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The Role of Assistance Foresters in Nonindustrial Private Forest Management: Alabama Landowners' Perspectives

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ABSTRACT. *Nonindustrial private forest landowners in Alabama were surveyed and assistance foresters' involvement in their management activities documented. Overall, assistance foresters have participated in some 58% of all forest management activities. Consulting foresters account for 45 to 50% of those activities involving assistance foresters. Public foresters have more small and low income landowners as their clients, and consulting and industry foresters assist more medium and large landowners. The perception of all assistance foresters by the landowners is positive, and reputation is a key to acquire new clients. Respondents also believe that the number of public foresters should stay roughly the same or be increased, and they are evenly divided about paying a fee for services provided by public foresters. South. J. Appl. For. 22(2):101-105.*

About 59% of the commercial timberland in the United States and 70% of the timberland in the South are owned by nonindustrial private forest (NIPF) landowners. These landowners have always been significant contributors to timber supply and forest management. As timber supplies from public forests in the Pacific Northwest decline, NIPF landowners in the South will assume an even larger role in timber supply.

Many NIPF landowners lack expertise in forest management and timber marketing, and are unfamiliar with current market prices and practices (Munn and Rucker 1994). When NIPF landowners lack expertise, experience, and information, then services from public and private assistance foresters are essential for efficient markets and broad participation in forest management. Assistance foresters include three groups: public foresters who work for county, state, or federal agencies and whose services are provided without charge; consulting foresters who run their own forestry consulting business and who charge a fee for services; and industry foresters who work for forest industry firms and provide services to NIPF landowners on behalf of the firms. Assis-

tance foresters' services cover all aspects of forestry, including management plan preparation, timber harvesting, marketing, reforestation, timber stand improvement, and wildlife management. Assistance foresters influence not only the benefits obtained from timber sales and forest management for NIPF landowners, but also the long-term health and productivity of forestlands, which are important to the general public.

Previous studies of assistance foresters indicate the extent of this influence. In Georgia, for example, an assistance forester affects on average some 6,000 ac of forestlands per year (Cabbage and Hodges 1986). A survey by the Association of Consulting Foresters of America, Inc. (1994) finds that its members and their firms impacted some 25 million ac of NIPF lands in 1993. Field (1986) documents the profiles, clientele, and achievement of assistance foresters at the national level. Hodges and Cabbage (1990) provide information on assistance activities of the three groups of foresters. Munn and Rucker (1994) estimate that on average the increased sale prices received by NIPF landowners roughly equal the fees consultants have charged for their services.

Little detailed research has been conducted on landowners' perceptions of the quality and distribution of services provided by assistance foresters. There is also the question of why there should be free public assistance if private assistance is available (McColly 1996). This article presents the

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results of a mail survey of NIPF landowners in Alabama on the role of assistance foresters in NIPF management and marketing and on the quality and distribution of services. It reveals a mixed (both complementary and substitutional) relationship among the three groups of assistance foresters. It also addresses landowners' perceptions of the services from each group, and the acceptability of charging a fee for services provided by public foresters.

Methods

The mail survey was designed according to the total design method (Dillman 1978) and was conducted in Spring 1996. It contained 47 questions, focusing on profiles and perceptions of assistance foresters' services, distribution and quality of services, and landowners' characteristics. The sampling procedure was designed to achieve a representative and unbiased sample of NIPF landowners in Alabama.

The sample was compiled in two steps. First, seven counties—Autauga, Barbour, Dale, Etowah, Hale, Lawrence, Monroe, and Shelby—were randomly selected from the 67 counties in Alabama. Although this was a completely random selection, these counties represent a range of physiographic regions (Appalachian, Piedmont, and Coastal Plain) and of forest conditions in southeast, north, and southwest Alabama, as described by Vissage and Miller (1991). Second, names and addresses of all forest landowners in these counties were collected from individual county tax assessors. All known forest industry landowners and nonforest industry corporate ownerships were then deleted and some 10,560 NIPF landowners remained. The final mailing list comprised 650 randomly selected NIPF landowners, representing a sample of 1 out of 16 NIPF landowners in each county.

The final survey sample had 616 NIPF landowners as 34 surveys (5%) were returned unopened. Two hundred and seventy-one of the surveys were completed and returned, representing a response rate of 44%. A followup telephone survey of a 10% randomly selected sample of the nonrespondents reveals that nonrespondents are not correlated to the size of ownership, income, education, age, and county origins. The overall estimated error for the survey results is plus or minus 3.5% at the 95% confidence level. The results reported here are likely to be generally representative of those prevailing throughout Alabama, and may have implications in other states as well.

