HOW URBAN RESIDENTS RATE AND RANK THE BENEFITS AND PROBLEMS ASSOCIATED WITH TREES IN CITIES

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Abstract. Residents of the largest metropolitan areas in the continental United States were surveyed about the benefits and problems of trees in urban areas. The public rated the social, environmental, and practical benefits of trees highly. The ability of trees to shade and cool surroundings was the highest-ranked benefit. Their potential to help people feel calmer was ranked second highest. Potential problems with trees were not considered to be reasons not to use trees. Practical problems, such as causing allergies, were bigger concerns than were financial issues. People who strongly agreed that trees were important to their quality of life rated the benefits of trees more highly than people who did not strongly agree. Those who strongly agreed and those who did not strongly agree ranked the benefits and problems similarly. Responses varied slightly based on demographic factors. For example, those who did not strongly agree that trees were important to life quality were more likely than expected to be 18 to 21 years old or to earn US$20,000 or less per year. The general public in urban areas, not just people who volunteer for tree programs, felt very positively toward trees in cities.

Key Words. Benefits of trees; community forestry; survey; urban forest.

Urban forests are ecosystems characterized by the presence of trees and other vegetation in association with human developments (Nowak et al. 2001). They are a significant natural resource in urban areas, where approximately 80% of the U.S. population now lives (Dwyer et al. 1992; U.S. Census Bureau 2000; Nowak et al. 2001). Increasing urbanization and development have placed urban forests under extreme pressure, threatening their ability to maintain the basic ecological functions, including water and air purification, upon which human existence depends (USDA 1996). Community involvement is critical for the continued vitality of the urban forest (USDA 1996; Dwyer et al. 2002). To encourage and ensure this involvement, it is important to understand the public's shared beliefs and attitudes toward trees that promote their care, management, and protection (Sommer et al. 1994; Coder 1996). We surveyed people in large metropolitan areas across the United States, inquiring about their attitudes and backgrounds.

OTHER RESEARCH

People in urban forestry have for many years questioned what has motivated the public to become involved in tree programs, to volunteer their time, and to favor municipal involvement with trees. The values and motivations of urban forestry volunteers were examined in one study (Westphal 1993). It showed that such volunteers are motivated by "deep" values, such as spiritual benefits and bringing nature closer, more than by practical benefits, such as reducing noise and increasing property value. Austin (2002) interviewed people connected with tree-planting projects in Detroit and found similar motivations. Another study, which focused on residents who participated in tree plantings (Sommer et al. 1994), showed that tree plantings provided a number of social benefits, including encouraging neighborhood interaction and empowering residents to improve their surroundings. Other research studied people involved with the Chicagoland Treemendous Trees program, a program documenting large trees (Barro et al. 1997). In addition to the numerical information required on the large-tree nomination form, many participants included supplemental, often emotional, descriptions of the aesthetic, functional, and symbolic meanings of the trees they nominated. Does the general public have attitudes that are similar to those of volunteers?

Previous surveys of how the public values urban forests have yielded mixed results. The concept of the urban forest and its benefits appears not well understood or recognized by the public (Stiegler 1990; Hull 1992). In one survey, people attributed great significance to the positive emotional feelings evoked by trees and their role in improving community image, but the environmental, leisure, and functional benefits were less recognized (Hull 1992). In another study, the concept of the "urban forest" was not well recognized or understood by participants, but awareness was improved with education (Stiegler 1990). More recently, Lohr and Pearson-Mims (2002) found that urban residents generally held very positive attitudes toward trees in cities and that these attitudes were even more positive if they had participated in activities involving gardening and nature during childhood. If the goals of urban and community forestry programs are to be realized, it is imperative that we understand the factors that affect adult sensitivities to urban trees.

