

PUBLIC ATTITUDES TOWARD A MUNICIPAL FORESTRY PROGRAM

by Herbert Schroeder and Paul Appelt¹

Abstract. A midwestern community was surveyed to assess satisfaction with quantity, quality, and maintenance of street trees; importance of services provided by its forestry department; and possible sources of public dissatisfaction.

Public administrators and policymakers constantly face tough choices of how best to allocate finite resources to satisfy often conflicting demands. Municipal forestry programs indeed must compete with other programs for necessary resources. City managers, budget directors, and elected officials, who are responsible for program funding, are often forced to allocate available resources without the benefit of reliable, quantitative information about public support for various programs. A public survey can help to document the importance of trees to the public and the level of public support for forestry programs.

A carefully designed survey can be used to assess how a municipal forestry program is perceived by the public. Lack of mutual understanding between a forestry department and the public can be detected, and specific problems that may require special attention can be highlighted. In the absence of systematically gathered information on public attitudes, primary feedback from residents may be in the form of calls from people with problems or complaints. The actual extent of awareness and satisfaction with forestry services may remain unknown.

In this article we present the results of a survey that was used to assess public attitudes toward forestry programs and services in a midwestern community. This survey shows how information on public attitudes can be obtained. In addition, the results of the survey suggest some factors that may give rise to dissatisfaction among some members of the public.

The Survey

The survey was designed to fill both sides of a single sheet of paper. The major areas of information sought were the residents' satisfaction with the quantity and quality of trees in their neighborhood, the importance of a variety of services provided by the forestry department, the adequacy of tree maintenance and response to public inquiries, and sources of awareness about the forestry program. The forms contained both closed-format and open-ended questions. The closed-format questions (i.e., yes/no responses and rating scales) allowed for quick responses and easy coding of data, while the open-ended questions allowed the respondents to follow up in more detail on their answers to the closed-format questions. Although they are more difficult to tabulate and analyze, open-ended questions often provide valuable insights into the public's viewpoint.

The survey form, a cover letter, and a postage-paid reply envelope were mailed to 593 single family residences in February 1983. The addresses were selected from water billing system accounts, which were listed alphabetically by street name. A survey was sent to every 10th residence on the list. In all, 191 surveys were returned, for a response rate of 32 percent.

Results

In this article we will focus primarily on responses to the closed-format questions. Summaries of responses are found in Tables 1 and 2. All but one of the respondents considered parkway trees to be an asset to the community (Table 1). The majority of people were satisfied with quantity and quality of trees, and felt that the village provided adequate maintenance of parkway trees. Of those people who had inquired about tree problems in the last year, a little over

1. Mr. Appelt is Village Forester of Downers Grove, Illinois.

half were satisfied with how the forestry department had responded to their inquiries. Analysis of written comments indicated that the most common source of dissatisfaction was denial of a request that was beyond the scope of the program.

The survey revealed a fairly high level of awareness (58%) of the forestry department's services and programs. Respondents said that the most common sources of information about the department's programs were news articles and a column in the local newspaper. Some other sources included village crews, word of mouth, and contact with the village forester.

Most forestry department services were rated as important or very important by most respondents (Table 2). Only watering was considered unimportant by a majority of people. Services rated most important were removal of hazardous trees, gypsy moth control, Dutch elm disease control, and tree planting.

Although the survey showed a generally high level of satisfaction with quantity, quality, and maintenance of parkway trees, we felt it was important to try to understand what factors might be related to dissatisfaction with one or more of these items. To learn more about these responses, we did several further analyses.

Contact with the forestry department concerning a problem or request appears to be related to the person's feelings about the adequacy of tree maintenance (Table 3). Of the people who had not made inquiries, 85 percent felt maintenance was adequate. For those who made inquiries and were satisfied with the response, all but one (96%) felt maintenance was adequate. But for those who were not satisfied with the response, only 67 percent thought maintenance was adequate. Although this is still a majority, it does appear that failure to get desired results on a specific request may cause some people to conclude that the forestry program provides inadequate maintenance in their neighborhood.

We also found evidence that satisfaction with maintenance is related to the importance people attach to certain tree care services. First, we used factor analysis to classify survey items into a smaller number of categories based on how people rated them. Factor analysis places two items in the same category if people responded to

them similarly. That is, if we know how a person rated an item in one of the categories, we would expect that he or she would rate other items in the same category in about the same way. This may mean that people see the items in one category as being similar or related in some way.

Table 1. Responses to survey items.

Question	Percent answering "yes"
Do you consider parkway trees to be an asset to the community?	99
Are you satisfied with the quantity of parkway trees in your neighborhood?	71
Are you satisfied with the quality of the parkway trees in your neighborhood?	72
Do you feel that the village provides adequate maintenance of parkway trees in your neighborhood?	84
Have you called the forestry department with an inquiry about public or private tree problems or services within the last year?	24
If "yes", were you satisfied with the response to your request?	13
Were you aware of the forestry department services and programs prior to receiving this mailing?	58

Table 2. Means and standard deviations of importance ratings for forestry department services.

Service	Mean*	S.D.
Removal of dead/hazardous trees	1.7	.5
Gypsy moth control	1.6	.6
Dutch elm disease control	1.5	.7
Planting parkway trees	1.5	.7
Other insect control	1.3	.8
Trimming parkway trees	1.1	.9
Repair to damaged trees	1.1	.9
Consultation with homeowners regarding tree problems on public or private property	1.0	.9
Cabling/bracing weak limbs	0.5	1.2
Fertilization of parkway trees	0.2	1.2
Watering parkway trees	-0.4	1.2

* 2 = very important; 1 = important; 0 = don't know; -1 = not very important; -2 = worthless

The analysis of our data produced one category containing the "basic" tree services of trimming, planting, and removal; another category containing Dutch elm disease, gypsy moth, and other insect control; and a third category containing the other services, which might be considered "optional" tree care.

