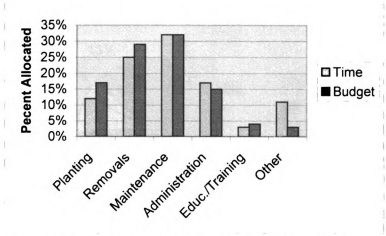

Figure 2 *Comparison of Time and Budget Allocation Spent on Urban Forestry Activities (2002)*

Several of the responding cities reported that they did not have a tree-planting group in their community (35%), or were unsure (11%). In other words, a mere 54% of the respondents were aware of a tree-planting group in their community. This low percentage is puzzling considering the fact that cities in the sample were selected based on the presence of a nonprofit tree-planting group in their community.

Nonprofit Background Information

The nonprofits that responded to this questionnaire were generally older organizations. As can be seen in Figure 3, thirty-five percent (35%) were more than 21 years old, 39% were 11 - 20 years old, 9% were 7-10 years old, and just 4% were under three years old.

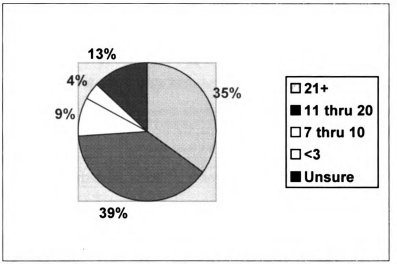

Figure 3 *Reported Ages of Nonprofits that Responded to the Survey (2002)*

The age of the organization is not a significant factor in the relationship between cities and nonprofits. This is evidenced in part by the paired cities that were unaware of the tree planting organizations that were between 11 and 20 years old. Most of the nonprofit groups reported having a 501(c)3 tax exempt status (78%), 18% reported they did not and 4% were unsure. Seventy-eight percent (78%) of the nonprofits employ full-time staff. Staff sizes ranged from 1 to 74, with a mean staff size of 17. The vast majority (91%) of responding nonprofits reported having a mission statement.

When asked about the number of volunteers they worked with in 2000, nonprofits gave numbers ranging from 0 to 30,000. The relationship between the use of volunteers and various activities was explored. Respondents were asked to supply the number of volunteers they worked with in 2000. These numbers were paired with key variables and *t*-tests were run to look for significant relationships. To accomplish this with accuracy, the one outlier case that reported working with 30,000 volunteers in 2000 was excluded. The number of volunteers that the organizations worked with did not have a significant

relationship with any of the variables tested. A summary of test results can be found in Table 8.

Table 8 *Significance of the Relationship between Select Variables and the Number of Volunteers Used in 2000 (2002)*

Variable	*N*	**Significance**
Number of trees planted	16	.052
Level of concern for the urban forest in the community	16	.093
Estimated survival rate	8	.277
Age of the organization	19	.359
How often the organization initiates tree planting	17	.413

The relationship that most closely approached significance (.052) was that between the number of tree planted and the number of volunteers used. Although this table does not display numbers of statistical importance it has been included to highlight the fact that the relationships are not significant. Because volunteers are so often viewed as a labor force it was suspected that the selected variable would share a direct relationship with the number of volunteers used. This, as can be seen in Table 8, was not the case.

The total number of trees planted by organizations varied widely. Twenty-two percent (22%) of respondents have planted between one and 1000 trees; 22% have planted between 1001 and 5000; 9% have planted between 10,001 and 20,000; 17% have planted between 20001 and 40,000 and 22% have planted over 40,000 trees. No groups reported planting in the 5,001-10,000 range and 8% did not answer.

Nonprofits were asked whether they evaluate the trees planted by their organization for health and survival after planting. Twenty groups (87%) responded that they did indeed monitor their trees. When asked if survival rates were tracked, 14 (61%) answered 'yes'. However, only 12 (52%) were able to estimate survival rate. Estimated survival rates varied from a low of 65% to a high of 95%, on the whole high, with a mean

of 82%. Groups were also asked about the interval(s) at which they evaluate their plantings. Twenty-six percent (26%) of respondents reported a six-month check after planting, 13% checked at one year, 13% at two years and 31% reported checking at an 'other' interval. Seventeen (17%) percent did not respond.

Nonprofits were asked to provide a breakdown of their funding sources for the year 2000. The means were calculated from each funding category and combined for a total. Those means combined resulted in a total of 90.5. The mean for each funding category was then divided by 90.5 to yield the percentage of the funding total. The largest sources of funding for tree-planting groups were municipalities and foundations. The smallest proportion of funding was received from individuals or private donors. Figure 4 exhibits the breakdown of respondents' funding sources for the year 2000.

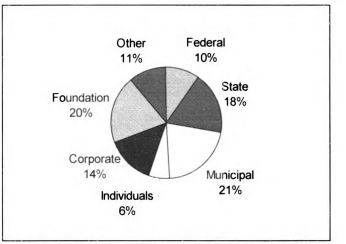

Figure 4 *Funding Sources of Responding Nonprofits in 2000 (2002)*

Maximum funding levels for each of the categories demonstrated diversity. The percentage of the budget attributable to individual donations was reported at 15%. Both municipal and 'other' sources were reported at maximum levels of 100% of the budget source. The corporate funding maximum was 90%, with the foundation max at 83%.

The reported high point of state funding was 85%. Federal funding did not account for more than 60% of funding for any of the respondents.

Nonprofits were asked to provide all of the locations that they plant trees. Parks were the most common planting locale, with private property being the least often planted. Table 9 below demonstrates where the nonprofits focus their planting efforts.

Table 9 *Locations Responding Nonprofits Plant Trees (2002)*

Location	**Percent**
Parks	74%
Streetside	70%
School grounds	70%
Vacant lots	40%
Other	35%
Churches	30%
Brownfields	26%
Private Property	13%
Yards	9%

Trees were planted by nonprofits in a variety of locations. The most common planting locations were parks and streetsides, areas that fall under the realm of city responsibility. It should be highlighted that the tree groups focus a large portion of their efforts on public right-of-way locations. Because these trees ultimately fall under the care of the city forestry program it is all the more important that these groups are in communication. If tree groups are planting trees in the public right-of-way unbeknownst to the department responsible for their care, it signals not only a lack of communication, but also a lack of oversight.

To determine in what activities the responding nonprofits engaged, they were asked to indicate how often the organization, or members of their organization initiated, or led, the following: tree-planting, youth education, neighborhood beautification, tree watering, tree maintenance (other than watering), tree sales, seedling give-aways,

community workshops, contact with local tree board or commission, contact with State or Federal agencies, and Arbor Day celebrations. Respondents indicated how often, if ever, certain activities were initiated. The responses of 'monthly', 'at least twice a year', and 'at least once a year' were combined to provide the percentage that initiate the activity on a fairly regular basis. Table 10 displays the results.

Table 10 *Activities Led by Nonprofit Survey Respondents (2002)*

Activity Initiated	Percent
Tree Planting	83%
Arbor Day Celebration	70%
Seedling Give-Aways	65%
Community Workshops	57%
Tree Maintenance (other than watering)	51%
Neighborhood Beautification	39%
Tree Sales	39%
Tree Watering	30%
Youth Education	26%
Contact with State or Federal Agencies	26%
Contact with Local Tree Board or Commission	17%

Tree planting was the activity most likely to be initiated by the nonprofit groups. Arbor Day Celebrations were also a very common activity, as were seedling give-aways. The actions initiated by the fewest groups were communication related.

Comparing City Forestry and Nonprofit Responses

This section reports and discusses the responses to question that were asked to city and nonprofit respondents for the purpose of comparison.

Both nonprofits and cities were asked how many trees they were responsible for planting annually over the last five years. It should be noted that when arriving at the mean number of trees planted annually by nonprofits, one case was excluded. This was necessary as this organization planted over a quarter of a million trees yearly, an

inordinately large number. Nonprofits consistently planted more trees. See Figure 5. Over the five-year period addressed, the mean number of trees planted by these nonprofits grew steadily, more than quadrupling between 1997 and 2001. Over this same period, the number of trees planted by cites varied only slightly from year-to-year.