Landowner Characteristics

One-third (32%) of the landowners surveyed have less than 51 ac of forest lands, 17% have 51 to 100 ac, 35% have 101 to 500 ac, and 18% have more than 500 ac (Figure 1). A majority (57%) spend 10 days (full-day or equivalents) or less, 28% spend 10 days to 1 month, and the rest spend more than 1 month annually in forest management. Forty-five percent have annual household income of less than \$50,001, one-third (34%) have incomes of \$50,001 to \$100,000, and the rest earn more than \$100,000. Most landowners (82%) earn less than 10% of their annual household income from their forests, and 93% have a high school or higher education.

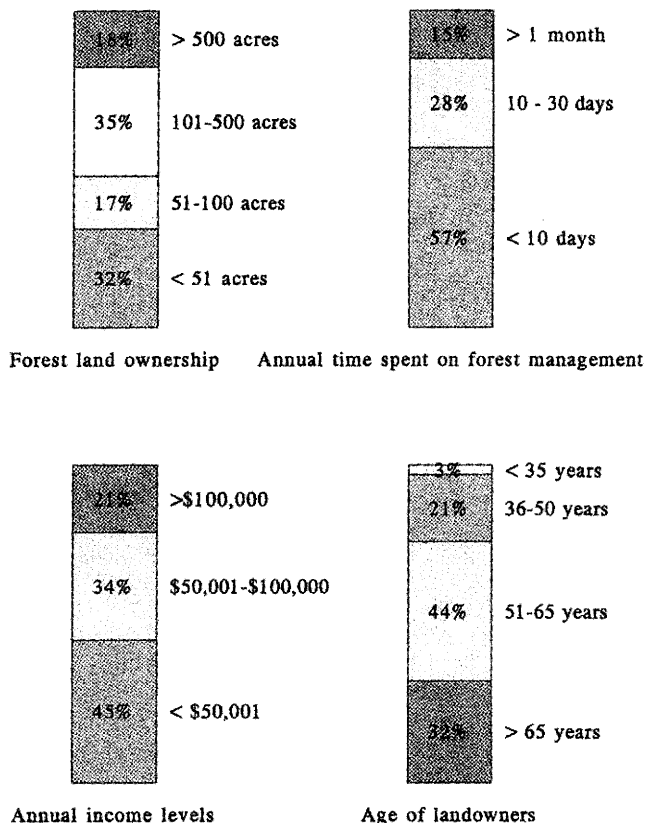


Figure 1. Characteristics of landowners responding to mail questionnaire concerning the role of assistance foresters ($n = 267$).

However, 80% have neither formal nor informal forestry training, and 10% only occasionally go to forest landowner meetings or attend forestry continuing education programs. The remaining 10% of landowners have at least 1 month of formal or informal forestry education.

Most landowners (84%) surveyed identified themselves as nonfarmers. Few of them (3%) are younger than 35. Twenty-one percent are between age 36 and 50, 44% are between age 51 and 65, and 32% are more than 65. Their average length of forest land ownership is 23 yr. They live close to their forests. Fifty percent of them reside on or within 10 miles of their forestlands, and another 22% live within 50 miles. Minority landowners represent 6% of all landowners surveyed. Although not directly comparable, these characteristics are similar to those described in Birch (1996), indicating that the sample of this study is representative of NIPF landowners in Alabama.

Results

Management Activities

Table 1 describes all major forest management activities conducted by forest landowners in the last 10 yr. Overall, 65% of the landowners have cut timber from their lands, either for themselves or for sale. Sixty-four percent of them have sold timber, and 50% of them have planted trees. Only 15% of landowners have sprayed pine forests to control weeds, undesirable species, insects, or diseases. Twenty-two percent of them have intentionally burned

Table 1. Forest management activities conducted by NIPF landowners in Alabama and the involvement of assistance foresters: 1986–1995

	Total no. of respondents ¹	Engaged in practice	Assistance foresters provided services			
			No.	Public	Consulting	Industry
Timber harvesting	267	172	98	25.2	47.8	27.0
Timber marketing	262	168	90	18.2	53.8	28.0
Tree planting	266	133	86	35.1	41.5	23.4
Spraying	257	38	29	26.5	50.0	23.5
Burning	261	58	44	36.4	50.0	13.6
Management plan development	261	72	60	29.2	47.7	23.1
Wildlife habitat improvement	260	131	41	41.7	41.7	16.6

¹ A total of 271 questionnaires were returned. If a respondent did not answer a given question, his or her response was not counted in the numbers presented in this table. For example, 267 respondents answered "yes" or "no" to the question concerning timber harvesting; four respondents left this question blank and thus were not counted in the analysis of timber harvesting activity.

their forest for management purposes, and 27% have developed a forest management plan. Finally, 50% of the landowners have improved wildlife habitats on their lands, and 33% have performed other kinds of forest management such as site preparation, marking property boundaries, and establishing recreational facilities.