OBJECTIVES

The results reported here are a portion of a larger survey, funded by the USDA Forest Service Urban and Community

Forestry Program on the recommendation of the National Urban and Community Forestry Advisory Council. The goal of this research was to examine the relationship between childhood contact with nature and adult attitudes toward trees in urban areas (Lohr and Pearson-Mims 2002). The specific objectives addressed in this paper are to (1) assess the knowledge and attitudes of urban residents regarding trees in cities, (2) assess how much urbanites agree that trees are important to their quality of life, (3) determine whether demographic factors influence this response, and (4) determine whether people's attitudes toward trees and quality of life influence their attitudes toward other characteristics of urban trees.

METHODS

A nationwide, 20-minute telephone survey was conducted. It was administered by the Social and Economic Sciences Research Center at Washington State University. A survey sample combining randomly generated and directory listed telephone numbers for urban households was purchased from Genesys Sampling Systems of Fort Washington, Pennsylvania. The sample consisted exclusively of households in the 112 most-populated metropolitan areas in the continental United States. Questions were pre-tested on a random sample of the general public to develop a final valid and reliable questionnaire. The nationally accepted "total quality design" method procedures (Dillman 1978) were adopted for the development and implementation of the survey.

Completed surveys were obtained from 2,004 randomly selected adults. The overall response rate was 51.8%, which is high for residents of large metropolitan areas (Groves and Couper 1998).

Participants were surveyed regarding their understanding and appreciation of urban trees. Questions assessed different types of values that people assign to trees, including utilitarian, social, and aesthetic. Participants were read a series of opinion statements about why trees should or should not be used in urban areas; for example, "Trees should not be planted, because their roots crack sidewalks." These attitude questions were measured on a four-point scale, with possible responses ranging from 1 (strongly disagree) to 4 (strongly agree). Participants were asked to indicate the extent to which they agreed or disagreed with each statement. Sociodemographic information about the participants, such as age, education, and income, also was gathered from the survey.

Statistical Analyses

A mean rating for each statement was calculated. These means were separated using a 95% confidence interval to compare selected responses. Statements were divided into two groups: those that listed reasons to have trees and those that represented problems with trees. The means within each group were then sorted by magnitude to determine the rankings; no additional statistics were calculated on the rankings. Chi-square statistics from two-way frequency tables were used to determine which demographic variables influenced respondents' attitudes toward trees, and the magnitude of the cell chi-square was used to interpret the relative importance of the levels within a significant demographic variable.

RESULTS AND DISCUSSION

Demographic Characteristics—Based on All People Surveyed

Forty-four percent of the people surveyed were male and 56% were female. They ranged in age from 18 to 90 years; the average age was 42. When asked about their ethnic background, 75% identified themselves as White/European. Approximately 60% had an annual income of US$50,000 or less. Less than half had completed a 4-year college degree (41%). Most of those surveyed said that they had not lived in a city during early childhood (66%).

Reasons to Have Trees in Urban Areas—Based on All People Surveyed

The highest ranked of seven possible reasons to have trees in cities was their importance in shading and cooling downtown areas (Table 1). Urban residents overwhelmingly agreed with this statement; the mean of the responses was 3.69 on a scale from 1 (strongly disagree) to 4 (strongly agree). In fact, people overwhelmingly agreed with all seven of the statements, each achieving a mean that was greater than neutral (2.5). Other studies have documented positive attitudes among people involved in tree programs (Westphal 1993; Sommer et al. 1994; Barro et al. 1997); these results and others from this study show that the positive attitude is widespread among the general public as well (Lohr and Pearson-Mims 2002).

The second most important reason for trees in cities was that they "help people feel calmer." This response is in line with other studies which have shown that people generally appreciate the practical and aesthetic values of trees but also attribute great significance to other, less tangible, benefits that they provide (Dwyer et al. 1991; Westphal 1993; Sommer et al. 1994; Barro et al. 1997).

Other reasons for having trees in cities, including to reduce smog and dust, to reduce noise, and to show that stores care about the environment, also received very positive ratings and ranked 3, 4, and 5, respectively.