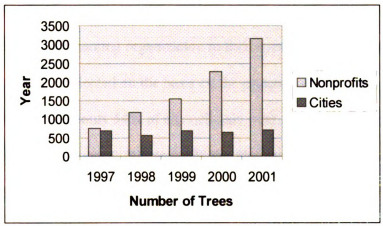

Figure 5 *Mean Number of Trees Planted by Responding Cities and Nonprofits 1997-2001(2002)*

These numbers may look impressive; however, the size of the stock planted must be taken into consideration. Respondents were asked to specify the size of stock they plant the majority of the time. A comparison of planting stock size has been represented below in Figure 6.

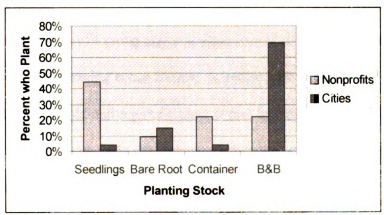

Figure 6 *Size of Stock Planted by Responding Nonprofits and Cites (2002)*

The nonprofits were far more likely to be planting seedlings, while the majority of cities planted balled-and-burlapped trees. Bare root was the primary planting stock for more cities than nonprofits, while more nonprofits planted containerized stock in a greater proportion than cities.

A strong area of concern was the relatively small percentage of cities that were aware of a nonprofit tree-planting organization in their community. As stated in the introduction, cities were selected on the basis on the presence of a nonprofit tree-planting group. In the entire group, only 54% of city officials were aware of a nonprofit sharing their urban forestry commitment. It is possible that this can be explained in part by the number (18) of nonprofit surveys that were removed from the total due to the inability to reach the target organization or improper selection. Of the 43 cities that were identified as having nonprofit organizations, responses were received from both the city and the nonprofit in nine instances. It was hoped that matched pairs of city-nonprofit surveys would be returned at a higher rate.

A separate set of analyses was performed on the 'sets' that were returned. Of the nine pairings two of the cities responded that there was not a nonprofit tree-planting group and one city was unsure. In other words, fully one third of the matched pair cities were unaware of the nonprofit group active in their community. All three of the nonprofits that were performing urban forestry activities unbeknownst to the city were between 11 and 20 years old and regularly plant trees. Interestingly, when asked to describe the relationship with their city's tree manager two of the 'unknown' tree groups responded that the relationship was good. These same two groups also felt that

communication with the city's tree manager was good. Clearly there is a disconnection between the two groups, literally and perceptually.

Perceptions of the Urban Forest

As previously stated, it is hypothesized that city foresters and nonprofit tree groups perceptions of the urban forest will differ significantly. The following results and discussion focus on the two groups' perceptions of the urban forest. The hypothesis is stated in null form and tested lastly by reviewing the responses to a block of six statements labeled 'Your Urban Forest' in the surveys. This set of questions appeared in both the city and nonprofit surveys.

Results and Discussion:

Respondents were given a series of statements about their community's forest and asked to indicate the degree to which they agree. Nonprofits were more likely to agree that their community's forest was in decline 70%, compared to the 40% of city respondents who agreed that the urban forest was in decline. See Table 11 for a summary of results to the entire block of questions concerned with perceptions of the urban forest.

Table 11 *Summary of City and Nonprofits Responses to Perceptions of the Urban Forest Survey Section (2002)*

		City / Nonprofit	
	Agree	**Neutral**	**Disagree**
My city's urban forest is in decline	40% / 70%	16% / 20%	44% / 10%
Planting is the most important to reforest	52% / 63%	28% / 32%	20% / 5%
More trees are needed in my city	83% / 100%	13% / ---	4% / ---
Trees in my city are pruned regularly	32% / 37%	28% / 16%	40% / 47%
Trees in my city are properly maintained	42% / 29%	21% / 14%	37% / 57%
Strong concern for the urban forest in my town	76% / 33%	12% / 29%	12% / 38%

Nonprofits were, in fact, significantly more likely to agree (p=0.04), as can be seen in Table 13 located on page 45. This response is logical because if these organizations did not see their city's urban forest in some sort of jeopardy, the motivation to act would certainly be lessened. Additionally, city foresters whose job it is to ensure their community's forest is not in decline, would seemingly be less likely to report that it is in decline. Furthermore, a city forester with on the job and most often, formal, education in the field, may be better equipped to gauge whether the urban forest is in decline.

Nonprofits were also more likely to agree with the statement, 'planting is the most important step in reforesting a city'. Sixty-three percent (63%) of nonprofits agreed that planting was the top priority in reforesting a city, while 52% of city forestry respondents agreed.

When asked to react to the statement, 'more trees are needed in my city', 83% of cities agreed, while 100% of nonprofits also agreed that more trees were needed. This relationship was below the significance level (p=0.13); however, the relationship

approaches significance. Nonprofits were more likely to feel that their community was in need of more trees.

When responding to the statement 'trees in my city are pruned on a regular cycle', city respondents expressed a greater degree of neutrality than nonprofits. Forty-seven percent (47%) of nonprofits did not agree that trees were pruned regularly, compared with 40% of city respondents. Thirty-two percent (32%) of cities agreed that their trees were pruned regularly, while 37% of nonprofits agreed.

A greater percentage of cities agreed that the trees in their city were properly maintained. Just 29% of nonprofits agreed that the trees in their city were properly maintained, compared to 42% of cities. Table 8 summarizes the responses for the entire section of questions.

Opinions about the concern felt for the urban forest in the community differed considerably. As can been seen in Figure 7, cities were far more likely to feel

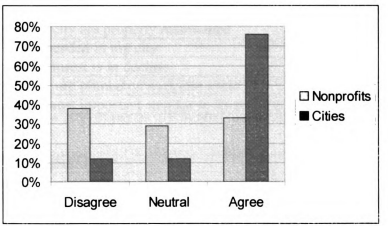

Figure 7 *City and Nonprofit Response to the Statement "A strong concern for the urban forest exists in my community" (2002)*

that the community shared a strong concern for the urban forest (76%). On the other hand, nonprofits agreed that a strong concern existed at a rate of 33%. Nonprofits were far more likely than city forestry departments to perceive a lack of concern for the urban

forest. Differences between the two groups also arose when reacting to the statement, "a strong concern exists for the urban forest in my community". Cities were significantly more likely to feel that there was a strong concern for the urban forest (p=0.01). Much like the previous question regarding perception of urban forest decline, such differences may be explained by the nature of the groups. Nonprofits who devote themselves to planting trees, likely feel the need to raise the level of concern for the urban forest. One might suspect that the manager of a city's trees would feel that a stronger concern exists because if there was not a high level of concern, their position might not exist. This did not ring true, however, as there was no statistical relationship between employing a full time city forester and the perception of concern for the urban forest in the community (p=0.23). See Table 12 for a summary of relationships.

Table 12 *Significance of Employment of a Fulltime City Forester or Arborist as Related to Selected Variables(2002)*

Does Your City Employ a Fulltime City Forester or Arborist	**Pearson Chi-Square**
A strong concern for the urban forest exists in my community	.229
The trees in my city are properly maintained	.971
More trees are needed in my city	.356
My city's urban forest is in decline	.346
Trees in my city are pruned on a regular cycle	.553
Planting is the most important step for re-foresting a city	.155

Testing Hypothesis One:

H(0) There are no significant differences between city forestry and nonprofit tree-planting groups' perceptions of the urban forest.

H(a) Not as H(0)

As previously mentioned, this first hypothesis was tested by analyzing the responses to the block of statements labeled 'Your Urban Forest' in the surveys.

Responses to statement one of six, 'A strong concern for the urban forest exists in my community', did in fact demonstrate significant differences between the two groups. See Table 12 for a list of chi-square significance levels. City forestry respondents were significantly more likely to perceive a strong concern for the urban forest in their community. Reactions to statement two of six, 'The trees in my city are properly maintained', were varied, but not to a statistically significant level. In general, nonprofits found the maintenance of their city's trees to be less satisfactory than city forestry respondents. Statement three of six, 'More trees are needed in my city', produced results very close to statistical significance. Nonprofits agreed with this statement 100% of the time, while cities agreed 83%. These results tend toward significance.

Reactions to the fourth statement of the set, 'My city's urban forest is in decline', were significantly different between the two groups. Nonprofits were likely to feel that their urban forest was in a state of decline. Cities viewed the urban forest in a significantly more positive light than nonprofits. Statement five, 'Trees in my city are pruned on a regular cycle', did not produce reactions that differed notably, both groups tended to disagree with this statement. The final statement, 'Planting is the most important step in reforesting a city', also produced similar reactions from both sets of respondents. A summary of reactions to this set of questions is located in Table 13.