Although NIPF landowners surveyed have generated less than 10% of the annual household income from their forests, these results indicate that they are still fairly active in managing them. Since some might have undertaken any one of these activities more than once in the last 10 yr, these results are conservative estimates of the total number of management activities performed by these landowners. Only 17% of the respondents have not conducted any management activities in the last 10 yr.

The Role of Assistance Foresters

Table 1 also provides a summary of the role of the three groups of assistance foresters in helping conduct these management activities. Of the landowners who engaged in these activities, 57% of the landowners have used assistance foresters in timber harvesting, 54% in timber marketing, 65% in tree planting, 76% in spraying, 76% in burning, 83% in preparing forest management plans, and 31% in improving wildlife habitats. The overall participation rate of assistance foresters in all management activities is 58%. It is obvious that the assistance foresters have played a significant role in NIPF management.

The three groups of foresters have participated in all kinds of forest management activities. However, their roles vary. Consulting foresters have played the largest role in all management activities. Of the activities in which assistance foresters are involved, consulting foresters have participated in 48% of timber harvesting, 54% of timber marketing, 42% of tree planting, 50% of spraying and burning, 47% of management plan development, and 42% of wildlife habitat improvement. Industry foresters are second in timber harvesting (27%) and marketing (28%). Public foresters are ranked second in tree planting (35%), spraying (27%), burning (36%), management plan development (29%), and share first position with consulting foresters in wildlife habitat improvement (42%) (Table 1). These results indicate consulting foresters are by far the most active of the three groups of assistance foresters. However, public and industry foresters have played an

important role as well. It is noticeable that many NIPF landowners have not used assistance foresters, and some 15 respondents (half of whom are absentee landowners) indicated that they have not even heard of these services. Thus, reaching these landowners is important for each group of assistance foresters to expand their services.

Distribution of Clientele

The distribution of assistance foresters' clients among NIPF landowners who are different in size of ownership and income is a concern that has public policy implications. Figure 2 shows the relationship between size of holding and use of assistance foresters in all management activities. Public foresters have more clients in small landowner groups (less than 51 ac) than consulting and industry foresters. Specifically, nearly half (48%) of the small landowners used public foresters; consulting and industry foresters provided services to 33% and 19% of landowners in this group. On the other hand, 53% of landowners who have 51 to 100 ac of forestlands used industry foresters, 19% and 28% of them used public and consulting foresters, respectively. Consulting foresters were the primary source of assistance for landowners in both the 101–500 and the over 500 ac categories, accounting for 46% and 43%, respectively.

Figure 3 shows the relationship between landowner income and use of assistance foresters. Public foresters served 37% of landowners who have less than \$50,001 annual income. Consulting foresters and industry foresters provided services to 40 and 33% of landowners in this

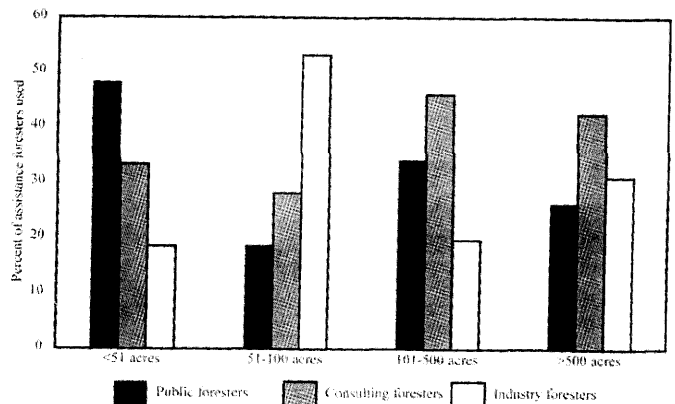


Figure 2. Type of assistance foresters used, by size of holding.

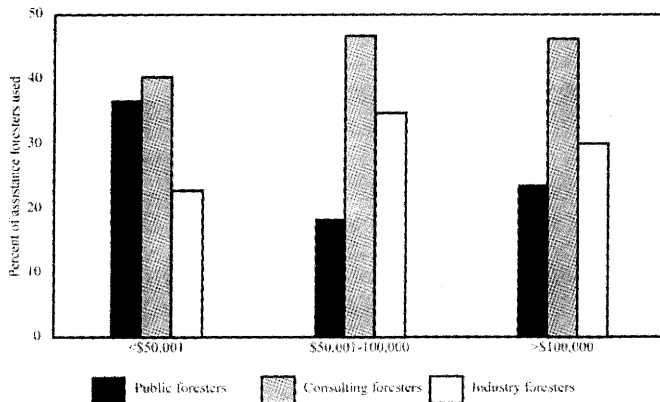


Figure 3. Type of assistance foresters used, by income.

group. Landowners who have annual incomes of \$50,001 to \$100,000 and more than \$100,000 used more consulting and industry foresters than public foresters.