Respondents considered the abilities of trees to "… make interesting sounds as their leaves rustle" and "… attract wildlife" the least important reasons to utilize them in cities. The means for these two statements were not statistically different, as indicated by the overlap in their margins of error.

Problems with Trees in Urban Areas—Based on All People Surveyed

Respondents ranked the fact that trees can cause allergies as the leading problem among eight potential problems with trees in cities (Table 2). The second biggest problem with

Table 1. Reasons to have trees in cities, ranked by urban residents' level of agreement with each statement.

Reasons to have trees	Rank[z]	Level of agreement[y]
Trees are important in downtown areas because they shade and cool their surroundings	1	3.69 ± 0.03
Trees in cities help people feel calmer	2	3.56 ± 0.03
Trees should be planted in business districts to reduce smog and dust	3	3.49 ± 0.03
Trees should be used in cities because they reduce noise	4	3.36 ± 0.04
Trees in shopping areas make people think the stores care about the environment	5	3.18 ± 0.04
Trees should be used in cities because they make interesting sounds as their leaves rustle	6	2.97 ± 0.04
Trees should be planted in cities to attract wildlife	7	2.93 ± 0.05

[z]Ranking based on the order of the means.
[y]Mean ± margin of error, based on a 95% confidence interval. Means are based on a scale from 1 (strongly disagree) to 4 (strongly agree).

Table 2. Problems with trees in cities, ranked by urban residents' level of agreement with each statement.

Problems with trees	Rank[z]	Level of agreement[y]
Trees are a problem in cities because they cause allergies	1	1.64 ± 0.04
Trees should not be used in business districts because they block store signs	2	1.57 ± 0.03
Trees should not be planted because their roots crack sidewalks	3	1.50 ± 0.03
Trees should be removed from cities because they can fall across power lines	4	1.44 ± 0.03
Trees should not be used in cities because they make it difficult to detect criminal behavior	5	1.43 ± 0.03
Trees should not be planted along streets because they drip sap or sticky residue on parked cars	6	1.42 ± 0.03
Trees should not be planted in cities because they are ugly when they are not maintained	7	1.32 ± 0.03
Trees should not be planted in cities because they cost the city too much	8	1.30 ± 0.03

[z]Ranking based on the order of the means.
[y]Mean ± margin of error, based on a 95% confidence interval. Means are based on a scale from 1 (strongly disagree) to 4 (strongly agree).

trees was "… because they block store signs." Even though these two statements were ranked as the most convincing reasons not to have trees, it should be noted that respondents did not strongly agree or even agree with either of them. On the four-point scale, the means for these statements were between strongly disagree (1.0) and disagree (2.0). In fact, all of the listed problems with trees in cities received low scores, indicating that people disagreed with each of them. Respondents apparently did not feel that any of these problems were valid reasons not to plant trees in cities. This finding is consistent with Westphal's (1993) study of urban forestry volunteers: Many of them had difficulty ranking "annoyances" and 14% said there were none.

The potential problems that trees "… can fall across power lines," "… make it difficult to detect criminal behavior," and "… drip sap or sticky residue on parked cars" were not statistically different from each other, as indicated by the overlap in the margins of error of their means.

Respondents considered "… they cost the city too much" and "… they are ugly when they are not maintained" to be the least important reasons not to have trees in cities. The means for these two statements also were not statistically different from each other.

Demographic Characteristics—Based on Attitude Toward Trees and Quality of Life

The previous results tell how the typical person interviewed felt about trees. It is also important to know whether there are some people who feel differently than the average person feels. For these analyses, we compared people who strongly agreed with the statement "You consider trees important to your quality of life" with people who did not strongly agree. We wanted to see whether and how they differ from each other. We then analyzed whether people who strongly agreed that trees were important to their quality of life ranked reasons for or against trees differently than people who did not strongly agree.