Table 13 *Perceptions of the Urban Forest Survey Section*
Summary of Significance: Nonprofit Tree Groups x City Forestry Programs (2002)

	Pearson Chi-Square
Strong concern for the urban forest in my town	.014*
Trees in my city are properly maintained	.420
More trees are needed in my city	.134
My city's urban forest is in decline	.040*
Trees in my city are pruned regularly	.632
Planting is the most important to reforest	.367

* *Significant to the (.05) confidence level*

Conclusion: Although, there were differing reactions to the statements gauging perceptions of the urban forest, statistically significant relationships were found for only two of the six statements. H(0) is neither rejected nor retained. In other words, tree planting groups and cities generally share similar perceptions of the urban forest.

Perceptions of the Roles and Importance of Volunteers in Urban Forestry

The next research area to be addressed is that which is concerned with volunteers in urban forestry. It is hypothesized that city foresters and nonprofit tree groups perceive the role and importance of volunteers significantly differently. The following results and discussion focus first on the two groups' use of volunteers. Next, perceptions of volunteers are explored. Finally, the null hypothesis is stated and tested by reviewing the responses to a block of statements labeled located in the 'Working Together' section of the surveys. This set of questions appeared in both the city and nonprofit surveys.

Results and Discussion:

Respondents from both nonprofits and city forestry were likely to employ volunteer labor for planting activities. Table 14 displays the percentages of respondents that reported using volunteers for a variety of tree-related activities.

Table 14 *Percentage of City and Nonprofit Respondents that Reported Using Volunteer Labor to Accomplish Urban Forestry Tasks (2002)*

Activities	**City**	**Nonprofit**
Planting	58%	74%
Watering	46%	65%
Pruning	19%	48%
Inventory	15%	48%
Species Selection	23%	21%
Other Activities	27%	9%

Roughly half of the nonprofit respondents reported using volunteer labor to assist both with pruning and inventories. Cities reported using volunteers for these activities at lower rates, presumably because they require more skill and/or training. Both groups employed volunteers in the selection of species at roughly the same rate. Nonprofits were reported using volunteers for other, possibly non-tree related, activities at a rate much higher than cities. Inventories in particular produced differing figures. While 48% of the responding nonprofits indicated that they use volunteer labor to perform inventories, only 15% of cities reported the same. Did these nonprofits perform their own inventories? Did the cities under-report the assistance they had received? These discrepancies are consistent with the results drawn from the questions regarding the frequency of assistance offered as compared to assistance received discussed in the next section.

It is apparent that all parties felt that volunteers provide a valuable service. The next section, 'Working with Volunteers', asked respondents to register their level of agreement with a set of statements relating to volunteers. When asked to react to the statement, 'volunteers are important in urban forestry', 92% of city respondents and 95% of nonprofits agreed. The remaining respondents were neutral, with no respondents from

either group disagreeing that volunteers are important. A summary of all responses to this question set can be viewed in Table 15.

Table 15 *Summary of City and Nonprofit Responses to Volunteer Survey Section (2002)*

		City / Nonprofit	
	Agree	**Neutral**	**Disagree**
Volunteers are important in urban forestry	92% / 95%	8% / 5%	--- / ---
Volunteers can improve my forestry program	83% / 81%	17% / 19%	--- / ---
Volunteer plantings are well-maintained	50% / 55%	23% / 27%	27% / 18%
Volunteers are a helpful labor force	78% / 100%	13% / ---	9% / ---
Volunteer plantings are well-executed	61% / 86%	26% / 14%	13% / ---

Although some city respondents disagreed (9%), 100% of the nonprofits agreed that 'volunteers are a helpful labor force'. Thirteen percent (13%) of the cities were neutral, but 78% did agree that volunteers provide a valuable labor force. Both groups tended to agree that volunteers improve a forestry program, with 81% of nonprofits and 83% of cities agreeing.

Nonprofit organizations agreed with the statement, 'volunteer plantings are well-executed' at a rate of 86%. City forestry, however, agreed with this statement in only 51% of cases. In fact, 13% of city respondents disagreed with this statement. The greatest levels of disagreement were registered toward the statement, 'volunteer plantings are well maintained'. Please see Figure 8. In this case not only the cities, but also the nonprofits agreed less readily. Figure 8 shows both lower levels of agreement and higher percentage of both groups who felt either neutral or disagreement with the notion that volunteer plantings are well maintained.

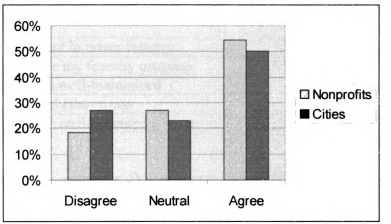

Figure 8 *Reactions of Cities and Nonprofits to the Statement "Volunteer Plantings are Well-Maintained" (2002)*

Testing Hypothesis Two:

H(0) There are no significant differences in the way city forestry and nonprofit tree-planting groups view the role and importance of volunteers in urban forestry.

H(a) Not as H(0)

Hypothesis two was tested by analyzing the responses the set of questions which fell under the 'Working Together' section of the surveys. Question one asked respondents to react to the statement, 'Volunteers are important in urban forestry'. Both groups agreed overwhelmingly, producing no statistically significant relationship. Significance levels are listed in Table 16. The next statement, 'Volunteers can improve my forestry program', also produced no evidence of a difference, with both respondent groups agreeing in nearly all cases. When asked to respond to the statement, 'Volunteer plantings are well maintained', responses once again were very similar from both groups. Respondents from both groups showed the greatest variation of opinion when responding to this statement; however, no statistically significant difference existed.

Table 16 *Volunteers in Urban Forestry*
Summary of Chi-Square Results: Nonprofit Tree Groups x City Forestry Programs(2002)

	Pearson Chi-Square
Volunteers are important in urban forestry	.632
Volunteers can improve my forestry program	.835
Volunteer plantings are well-maintained	.766
Volunteers are a helpful labor force	.061
Volunteer plantings are well-executed	.219

Reactions to the statement, 'Volunteers are a helpful labor force' produced reactions that tended toward statistical significance at the (.05) level of confidence. The source of the divergence was the number of city forestry respondents who either did not agree or gave a neutral reaction to this statement. All nonprofits agreed that volunteers were a helpful labor force. When asked to react to the statement, 'Volunteer plantings are well executed', the responses of the two groups again were quite similar, similar enough to produce no significant relationship.

Conclusion: When responses to statements regarding volunteers in urban forestry, there were no statistically significant differences between city forestry and nonprofit responses. The null hypothesis, H(0), has been affirmed. Both cities and nonprofits place a high value on the role of volunteers in urban forestry. Additionally the work of volunteers is viewed to be important and of high quality.

Communication and Relationship between Nonprofit Tree Groups and City Forestry Programs

The last research area to be addressed focuses on the communication and relationship between city forestry programs and tree groups. In this section two

hypotheses were tested. The first, stated in null form, is that city forestry programs will rate highly the quality of work performed by nonprofit tree-planting groups. To test this hypothesis, city respondents were asked to give their opinions regarding the quality of work performed by nonprofit tree planters. This set of questions appeared only in the city and survey.

The second hypothesis tested, stated in null form, asserts that city forestry and nonprofit tree-planting groups have good levels of communication with each other. To test this hypothesis, the reactions to six statements were analyzed. Five of the statements made up a block of questions found in the 'Working together' section. Respondents were asked to rate the quality of five measures of communication.

The results of the two question sets mentioned above are presented and discussed. Next the hypotheses are stated and the appropriate responses reviewed to reach conclusions. Finally, the responses relevant the communication and relationship between the two groups are discussed.

Results and Discussion: Communication and Interaction

To help gauge how the two groups interact and communicate, five types of assistance were listed with check boxes for frequency given or received. Nonprofits were asked how often they provided assistance, while city forestry respondents were asked how often they received assistance from a nonprofit tree-planting organization. Respondents could choose, 'monthly', 'at least twice a year', 'at least once a year', 'rarely', never', or 'not applicable'. The responses 'monthly', 'at least twice a year' and 'at least once a year' have been grouped to provide the percentage that either gave or received assistance on a moderately regular basis. Figure 9 illustrates the percentage of

respondents who indicated they gave assistance compared with the percentage that received assistance. The category in Figure 9 labeled 'support' represents written and vocal support, such as for budget hearings.