All survey respondents tended to give high ratings to the importance of basic tree services and insect control. But the analysis also showed that people varied in how they rated the importance of optional tree care services. Next, in comparing the ratings given to the optional services, we found that people who felt maintenance was inadequate attached significantly higher importance to these optional services than those who felt maintenance was adequate ($p < .05$ in an analysis of variance). This suggests that dissatisfaction with maintenance may arise among people who place importance on a wider range of tree services and therefore have higher expectations of the forestry department program.

We also wanted to find out whether people's satisfaction with trees and the forestry program is influenced by the character of the neighborhood where they live. For each distinct section of the village, the village forester estimated the age of the neighborhood, the tree density (low, medium, or high), and the average parkway tree size. Each survey form was coded as to which of these sections the address was in. We found several significant relationships between neighborhood characteristics and the survey responses.

People from neighborhoods 11-40 years old were more likely to be satisfied with quantity of trees than were people from areas newer or older than that (Table 4). This might be because trees in newer neighborhoods are too small to create an impression of substantial tree cover, while in older neighborhoods removal of large trees over recent years may cause residents to feel that the number of trees is inadequate compared to what they remember from earlier years. This suggests that satisfaction with quantity is not simply a function of the number of trees on the street. In fact, there was no significant relation between satisfaction with quantity and the forester's estimate of the number of trees in the neighborhood. Public satisfaction with tree quantity may depend on the

type and size of trees and on changes in the tree population over a period of years.

With respect to tree size, people from neighborhoods with large (13" diameter or greater) trees were most likely to feel that maintenance was adequate, and people from areas where 7-12" trees predominated were least likely to feel maintenance was adequate (Table 5). Dissatisfaction with maintenance may be related to several years of delay in pruning trees in some sections of the community. Many trees obviously needed pruning because low limbs were beginning to obstruct traffic. Also, when trees were actually pruned in some of these

Table 3. Crosstabulation of maintenance adequacy with inquiry (column percents are in parentheses).

		Made no inquiry	Satisfied with response	
			yes	no
Maintenance adequate	yes	123 (85%)	24 (96%)	14 (67%)
	no	22 (15%)	1 (4%)	7 (33%)

Chi square = 7.54 (p = .023)

Table 4. Crosstabulation of quantity satisfaction with neighborhood age (column percents are in parentheses).

		Neighborhood age		
		under 11 yrs.	11-40 yrs.	over 40 yrs.
Satisfied with quantity	yes	9 (50%)	51 (82%)	76 (68%)
	no	9 (50%)	11 (18%)	35 (32%)

Chi square = 8.05 (p = .018)

Table 5. Crosstabulation of maintenance adequacy with average parkway tree size (column percents are in parentheses).

		Tree Size (dbh)		
		2-6"	7-12"	over 12"
Maintenance adequate	yes	23 (82%)	35 (71%)	102 (91%)
	no	5 (18%)	14 (29%)	10 (9%)

Chi square = 10.29 (p = .006)

areas, larger limbs were removed than would have been necessary had the trees been pruned two or three years earlier. To some residents such pruning probably seemed too severe.

Discussion

The results of this survey can be useful in several ways. First, they provide the forestry department with an idea of the public's general attitude toward trees and the forestry program. The results show that the majority of those surveyed felt that trees are important, were satisfied with quantity and quality of trees, and felt that maintenance was adequate.

The survey also provides information on the importance people place on various tree care services. While high priority was placed on the basic services, such as planting and removal, virtually all the services were rated as important. This information could be used to argue against budget cuts that would force the forestry department to curtail some of its services. This is particularly the case with insect control programs. Gypsy moth and Dutch elm disease, respectively, ranked second and third in importance, higher even than planting and surpassed only by removal of hazardous trees.

The survey results are also useful in suggesting some possible sources of dissatisfaction among the public. It appears that some people expect more of the forestry program, placing greater importance on "optional" tree care services, and that these people are more likely to feel that existing maintenance programs are inadequate. Public information efforts might be useful to explain how priorities are set in allocating scarce

resources. The survey indicates that the local newspaper is the best means currently used to communicate with the public about the forestry program. However, only 44 percent of the sample were aware of the forestry program through articles or columns in the local newspaper. This suggests that the forestry department should look for more effective ways to communicate their programs to the public.

It also appears that when the forestry department does not carry out a resident's request for a tree care service, the resident may conclude that the department provides inadequate maintenance. Again, careful explanation of why some services must receive low priority or are beyond the scope of the forestry program may help to keep the support of people whose individual requests must be turned down.

Finally, by noting which kinds of neighborhoods are more dissatisfied with some aspects of the forestry program, the forester may be able to revise the program in those neighborhoods. For example, dissatisfaction with maintenance in neighborhoods with 7-12" dbh trees suggests that maintenance programs in those areas should be scrutinized.

It may be impossible to eliminate all dissatisfaction with a forestry program. However, information obtained from a survey such as this can serve as a basis for public information activities and program revisions that could minimize complaints and improve support for forestry activities.

*U.S. Forest Service
North Central Forest Expt. Station
Chicago, Illinois*