Most respondents (83%), regardless of their demographic characteristics, strongly agreed with the statement "You consider trees important to your quality of life." Those people who did not strongly agree were slightly different in make-up than those who strongly agreed (Table 3). They

were more likely to be men than expected. Those who did not strongly agree were much more likely to be young (18 to 21 years old) and were more likely to have a high school diploma or less. Their annual income was likely to be US$20,000 or less.

Responses also varied with ethnic background (Table 3). People who did not strongly agree that trees were important to their quality of life were less likely to be White and more likely to be African American or Asian American than expected. Childhood community also influenced the responses. People who did not strongly agree that trees were important to their quality of life were more likely to have lived in the city and less likely to have lived on a farm during early childhood than expected.

While there were differences noted between those who strongly agreed that trees were important to their quality of life and those who did not strongly agree, it is important to re-emphasize that for each category within each demographic characteristic, people overwhelmingly strongly agreed that trees were important to their quality of life. For example, those who did not strongly agree that trees were important were more likely than expected to be young or to be African American, yet 70% of all young respondents and 66% of African Americans strongly agreed that trees were important to their quality of life.

Table 3. Demographics of urban residents who strongly agree that trees are important to their quality of life compared to those who do not strongly agree.

	Strongly agree that trees are important to quality of life		Don't strongly agree that trees are important to quality of life	
Demographic characteristic	Number	%	Number	%
*Gender***				
Male	705	80.9	167	19.1
Female	961	85.0	169	15.0
*Age****				
18–21	80	69.6	35	30.4
22–30	235	79.4	61	20.6
31–40	392	83.6	77	16.4
41–55	528	85.3	91	14.7
Over 55	405	86.0	66	14.0
*Educational attainment**				
High school or less	448	79.3	117	20.7
2-year degree or less	511	83.1	104	16.9
4-year degree	382	84.9	68	15.1
Some graduate school or more	316	87.5	45	12.5
*Income (U.S. dollars)***				
$20,000 or less	277	75.3	91	24.7
More than $20,000 up to $30,000	254	83.0	52	17.0
More than $30,000 up to $50,000	419	84.7	76	15.4
More than $50,000 up to $75,000	268	87.0	40	13.0
More than $75,000	235	84.8	42	15.2
*Ethnic background****				
African American/Black	115	66.1	59	33.9
Asian American/Pacific Islander	30	69.8	13	30.2
Hispanic/Latino	84	83.2	17	16.8
Multi-ethnic	43	79.6	11	20.4
Native American	43	86.0	7	14.0
White/European	1278	85.8	211	14.2
*Childhood community****				
In the city	532	79.1	141	20.9
In the suburbs	561	85.9	92	14.1
On a farm	250	90.3	27	9.7
Outside the city and suburbs	310	80.9	73	19.1

*, **, *** $P \leq 0.05$, 0.01, or 0.001, respectively, based on a chi-square statistic.

Reasons to Have Trees in Urban Areas—Based on Attitude Toward Trees and Quality of Life

The reasons to have trees in cities were ranked nearly identically by respondents, regardless of their opinions about the importance of trees to their quality of life (Table 4). For people who strongly agreed that trees were important to their quality of life and people who did not strongly agree, the value of trees in shading and cooling ranked as the top reason to utilize them in urban areas, and the next highest ranked reasons were "… help people feel calmer" and "… reduce smog and dust."

The ability of trees to "... make interesting sounds as their leaves rustle" and "… attract wildlife" were ranked as the least important reasons to have them in cities by all respondents. The means for these two reasons were not significantly different from each other for either group.

While people who strongly agreed that trees were important to their quality of life and people who did not strongly agree ranked the reasons for using trees similarly, they did not rate the reasons similarly (Table 4). People who strongly agreed that trees were important to their quality of life consistently rated the statements about tree use significantly higher than did people who considered trees less important to their quality of life (Table 4). For those who strongly agreed that trees were important, each reason to use trees received a mean of at least 3.0 (agree). Responses for people who considered trees less important to their quality of life ranged from a low of 2.5 (neutral) to a high of 3.4 (between agree and strongly agree). Opinions among these respondents also were more inconsistent, as indicated by the larger margins of error.