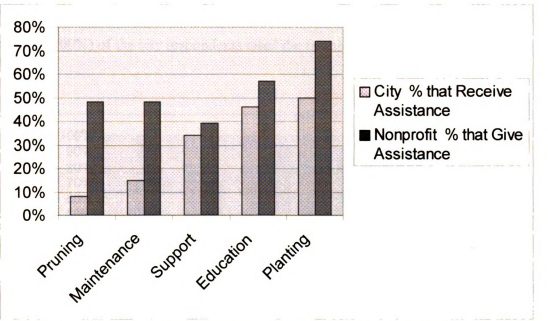

Figure 9 *Percentages of Cities and Nonprofits that Reported Giving and Receiving Urban Forestry-Related Assistance (2002)*

The education category refers specifically to education provided to residents. As can be seen in Figure 9, cities consistently reported receiving less assistance than nonprofits reported giving. The largest discrepancies were in the pruning and maintenance categories. The fact that nonprofits are providing assistance that the city is unaware of is not consistent with how positively the two groups portray their communications in the next section.

Results and Discussion: Cooperation and Communication

The final set of questions for cities and nonprofits sought to gather and compare information regarding how they viewed their interactions with each other. Respondents were asked to indicate their opinion on the quality of five areas of their relations. It

should be noted that 12 (46%) of the cities did not respond to this series of questions. City responses reflect the opinions of those who did, in fact, respond. The first question requested feedback on the general relationship between the two. As can be seen in Figure 10, 65% of the nonprofits rated the relationship with the city as good. One hundred percent (100%) of the city respondents rated the relationship with the nonprofit group as good.

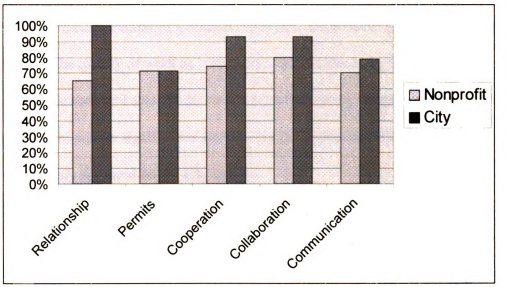

Figure 10 *Percent of Cities and Nonprofits that Gave a 'Good' Rating to Selected Aspects of their Relationship (2002)*

The commitment of nonprofits to obtaining the permits and/or permission to plant trees received the lowest positive score. Even the lowest score of the five was quite high at 71%. When asked about the amount of cooperation, scores were again high, with the 93% of cities giving a good rating. Favorable ratings were again given toward the possibility of greater levels of collaboration, with 80% of nonprofits and 93% cities responding in favor of such. Finally, lines of communication were rated good by 70% of nonprofits and 79% of cities.

Testing Hypothesis Three:

H(0) City forestry will rate highly the quality of work performed by nonprofit tree-planting groups.

H(a) Not as H(0)

To test this hypothesis, city respondents were asked to give their opinions regarding the quality of work performed by nonprofit tree planters. Four urban forestry related tasks commonly performed by nonprofit tree-planting organizations were listed. Cities then gave opinion of the quality of work as 'very poor', 'poor', 'neutral', 'good' or 'very good'. As can be seen in Table 17, the responses were heavily weighted on the positive end. A test for chi-square significance test was not performed for this question set because it was only appeared on the city survey.

Table 17 *Summary of Responding City Opinions Regarding Aspects of Nonprofit Activities (2002)*

	Very Poor	Poor	Neutral	Good	Very Good
Species Selection	---	7%	36%	21%	36%
Planting Techniques	---	---	14%	50%	36%
Tree Maintenance	14%	7%	29%	29%	21%
Volunteer Training	---	---	14%	57%	29%

Species selection and planting techniques received the highest marks. While not indicating that they were necessarily displeased, some room for improvement was seen by the cities when responding to the quality of volunteer training. Cities responded that nonprofits could use the most work in the area of maintenance. Even in the maintenance category, where nonprofits received the lowest rankings from the city, 79% of cities responded either neutrally or positively.

Conclusion: City forestry holds almost universally positive opinions of the quality of work performed by nonprofits. Therefore, H(0) is retained. City forestry programs are pleased with the quality of work performed by tree groups.

Testing Hypothesis Four:

H(0) City forestry and nonprofit tree-planting groups have good levels communication with each other.

H(a) Not as H(0)

To test this hypothesis, the reactions to six statements were analyzed. Five of the statements made up a block of questions found in the 'Working together' section. Respondents were asked to rate the quality of five measures of communication. The sixth statement was also found in this section, but was located in a different block of questions. Respondents reacted to this statement by providing their level of agreement.

Statement one, asked respondents to rate their relationship with each other. This statement demonstrated a statistically significant relationship at the .05 confidence level as found by the Pearson Chi-Square test. See Table 18. Cities that responded to this question gave the relationship high ratings 100% of the time. Cities were far more likely to rate communication highly, yet as previously discussed, often were unaware of the nonprofit functioning in their community.

Table 18 *'Working Together' Section of Survey Summary of Chi-Square Results: Nonprofit Tree Groups x City Forestry Programs (2002)*

	Pearson Chi-Square
Organization/city relationship	.045*
Commitment level for obtaining permits and/or permission to plant	.530
Cooperation between the organization and city forestry staff	.320
Possibilities of greater levels of collaboration	.111
Status of communication lines between the two	.246
Communication with org./city with volunteers is unclear	.625

**Significant to the (.05) confidence level*

When respondents were asked to gauge the level of commitment to obtaining the proper permits and permission to plant. Responses indicated that there was no significant relationship; both respondent groups gave nonprofits high marks. Respondents reacted similarly to the statement regarding the level of cooperation between the two groups. Both nonprofits and cities responded with almost universally high marks. Possibilities for greater levels of collaboration also were seen favorably, with some variation between groups. While 20% of nonprofits responded neutrally, 100% of cities rated the possibilities for greater levels of collaboration as, 'good'.

Reaction to the question about the status of communication revealed some variation within, but not between the groups. Even accounting for the variation, a strong majority of both groups rated the lines of communication positively. The sixth and final measure used to test this hypothesis asked respondents to react to the statement, 'Communication between my organization/department and volunteers is unclear'. Reactions to this question were not statistically significant in terms of differences between the two groups (p=.625). It is important to note. however, 71% of respondents agreed that communication with volunteers is unclear. It is strongly suspected that the results to this question reflect more the fact that it was the only question of the set to be

stated in the negative. In other words, this was the only question that by agreeing the respondent was giving a negative response.

Conclusion: The conclusions drawn from the set of questions focused on measuring the quality of communication between the two groups supports the hypothesis being tested. Nonprofits and cities do have good levels of communication, therefore H(0) is retained. Responses clearly demonstrated that both groups were happy with levels of communication and cooperation and see possibilities for greater levels of collaboration in the future.

Open-Ended Question Discussion:

In the final section of the survey, respondents were asked to share their opinions in an open-ended question section. Please note that responses to the open-ended section were transcribed and can be found in the appendix. Other than information that would have identified the respondent, answers appear exactly as they were given.

The first question asked how partnerships between nonprofit tree-planting groups and city forestry could be enhanced. Common themes arose in the city responses such as, more education for the volunteers, better communication and more involvement of the nonprofits in city projects. Nonprofits provided a variety of responses including a desire for the city to have more resources, less bureaucracy, and a realization that both groups are working toward the same goal.

Respondents were then asked to provide what they saw to be the benefits of working together with the other. Nonprofits acknowledged that cities were important for

providing the long-term maintenance of trees. One nonprofit replied that when working together with the city, " ...we are getting close to making systemic changes rather than 'top dressing' with plantings here and there." The city respondents' most commonly cited benefit of working with nonprofit tree groups was free labor. Also recognized were the increased awareness and support of the urban forest that nonprofit involvement can bring.