Problems with Trees in Urban Areas—Based on Attitude Toward Trees and Quality of Life

Respondents in both groups also ranked the problems with trees in cities very similarly (Table 5). For those who strongly agreed that trees were important to their quality of life and those who did not strongly agree, the potential problems of trees in causing allergies and blocking store signs were ranked as the top two problems. The rankings of all of the problems were identical, except for the two lowest-ranked problems, where the rankings were reversed. Respondents considered "… are ugly when they are not maintained" and "… cost the city too much" to be the least important reasons not to have trees in cities. The means for these two lowest-ranked statements were not significantly different from each other for either group.

Respondents who strongly agreed that trees were important to their quality of life did not agree with these stated problems with trees, indicating that they generally did not consider them to be reasons not to use trees (Table 5). On the four-point scale, the means for all of these state-

Table 4. Reasons to have trees in cities, ranked by level of agreement with each statement, for urban residents who strongly agree that trees are important to their quality of life compared to those who do not strongly agree.

	Strongly agree that trees are important to quality of life (n = 1,667)		Don't strongly agree that trees are important to quality of life (n = 336)	
Reasons to have trees	Rank[z]	Level of agreement[y]	Rank[z]	Level of agreement[y]
Trees are important in downtown areas because they shade and cool their surroundings	1	3.74 ± 0.03	1	3.44 ± 0.07
Trees in cities help people feel calmer	2	3.64 ± 0.03	2	3.11 ± 0.09
Trees should be planted in business districts to reduce smog and dust	3	3.59 ± 0.03	3	3.00 ± 0.09
Trees should be used in cities because they reduce noise	4	3.45 ± 0.04	4	2.92 ± 0.09
Trees in shopping areas make people think the stores care about the environment	5	3.27 ± 0.04	5	2.73 ± 0.10
Trees should be used in cities because they make interesting sounds as their leaves rustle	6	3.06 ± 0.04	7	2.50 ± 0.10
Trees should be planted in cities to attract wildlife	7	3.01 ± 0.05	6	2.53 ± 0.11

[z]Ranking based on the order of the means.
[y]Mean ± margin of error, based on a 95% confidence interval. Means are based on a scale from 1 (strongly disagree) to 4 (strongly agree).

ments were less than 2.0, indicating responses between strongly disagree and disagree, and the means for all except one statement were closer to strongly disagree than to disagree.

Respondents who did not strongly agree that trees were important to their quality of life also did not strongly agree or even agree with any of the eight reasons not to have trees, but they did not disagree with the statements as strongly as did those who strongly agreed that trees were important (Table 5). Their responses were all closer to disagree than to strongly disagree. Their responses were also more variable, as indicated by their margins of error.

SUMMARY

Most people surveyed clearly appreciated the value of trees in their lives. Those few people who placed less value on trees were more likely to have one or more of these characteristics: male, young, poorly educated, or with low income. They were also more likely to be African American or Asian American and to have been raised in a city. While there were demographic differences between people who strongly appreciated the value of trees and people who less strongly appreciated them, there were no meaningful differences in what these two groups of people felt were the important reasons to use trees or in what they felt were the biggest problems with trees. Both groups agreed or strongly agreed with almost all of the reasons for using trees, and both groups disagreed or strongly disagreed with all of the statements about the problems with trees.

People in large metropolitan areas across the United States appreciated a wide range of reasons for planting trees in cities, including environmental (to reduce smog), social (to calm people), and esoteric (to make interesting sounds) reasons. The highest-ranked reason for using trees was for shade and cooling. The next most important was for their calming effect. Using trees to reduce dust, smog, and noise were also considered quite important. The rankings could be used by people planning campaigns to promote citizen acceptance of urban tree programs by focusing on these more highly rated values.

Table 5. Problems with trees in cities, ranked by level of agreement with each statement, for urban residents who strongly agree that trees are important to their quality of life compared to those who do not strongly agree.

	Strongly agree that trees are important to quality of life (n = 1,667)		Don't strongly agree that trees are important to to quality of life (n = 336)	
Problems with trees	Rank[z]	Level of agreement[y]	Rank[z]	Level of agreement[y]
Trees are a problem in cities because they cause allergies	1	1.58 ± 0.04	1	1.91 ± 0.09
Trees should not be used in business districts because they block store signs	2	1.52 ± 0.04	2	1.83 ± 0.08
Trees should not be planted because their roots crack sidewalks	3	1.44 ± 0.04	3	1.75 ± 0.09
Trees should be removed from cities because they can fall across power lines	4	1.39 ± 0.04	4	1.69 ± 0.08
Trees should not be used in cities because they make it difficult to detect criminal behavior	5	1.38 ± 0.03	5	1.67 ± 0.08
Trees should not be planted along streets because they drip sap or sticky residue on parked cars	6	1.37 ± 0.03	6	1.65 ± 0.09
Trees should not be planted in cities because they are ugly when they are not maintained	7	1.27 ± 0.03	8	1.57 ± 0.08
Trees should not be planted in cities because they cost the city too much	8	1.24 ± 0.03	7	1.60 ± 0.08

[z] Ranking based on the order of the means.
[y] Mean ± margin of error, based on a 95% confidence interval. Means are based on a scale from 1 (strongly disagree) to 4 (strongly agree).

People in metropolitan areas also recognized that there are problems associated with trees, but they generally considered these problems to be inconsequential; the problems are insufficient to justify not using trees in urban areas. The highest-ranked problems were causing allergies, blocking store signs, and cracking sidewalks. The least important problem was their cost to cities. Thus, people promoting tree programs should not focus their efforts on showing that the costs of a particular program are low; resources would be better used to consider tree placement, so that they do not obstruct signs and crack sidewalks, and to select trees that are generally nonallergenic, for example.

The results from this survey represent the viewpoints of adults living in the large metropolitan areas across the United States. Careful sampling techniques were used to obtain a broad representation of the people living in these areas. The viewpoints of other groups, such as people in small communities, people outside the United States, or people in volunteer tree programs, cannot be known from this study; these could be fruitful areas for follow-up surveys.

CONCLUSION

Dwyer, Nowak, and Watson (2002), in discussing the future needs for urban forestry research in the United States, pointed out the need for collaboration among disparate groups, including forest resource owners, public agencies, private firms, and not-for-profit groups, "… to meet common goals." The results from this study point out that most people, not just those with particular reasons to be involved with urban trees, hold common positive values toward trees in cities. Even those few people who did not profess strong interests in trees understand their importance in cities. This knowledge should help foster needed collaboration among groups by showing people that there is a great deal of common ground.

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Acknowledgments. Financial support for this project was provided by the USDA Forest Service Urban and Community Forestry Program on the recommendation of the National Urban and Community Forestry Advisory Council. The authors express appreciation to J. Richard Alldredge, Professor in Statistics, Washington State University, for statistical support. This research protocol was reviewed and approved by the WSU Human Subjects Institutional Review Board.