Although cities characterized the relationship with nonprofits very favorably in the scale questions, short answers revealed a less positive relationship. Problems mentioned included a lack of dependability, insufficient training, difficultics coordinating, political conflicts and problems with the length of time it takes non-professionals to do the work. One city respondent noted that nonprofits, "can work against a good city program if [the] worst case scenario develops by causing a reduction in city budgets." Nonprofits provided fewer responses to this question, but certainly did recognize disadvantages of working together. Nonprofits commented that cities were slow to change, inefficient organizationally, sometimes possess a lack of interest.

Finally, respondents were asked to provide suggestions to the other group to help them work together better. Cities suggested that nonprofits be more supportive of their work, with one respondent recommending nonprofits "complement city, don't compete or substitute." Additionally, it was stated that politics should be left out of the relationship. Multiple respondents mentioned communication; one respondent cautioned nonprofits to, "make sure the city forestry department knows the organization is there to volunteer." Nonprofit respondents expressed the desire to be listened to and involved. One respondent listed the benefits of working together as, "positive public relations, better educated citizens, trees maintained by volunteers, funding, grants and sponsorships."

Open-Ended Section Conclusions:

The open-ended section provided sentiments and concerns that were not drawn out by the other survey sections. Both groups responded frankly and at times negatively. It is very important to note that although the open-ended section produced less positive responses, there were no responses that reflected an outright hostility. None of the respondents expressed an unwillingness to work together. In all, responses were thoughtful and criticisms constructive.

V. Summary and Conclusions

Summary

Surveys were sent to nonprofit tree groups and the city forest programs under whose which jurisdiction they operate. The study area consisted of 20 states and the District of Columbia. This area corresponds with the US Forest Service Northeastern Area. Questionnaires were mailed to 81 tree groups in 18 states and 41 cities.

Program and department background information was collected from both nonprofits and cities. This information was used both to create a profile of survey respondents and to look for relationships with other attitudinal variables. In addition to this data, five identical sets of matched questions were asked of both groups. This information was then analyzed using SPSS to compare the two groups' opinions, perceptions and attitudes. It was expected that these two groups not only perceive the urban forest differently, but also have divergent view of the role of volunteers in urban forestry. It was further expected that city forestry programs would rate the quality of work performed by nonprofit poorly. Additionally, the quality of communication between the two groups was expected to be poor.

Recommendations for Future Study

The gap in the literature that exists surrounding the interactions between nonprofit tree-planting organizations and city forestry programs has not been closed by this study alone. Further study of how these groups work together is recommended. The opportunity exists to examine the areas of the country not included in this project.

Additionally, it is recommended that rather than survey by mail, a more in depth case-study approach be taken. Case studies of matched pairs of cities and tree-planting groups might provide more powerful information.

Survey Limitations

As mentioned in Chapter Three, survey response rates were lower than they might have been. Renowned survey expert Don Dillman noted that, "responding to a questionnaire is viewed as social exchange. People are seen as more likely to complete and return self-administered questionnaires if they trust that the rewards of doing so will, in the long run, out weigh the costs they expect to incur" (Dillman 1999:26). Minimizing the following four types of survey error can also increase response rates. Although the Dillman method was not specifically utilized, his types of survey error, and how they were addressed in this study are discussed below.

1. Sampling Error: The result of surveying only some, and not all, elements of the survey population. As previously discussed, the best attempts were made to identify all of the tree groups active in the study area for inclusion.
2. Coverage Error: The result of not allowing all members of the survey population to have an equal or known nonzero chance of being sampled for participation in the study. Because this study sought to include all tree planting groups and their corresponding cities, this error was avoided.
3. Measurement Error: The result of poor question wording or questions being presented in such a way that inaccurate or uninterpretable answers are obtained. This was a problem as it was discovered that some questions needed more explanation only after data analysis was undertaken. For example, questionnaires

sent to nonprofits did not ask groups to estimate their survival rates at a set or constant interval. Questionnaires sent to cities failed to ask for survival rates entirely. Questions otherwise caused no interpretation problems based on responses.

4. Nonresponse Error: The result of people who respond to a survey being different from sampled individuals who did not respond, in a way relevant to the study. It is not clear that this was a problem. From the available demographic information about the two groups, no geographic differences relevant to this study were apparent. Population size was a factor. Nonprofit responses were higher in larger cities. This may be due to the ephemeral nature of nonprofit organizations, especially those with smaller support bases. Additionally, nonprofits in small communities are expected to be less likely to employ a large, full time staff. It is important that cities of all sizes are represented. Future studies should put a focus on increasing the response rate from smaller communities.

Conclusions

Although municipal tree planting programs and nonprofit tree plantings groups have the same ultimate goal, they often have vastly different objectives. That is to say, all parties want a healthy and well-maintained urban forest, but the views on how to get to that point often differ. This study examined the relationship between nonprofit tree planting organizations and city forestry programs.

Testing the hypotheses did not produce the expected results in any of the four cases. Overall, remarkably few differences between the groups' attitudes and perceptions were borne out of the responses to this survey. The results show that nonprofit tree

groups and city forestry programs to a great extent share very similar attitudes toward volunteers, perceptions of the urban forest, the value of working together and of each other. The positive ratings given nonprofits by city respondents were less positive in regard to their maintenance practices. Attention to maintenance responsibilities must become a focus and a commitment for nonprofit groups. The results gathered from the survey are made more interesting by the fact that many of the anticipated (less positive) attitudes and perceptions were offered in the short answer section. If, in fact, nonprofit tree planting organizations and city forestry programs share such similar views, the possibilities for building more and better partnerships exist. It is hoped that this study will add to the body of urban forestry literature and inform city forestry programs and tree-planting groups alike as to how to work together better.

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APPENDICES

Map of Study Area

USDA Forest Service Northeastern Area

Email posted on 'URBNRNET' and 'Trees' listserves:

Hello!
I am looking for help gathering data for my Master's thesis.
I am a student at Michigan State University in the Urban Studies-Forestry program. My study will explore the relationship between city (municipal) forestry and not-for-profit tree planting organizations.

The geographic focus of the study is the US Forest Service Northeast Area (full list of states at the end of posting). To accomplish this I will survey by mail both the tree planting groups and the corresponding city forestry program(s) within whose jurisdiction they operate.

At this point I am trying to create a comprehensive list of non-profit groups in this northeastern area. Once a group has been identified as active in an area, I will then need the contact information for the corresponding city forester. If you are aware of organizations active in tree planting could you please email me any contact information you may have? (**katie@greeningofdetroit.com**)

I'm looking for the following:
Contact Name
Group Name
Address
Phone Number
Fax
Email

In addition, if you are a city forester or work for a forestry program that has a non-profit tree-planting group in your area, please let me know! I will need your contact information as well.

I feel confident this project will produce a very useful body of information. As an urban forester and employee of The Greening of Detroit, a not-for-profit tree planting organization, I know that more information about non-profit/city relationships in the field is much needed. Your help in making this research possible is greatly appreciated. Please feel free to contact me with any questions, comments or suggestions. I look forward to hearing from you!

Email to State Coordinators

Hello!

I am looking for assistance gathering data for my Master's thesis. I am a student at Michigan State University in the Urban Studies-Forestry program. My study will explore the relationship between city (municipal) forestry operations and not-for-profit tree planting organizations. To accomplish this I will survey both the tree planting groups and the corresponding city forestry program(s) within whose jurisdiction they operate. Data will be gathered by questionnaires administered via email. The geographic focus of the study is the US Forest Service Northeast Area.

I am asking State Coordinators for help locating and contacting active not-for-profit tree planting organizations in their states. Corresponding city contact information would also be very helpful. I hope to have the surveys out by mid-July.

Information requested:
Contact Name
Group Name
Address
Phone Number
Fax
Email

I feel confident this project will produce a very useful body of information. As an urban forester and employee of The Greening of Detroit, a not-for-profit tree planting organization, I know that more information about non-profit/city relationships in the field is much needed. Your assistance in making this research possible is greatly appreciated. Please feel free to contact me with any questions, comments or suggestions. I look forward to hearing from you!