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Résumé. Des résidants des plus importantes communautés métropolitaines dans la zone continentale des États-Unis ont été sondés en regard des bénéfices et des problèmes des arbres en milieu urbain. Le public a classé les bénéfices sociaux, environnementaux et pratiques des arbres à un niveau très élevé. La capacité des arbres à ombrager et refroidir le climat des quartiers a été le bénéfice classé au rang le plus élevé. Le potentiel des arbres à créer un climat plus serein pour les gens s'est classé au second rang. Les problèmes potentiels reliés aux arbres n'ont pas été considérés comme des motifs suffisants pour ne pas employer des arbres. Des problèmes pratiques tels que les causes allergènes étaient d'un plus grand intérêt que les questions financières. Les gens qui étaient fermement d'accord avec le fait que les arbres étaient importants pour leur qualité de vie rangeaient les bénéfices des arbres en plus haute importance que les gens qui n'étaient pas fermement d'accord. Les gens qui étaient fermement d'accord ainsi que ceux qui ne l'étaient pas rangeaient les bénéfices et les problèmes de manière similaire. Les réponses variaient légèrement en fonction des facteurs démographiques. Par exemple, les gens qui n'étaient pas fermement d'accord avec l'affirmation que les arbres étaient importants pour la qualité de vie étaient ceux, de manière plus élevé que ce qui était anticipé, du groupe 18-21 d'âge ou encore ceux qui gagnaient moins de 20000$ par année. Le public en général dans les zones urbaines, pas seulement ceux qui se portent volontaire pour les programmes reliés aux arbres, sont très positifs envers les arbres dans les villes.

Zusammenfassung. Die Einwohner der größten Metropolen in den Vereinigten Staaten wurden über die Vorteile und Probleme von Straßenbäumen in ihrer Nachbarschaft befragt. Die Öffentlichkeit bewertete soziale, ökologische und praktische Vorteile von Bäumen als hoch. Die Eigenschaft von Bäumen Schatten zu spenden, wurde am höchsten bewertet. Das Potential, Menschen zu helfen, ruhiger zu werden, stand als zweithöchster Vorteil. Potentielle Probleme durch Bäume wurden nicht als Grund erwogen, keine Bäume zu pflanzen. Praktische Probleme, wie z.B. Allergieverursachung, produzierte mehr Betroffenheit als finanzielle Aspekte. Menschen mit großer Zustimmung, dass Bäume ihre Lebensqualität verbessern, bewerteten die Vorteile höher als andere. Menschen mit großer Zustimmung und weiniger starker Zustimmung, dass Bäume ihre Lebensqualität verbessern, bewerteten die Probleme und Vorteile gleich. Zum Beispiel die Menschen mir weiniger Zustimmung waren wider Erwarten mehr in der Altersklassen von 18-21 Jahren angesiedelt oder mit einem Einkommen von weniger als $20.000 pro Jahr ausgestattet. Die allgemeine Öffentlichkeit in Stadtgebieten, nicht nur die Freiwilligen von Baumpflanzprogrammen, war positiv gegenüber Bäumen in der Stadt eingestellt.

Resumen. Residentes de grandes áreas metropolitanas en los Estados Unidos fueron encuestados acerca de los beneficios y molestias de los árboles en áreas urbanas. El público señalo significativamente los beneficios sociales, ambientales y prácticos de los árboles. La capacidad de los árboles para sombrear y refrescar los alrededores fue un beneficio altamente estimado. Su potencial para ayudar a la gente a tranquilizarse se colocó en segundo lugar. Los problemas potenciales con los árboles no fueron considerados razones para no utilizarlos. Las molestias prácticas, tales como causantes de alergias, fueron de las mayores preocupaciones. La gente que estuvo fuertemente de acuerdo con los árboles los relacionó con su calidad de vida más que quienes no estuvieron de acuerdo. Tanto los que están de acuerdo como los que están en desacuerdo señalaron similarmente los beneficios y molestias de los árboles. Las respuestas variaron levemente con base en factores demográficos. Por ejemplo, aquellos que no estuvieron fuertemente de acuerdo en que los árboles son importantes en su calidad de vida están entre los 18-21 años de edad y ganan $20,000 o menos dólares por año. El público en general en áreas urbanas, no exactamente la gente que voluntariamente trabaja en programas de arbolado, tiene sentimientos muy positivos hacia los árboles en las ciudades.