Thank you,

Katie Armstrong
Project Manager
The Greening of Detroit
313.237.8733
katie@greeningofdetroit.com

Thanks so much,

Katie Armstrong
Project Manager
The Greening of Detroit
313.237.8733
313.237.8737 fx
katie@greeningofdetroit.com

Area of focus:
Connecticut
Delaware
District of Columbia
Illinois
Iowa
Indiana
Maine
Maryland
Massachusetts
Michigan
Minnesota
Missouri
New Hampshire
New Jersey
New York
Ohio
Pennsylvania
Rhode Island
Vermont
West Virginia
Wisconsin

Survey Pretest
Feedback Form

Thank you so much for taking the time to review my survey! Please fill out your survey as completely as you can. Feel free to place your comments directly on the survey, in addition to providing the specific information requested below. I am hoping to receive feedback from my reviewers no later than February 1, 2002. I expect to complete my project early summer – at which point I will gladly share my data with you!

This survey will be sent out to nonprofit tree planting organizations, with similar surveys being sent to municipal forestry operations. {nonprofit testers} This survey will be sent out to municipal forestry operations, with similar surveys being sent to nonprofit tree planting groups. {city forestry testers} The survey area is the U.S. Forest Service Northeastern Area (20 states and the District of Columbia).

Amount of time to fill out the survey _____

Were any of the questions or instructions unclear?

Are there any additional questions you would like to see included in this survey?

Other comments or suggestions:

THANK YOU!

SURVEY SENT TO NONPROFITS

PARTNERSHIPS IN URBAN FORESTRY

You have been selected to participate in a study of partnerships in urban forestry.

I am a graduate student at Michigan State University pursuing a Master's degree in a joint program of Forestry and Urban Studies. For two years I have been working for The Greening of Detroit, a non-profit organization dedicated to reforesting the city of Detroit. Through my work and studies I have developed a keen interest in the current level of partnerships between non-profit tree planting organizations and the city forestry operations within whose jurisdiction they function.

Please take about 30 minutes to answer the questions in this survey to the best of your knowledge. The survey has been designed to collect baseline information as well as specific data concerning levels of cooperation between non-profits and city programs. Be assured that your responses are and will remain confidential. Your privacy will be protected to the maximum extent allowable by law.

Participation is voluntary and much appreciated. You indicate your voluntary agreement to participate by completing and returning this questionnaire. Answer only the questions you are comfortable answering. When finished with the questionnaire, it can be returned sealed with the attached sticker and mailed back to me- postage is paid. The deadline for survey return is Tuesday April 9, 2002. Every response is important. Each returned survey increases the perspective and quality of this project.

If you have any questions or concerns regarding the questionnaire, please feel free to contact me, or the Principal Investigator, Dr. J. James Kielbaso at (517) 355-7533. If you have questions about your role and rights as participants in this research, please contact Dr. Ashir Kumar, Chair of the University Committee on Research Involving Human Subjects at (517) 355-2180. I look forward to receiving your response!

Thank you,

Katie Armstrong

Section 1
Organization Information

1. How old is your organization?

   ❑ Less than one year ❑ 1-3 years old ❑ 4-6 years old
   ❑ 7-10 years old ❑ 11-20 years old ❑ 21 years or older

2. Does your organization have 501© 3 status?

   ❑ No ❑ In process of applying ❑ Don't know ❑ Yes

   Number of years_____

3. Does your organization offer membership opportunities?

   ❑ No ❑ Don't know ❑ Yes

   If yes, how many members? _____

4. How many volunteers did you work with in the year 2000? _____

5. Do you have a paid staff?

   ❑ No ❑ Yes

   If yes, how many_____

Please list job titles and brief description of duties:

6. Does your group have a mission statement?

   ❑ Yes ❑ Don't know ❑ No

If yes, please provide:

7. How many trees was your group responsible for planting in:

   2001_____ 2000 _____ 1999 _____ 1998_____ 1997_____

8. How many trees total has your organization planted ?

❑ 1-1,000 ❑ 1,001-5,000 ❑ 5,001-10,000

❑ 10,001-20,000 ❑ 20,001-40,000 ❑ Over 40,001

9. Which of the following provide your organization with tree care knowledge and expertise?

❑ Staff ❑ Members ❑ Volunteers ❑ Other Please list:

10. Do you evaluate the trees you plant for health and survival after planting?

❑ No ❑ Don't Know ❑ Yes

If yes, how long after planting?

❑ At six months ❑ At one year

❑ At two years ❑ At three years

❑ Regular checks at intervals of:_____

11. Do you keep track of the survival rate of your plantings?

❑ No ❑ Don't know ❑ Yes

If yes, please estimate percent survival:_____

12. What is the source of your planting stock? (Total should equal 100%)

Large regional nursery	
Local nursery	
City nursery	
Organization's own nursery	
Other	
Total	**100%**

13. What type of tree does your organization plant a majority of the time?

❑ seedlings ❑ bare root ❑ containerized ❑ balled-in-burlap ❑ other

14. Are there multiple tree planting organizations in your community?

❑ Yes ❑ Don't know ❑ No

If yes, how often does your organization work with the other(s) on the following:

	Frequently	Occasionally	Never
Plantings			
Obtaining volunteers			
One-time events			
On-going projects			
Tree maintenance			
Sharing technical information			

15. From what sources did your organization receive funding in the year 2000? (Total should equal 100%)

Federal grant money	
State grant money	
Municipal funding	
Donations from individuals (including membership dues)	
Corporate or business donations	
Public/private foundations	
Other	
Total	**100%**

16. Please check how often your organization, or members of your organization initiate the following:

	Monthly	At least twice a year	At least once a year	Rarely	Never	Not Applicable
Tree planting						
Youth education						
Neighborhood beautification						
Tree watering						
Tree maintenance (other than watering)						
Tree sales						
Seedling give-aways						
Community workshops						
Contact with local tree board or commission						
Contact with State or Federal Agencies						
Arbor Day celebrations						
Other						

17. Where does your organization plant trees?

❑ streetsides ❑ yards ❑ school grounds ❑ churches

❑ brownfields ❑ vacant lots ❑ parks ❑ other

Section 2
Working with the City

18. Please check the box that best reflects your opinion of the following:

	Very good	Good	Neutral	Poor	Very Poor	Unsure
Your organization's relationship with the manager of your city's trees						
The ease of obtaining permits and/or permission to plant						
The amount of cooperation between your organization and city forestry						
Your organization's relationship with elected officials (mayor, city council, aldermen, etc.)						
The possibility of greater levels of collaboration between your organization and city forestry						
Lines of communication between your organization and city forestry						

19. Please indicate how often your organization provides the following to your city's urban forestry program:

	Monthly	At least twice a year	At least once a year	Rarely	Never	Not Applicable
Assistance pruning street or park trees						
Assistance with maintenance other than pruning						
Written or vocal support (such as for budget hearings)						
Assistance education residents						
Assistance with street or park tree plantings						
Other:						
Other:						

Section 3
Working With Volunteers

20. Please check the box that best represents your opinion:

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree	Unsure
Volunteers are important in urban forestry						
Communication between my organization and volunteers is clear						
Volunteers can improve my forestry program						
Volunteer plantings are well maintained						
Volunteers are a helpful labor force						
Volunteer plantings are well executed						

21. Does your organization use volunteer labor to accomplish the following?

❑ planting ❑ pruning ❑ watering ❑ species selection ❑ inventory

❑ other, please list_____

Section 4
Your Urban Forest

22. Please check the box that best represents your opinion:

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree	Unsure
A strong concern for the urban forest exists in my community						
The trees in my city are properly maintained						
More trees are needed in my city						
My city's urban forest is in decline						
Trees in my city are pruned on a regular cycle						
Planting is the most important step for reforesting a city						

Section 5
Short Answer Questions

Thank you very much for taking the time to complete this survey! The following short answer section is optional, but any additional information you can provide will greatly enhance the quality of this research.

23. In your opinion, how could partnerships between city forestry and your organization be enhanced?

24. My organization's biggest obstacles to fulfilling its mission are:

25. What are the benefits of working with your city's urban forestry program?

26. What are the disadvantages of working with city forestry?

27. Do you have any suggestions for city foresters to help them work with organizations such as yours?

Thank you very much for taking the time to complete this survey!

SURVEY SENT TO CITY FORESTRY

PARTNERSHIPS IN URBAN FORESTRY

You have been selected to participate in a study of partnerships in urban forestry.

I am a graduate student at Michigan State University pursuing a Master's degree in a joint program of Forestry and Urban Studies. For two years I have been working for The Greening of Detroit, a non-profit organization dedicated to reforesting the city of Detroit. Through my work and studies I have developed a keen interest in the current level of partnerships between non-profit tree planting organizations and the city forestry operations within whose jurisdiction they function.

Please take about 30 minutes to answer the questions in this survey to the best of your knowledge. The survey has been designed to collect baseline information as well as specific data concerning levels of cooperation between non-profits and city programs. Be assured that your responses are and will remain confidential. Your privacy will be protected to the maximum extent allowable by law.

Participation is voluntary and much appreciated. You indicate your voluntary agreement to participate by completing and returning this questionnaire. Answer only the questions you are comfortable answering. When finished with the questionnaire, it can be returned sealed with the attached sticker and mailed back to me- postage is paid. The deadline for survey return is Tuesday April 9, 2002. Every response is important. Each returned survey increases the perspective and quality of this project.

If you have any questions or concerns regarding the questionnaire, please feel free to contact me, or the Principal Investigator, Dr. J. James Kielbaso at (517) 355-7533. If you have questions about your role and rights as participants in this research, please contact Dr. Ashir Kumar, Chair of the University Committee on Research Involving Human Subjects at (517) 355-2180. I look forward to receiving your response!

Thank you,

Katie Armstrong

Section 1
Department Information

1. Does your city employ a city forester?
   ❑ No ❑ Yes, full time ❑ Yes, part-time

   If part time, please specify the percentage of time dedicated to city forestry
   _____%

2. Please check all that apply to the level of education attained by the person primarily responsible for tree care decisions:

   ❑ ISA certified arborist

   ❑ BS Arboriculture, or related science

   ❑ Ph.D. Arboriculture or related science

   ❑ Other professional training, please describe:
   _____

3. What department handles urban forestry or tree care operations in your city?

   ❑ Forestry Department
   ❑ Department of Public Works
   ❑ Parks and Recreation Department
   ❑ Department of Public Service
   ❑ Other_____

4. Does your community contract out for any of the following urban forestry operations?

   ❑ All routine street tree maintenance
   ❑ Emergency work
   ❑ All routine park tree maintenance
   ❑ Planting
   ❑ Pruning
   ❑ Removals
   ❑ Other _____

5. How many city employees serve on tree crews? _____

6. How many contract employees serve on tree crews? _____

7. Does your city have a written master plan for urban forestry?

❑ No ❑ Yes ❑ Don't Know

8. Does your department have a mission statement?

❑ No ❑ Yes ❑ Don't Know

9. Does your city have a tree ordinance?

❑ No ❑ Don't Know ❑ Yes

If yes, please check all those that are covered by your city's ordinance:

- ❑ prohibition of topping
- ❑ insect and disease control
- ❑ utilization of wood waste
- ❑ guidelines for developers
- ❑ prohibited species
- ❑ tree protection during construction
- ❑ other: _____

10. Does your city have an inventory of street trees?

❑ No ❑ Don't Know ❑ Yes

If yes, in what year was it last updated?

_____

11. Can you estimate the total number of trees along the streets in your city?

❑ No ❑ Yes

Number_____

12. How many trees did your department plant during these years?

2001_____ 2000_____ 1999_____ 1998_____ 1997_____

13. How many trees did your department remove during these years?

2001_____ 2000_____ 1999_____ 1998_____ 1997_____

14. What is the source of your planting stock? (Total should equal 100%)

Large regional nursery	
Local nursery	
City nursery	
Organization's own nursery	
Other	
Total	**100%**

15. What type of tree does your department plant a majority of the time?

❑ seedlings ❑ bare root ❑ containerized ❑ balled-in-burlap ❑ other

16. How would you characterize your department's budget?

❑ decreasing ❑ stable ❑ increasing

17. Please estimate the percentage of **time** spent by your department on the following:

Planting	
Removals	
Maintenance	
Administration	
Workshops, continuing education	
Other _____	
Other _____	
Total	**100%**

18. Please estimate the amount of your department **budget** that is spent on the following:

Planting	
Removals	
Maintenance	
Administration	
Workshops, continuing ed.	
Other _____	
Other _____	
Total	**100%**

19. Is your community a Tree City USA?

❑ No ❑ Don't Know ❑ Yes

20. Does your community have a citizen's tree planting organization?

❑ No ❑ Don't Know ❑ Yes

If you checked 'No' or 'Don't Know' for question 18, PLEASE SKIP SECTION 2

Section 2
Working with Citizen Tree Planting Organizations

21. Please check the box that best reflects your opinion of the following:

	Very good	Good	Neutral	Poor	Very Poor	Unsure
My department's relationship with the citizen tree planting organization(s)						
The commitment level of the organization(s) toward obtaining permits and/or permission to plant						
The amount of cooperation between your department and the citizen forestry group(s)						
The possibility of greater levels of collaboration between your department and the citizen forestry group(s)						
Lines of communication between your department and the citizen forestry group(s)						

22. Please indicate how often your department receives the following from a non-profit tree planting organization:

	Monthly	At least twice a year	At least once a year	Rarely	Never	Not Applicable
Assistance pruning street or park trees						
Assistance with maintenance other than pruning						
Written or vocal support (such as for budget hearings)						
Assistance education residents						
Assistance with street or park tree plantings						
Other:						
Other:						

23. Please rate the quality work performed by the citizen tree planting organization(s) in your city.

	Very good	Good	Neutral	Poor	Very Poor	Unsure
Species selection						
Planting techniques						
Maintenance						
Volunteer training						

24. Please check the box that best represents your opinion:

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree	Unsure	Not Applicable
Volunteers are important in urban forestry							
Communication between my department and volunteers is clear							
Volunteers can improve my forestry program							
Volunteer plantings are well maintained							
Volunteers are a helpful labor force							
My department encourages volunteer involvement							
Volunteer plantings are well executed							

25. Does your department use volunteer labor to accomplish the following?

❑ planting ❑ pruning ❑ watering ❑ species selection ❑ inventory

❑ other, please list_____

Section 3
Your Urban Forest

26. Please check the box that best represents your opinion:

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree	Unsure
A strong concern for the urban forest exists in my community						
The trees in my city are properly maintained						
More trees are needed in my city						
My city's urban forest is in decline						
Trees in my city are pruned on a regular cycle						
Planting is the most important step for reforesting a city						

Section 5
Short Answer Questions

Thank you very much for taking the time to complete this survey! The following short answer section is optional, but any additional information you can provide will greatly enhance the quality of this research.

27. In your opinion, how could partnerships between your department and citizen tree planters be enhanced?

28. My department's biggest obstacles to fulfilling its tree care goals are (for example equipment, budget, political support, etc.):

29. What are the benefits of working together with non-profit, or citizen groups in urban forestry?

26. What are the disadvantages of working together with such groups?

27. Do you have any suggestions for citizen tree planting organizations to help them work city forestry?

Thank you very much for taking the time to complete this survey!

PLEASE RETURN YOUR SURVEY NO LATER THAN

TUESDAY APRIL 9, 2003

Katie Armstrong
The Greening of Detroit
1418 Michigan Ave.
Detroit, MI 48216
313-237-8733

Katie Armstrong
The Greening of Detroit
1418 Michigan Ave.
Detroit, MI 48216

Short Answer Section

Non Profit Organizations

In your opinion, how could partnerships between city forestry and your organization be enhanced?

- "If we didn't have to deal with the bureaucracy of municipal government it would move more smoothly."
- "A more active partnership."
- "City forestry needs more resources to bring to the table."
- "Realizing we have the same goal- bettering our community. We need to work cooperatively."
- "Having a forestry department would help. Now folks who work on forestry also have a lot of after maintenance tasks as well."

Your organization's biggest obstacles to fulfilling its mission are:

- "We are all volunteer with limited time to spend on all environmental issues, including forestry."
- "Money."
- "Money and ongoing maintenance."
- "Having enough money to do all the projects. I would like to do and to hire the staff necessary to do them exceptionally."
- "To many thing to be done, not enough help and money. We are stretched too think between inventory, outreach, education, promoting and fundraising."
- "Resistance on the part of some residents to maintenance and planting of trees. Residents are sometimes unwilling to deal with fall leaves. A few are so obsessed with lawns that hey resent the shade that trees cast."
- "Our mission is much broader than tree planting. Our outreach obstacles in general focus around it taking a lot of staff time to complete projects wit community input, yet hard to fund staff time and it is our most valuable resource."

What are the benefits of working with your city's urban forestry program?

- "Strong support and insure trees are well maintained."
- "Assistance with long term care for plantings and obtaining permits and licenses."
- "In-kind support in the form of office space, phone, fax, copier, etc. Expertise, information, support, etc.!"
- "The could help us with locating tree planting sites and outreach to the community."
- "Win-win!"
- "I feel like maybe we are getting close to making systemic changes rather than 'top-dressing' with plantings here and there."

What are the disadvantages of working with your city's urban forestry program?

- "Have had union concerns in the past. Generally work through them."
- "Organizational inefficiency, red tape and lack of follow through."
- "None so far."
- "The city's lack of interest and restrictions."
- "Some town employees who do some of the tree work are not well trained about tree culture."
- "Changes are slow. Elected officials don't want to allocate funding but tat the same time do expect to see all of the constituent tree issues addressed."

Do you have any suggestions for city foresters to help them work with organizations such as yours?

- "Listen to community member who are interested/dedicated to helping reforest."
- "Maintain an open mind and permit yourselves to think outside the confines of business as usual."
- Get the community involved, they will be the benefactors!"
- " Try to see the advantages a good partnership could bring: positive public relations, better educated citizens, trees maintained by volunteers, funding, grant, and sponsorships."

City Forestry Section

In your opinion, how could partnerships between your department and citizen tree planters be enhanced?

- "Dedicate a full-time position to organizing volunteer planting and small tree maintenance program."
- "Citizen planters rarely tell our department where trees are being planted, or ask where they should be planted."
- "We have no adult, organized groups. Would like one if they would work with the city, but must be organized and supportive."
- "Stronger volunteer support. This important subject is largely unsupported due to lack of funding and higher priorities. One day our communities might regret not giving it more attention."
- "More emphasis needs to be placed on such projects utilizing our Adopt-a-Park groups and block clubs."
- "More time to devote to meeting with all the prospective groups to promote these types of partnerships and the staff to follow-up."
- "More education of community volunteers."
- "More funding for education and training programs, equipment and tools."
- "The greater their level of arboricultural education, the better they function as helpers."
- "The organization does a lot on their own and more involvement in city projects would be helpful."

- "Education regarding planting and tree maintenance would enhance our program."
- "More volunteers, more civic minded folks are need to 'step-up' and take responsibility."
- "It is good just the way it is now."

Your department's biggest obstacles to fulfilling its tree care goals are:

- "$"
- "Budget."
- "Budget and political support." (multiple)
- "Budget restrictions."
- "Budget, equipment, manpower."
- "Budget and staffing."
- "Budget problems (too few people)"
- "Lack of funding, need stronger volunteer support."
- "Need more money or volunteers to water, train, mulch, etc. Day to day maintenance of newly planted trees."
- "We have faced severe budgetary cuts that have resulted in a reduction of manpower and equipment. These shortages have caused us to abandon our rotational pruning program and has limited out removal capabilities."
- "Need a community forestry management plan and street tree planting plan to use as a catalyst for securing funding and developing programs."
- "Expediting contracts."
- "Our landscaping budget is very low when spread among park sites. We are lacking the funds to properly maintain the trees we are planting due to insufficient staffing."

What are the benefits of working together with nonprofit, or citizen groups in urban forestry?

- "Cost reductions for labor, promotes community tree ownership among community residents and can increase manpower."
- "Free labor and an interest in the community around them."
- "Increased resources, both funding and administrative."
- "An expanded and interested labor force is a benefit. However, most volunteers participate on a limited basis, without a regular schedule."
- "Volunteers are generally committed and take ownership of their projects."
- "Citizens are proud of their city and want to take better care of it- make it better."
- "Stretches resources, builds good will and pride, good public relations, brings in new ideas and advocates."
- "Involvement, ownership, buy-in, and word of mouth effect."
- "Awareness and concern for the urban forest."
- "Care monitoring of newly planting trees. Develop political support."
- "Our nonprofit groups have political clout to an extent. They also have set up and maintain our new city nursery (500 trees added each year) purchased with grant money."

- "This offers some help with the pruning of small trees and the city's reforestation efforts."
- "They give great suggestions."
- "It is a 'feel good' thing that generates support for the trees and tree programs."

What are the disadvantages to working together with such groups?

- "Difficult to plan and coordinate work dates, under trained or require supervision."
- "More often their goals and objectives are met, not necessarily the goals and objectives of the forestry division."
- "Inconsistency as turnover occurs in these organized volunteer groups."
- "Poor communication."
- "Sometimes not well organized or knowledgeable relationships with the city can sour due to egos and agenda. Can work against a good city program if worst-case scenario develops by causing reduction in city budgets."
- "Inconsistent support and an expectation (or demand) that the city provide more resources than it can."
- "Groups (volunteer) tend to lose interest or momentum with the more mundane maintenance projects."
- "Establishing continuous involvement, long term commitment, coordinating projects and providing meaningful training."
- "A little knowledge is dangerous."
- "May not be trained enough and are not completely dependable."
- "I do not see any at this time."
- "A couple of over-zealous folks... all good intentions."
- "It takes much longer working with amateurs."
- "The disadvantage to working together with such groups is the differing political agenda. Certain groups have strong opinions on the running of the parks which can differ with our goals."

Do you have any suggestions for nonprofit tree planting organizations to help them work better with city forestry?

- "A better balance between their agenda and the real needs of the local urban forest."
- "Work on communication."
- "Communicate, meet regularly."
- "Complement city, don't compete or substitute. Ask how you can do the most good. Don't assume. Support city staff (of course if the city program is run by a Bozo, more forceful action is justified)."
- "Public education, small tree maintenance."
- "Nationwide affiliation with such a group (e.g. Audubon, Sierra, etc.) with regional chapters, which provide incentives, training, etc."
- "Be supportive."
- "Reforestation is the goal. Keep politics to the side of planting projects, not in the middle. Review and follow the planting blueprints set up by the urban

forester, who usually will determine the specimens best suited for the local environment."

- "Let them [the nonprofit] handle the tree inventory. That way they know what they are dealing with. Also encourage them to get the school kids involved- young and old."
- "Make sure the city forestry department knows the organization is there to volunteer."

MICHIGAN STATE
UNIVERSITY

August 20, 2001

TO: James KIELBASO
126 Natural Resource Bldg.

RE: **IRB# 01-567** CATEGORY: EXEMPT 1-C
APPROVAL DATE: August 17, 2001

TITLE: PARTENERSHIPS IN URBAN FORESTRY

The University Committee on Research Involving Human Subjects' (UCRIHS) review of this project is complete and I am pleased to advise that the rights and welfare of the human subjects appear to be adequately protected and methods to obtain informed consent are appropriate. Therefore, the **UCRIHS approved this project.**

RENEWALS: UCRIHS approval is valid for one calendar year, beginning with the approval date shown above. Projects continuing beyond one year must be renewed with the green renewal form. A maximum of four such expedited renewals possible. Investigators wishing to continue a project beyond that time need to submit it again for a complete review.
REVISIONS: UCRIHS must review any changes in procedures involving human subjects, prior to initiation of the change. If this is done at the time of renewal, please use the green renewal form. To revise an approved protocol at any other time during the year, send your written request to the UCRIHS Chair, requesting revised approval and referencing the project's IRB# and title. Include in your request a description of the change and any revised instruments, consent forms or advertisements that are applicable.
PROBLEMS/CHANGES: Should either of the following arise during the course of the work, notify UCRIHS promptly: 1) problems (unexpected side effects, complaints, etc.) involving human subjects or 2) changes in the research environment or new information indicating greater risk to the human subjects than existed when the protocol was previously reviewed and approved.

If we can be of further assistance, please contact us at (517) 355-2180 or via email: UCRIHS@msu.edu. Please note that all UCRIHS forms are located on the web: http://www.msu.edu/user/ucrihs

Sincerely,

Ashir Kumar, M.D.
UCRIHS Chair

AK: bd
cc: Katherine Armstrong
1418 Michigan Ave.
Detroit, MI 48216

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