These results suggest that public foresters have more clients in the group of landowners who have smaller acreage and lower incomes. While industry assistance is often free, economies of scale might also make industry foresters focus on medium and large landowners. Consulting foresters assist large and wealthy landowners more than public and industry foresters. However, public foresters also provide substantial services to owners of holdings over 500 ac and whose incomes are over \$100,000.

Perceptions of Assistance Foresters' Services

To reveal the perceptions and reactions of NIPF landowners to the services provided by assistance foresters, we asked them to rate each of the services they received from each group of foresters into four categories: poor, fair, good, and excellent. Figure 4 shows the results for the overall ratings of each group of foresters in all management activities. Generally speaking, landowners have a favorable impression of all three groups: "excellent" and "good" appear in more than 75% in the overall rating for every group. Though not reported here, detailed ratings in individual management activities show similar results.

Request for Services

Understanding the mechanisms of first contact between landowners and assistance foresters is useful for assistance foresters to expand their services. Landowners were asked to

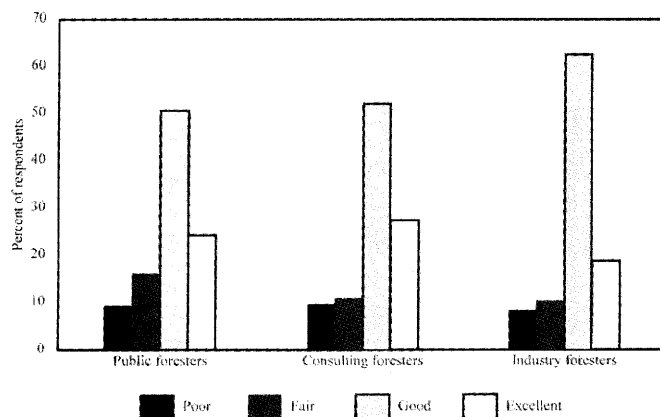


Figure 4. The overall rating of assistance foresters' services by NIPF landowners.

indicate from whom (or what) they heard about the particular assistance forester they initially contacted and requested services. Thirty-seven percent of them heard about the particular foresters from another landowner, and 18% from a friend other than a landowner. Telephone directories, landowner conferences, and advertisements in magazines, newsletters, or newspapers account for another 15%. The other sources were other foresters, lawyers, and federal, state, and county agents. These results suggest that reputation and networking are important in order for assistance foresters to find and retain clients and to expand their clientele.

When asked to indicate if they had ever been denied services from assistance foresters, only 4.8% indicated denial from public foresters, 6% from consulting foresters, and 5.9% from industry foresters. The primary reasons for denial of services were that the forester did not have enough time and staff or that the acreage was too small. These data indicate that most landowners are able to obtain services from assistance foresters when needed.

Public Foresters

Finally, the landowners were asked to give their opinions on two questions related to public forester assistance. When asked whether the number of public foresters should be increased, decreased, or stay roughly the same, 33% of the 210 respondents replied "stay roughly the same," 42% "have no opinion," 21% indicated "be increased." Only 5% responded "be decreased." Since currently services from Alabama's public foresters are free, the respondents were asked how much they might be willing to pay if public foresters charged for their services. Fifty percent of the 163 respondents chose "nothing." Another 45% were willing to pay \$20, \$50, or \$100 for a day (the responding rates for these three choices are about 15% each). Only 5% of landowners would be willing to pay more than \$100 a day.

These results indicate that NIPF landowners do not support a decrease in the number of public foresters in Alabama. On the question of "willingness-to-pay" if public foresters were to charge, the landowner responses are divided nearly equally between those who are willing and those who are not. Several landowners commented that they should not pay for services provided by public foresters because they have already paid taxes. Others mentioned that they would want to know what services public foresters provided to them before offering any payment. Still others commented that landowners should pay for services provided by public foresters.

Conclusions and Discussion

The results show that all three groups of assistance foresters make a significant contribution to NIPF management. Together they have assisted in about 58% of all forest management activities in the last 10 yr in Alabama. As the largest group of the three, consulting foresters contribute about 45 to 50% of all of the assistance provided to NIPF landowners. Although the percentage is relatively small, public foresters have more small (48%) and low income (37%) landowners as their clients than consulting and industry foresters. Consulting and industry

foresters have more medium and large landowners as their clients. The perception of all assistance foresters by NIPF landowners is generally positive. Reputation is a key to acquire new clients. Lastly, nearly one-third of NIPF landowners are in favor of keeping the number of public foresters roughly the same, whereas one-fifth believe the number should be increased. Respondents are evenly divided about paying a fee for services provided by public foresters.

These results have several policy and practical implications. First, the relationship between public and private foresters is neither completely complementary nor completely substitutional. On one hand, public foresters do assist more small and low income landowners, indicating they are complementary to private assistance foresters. On the other hand, public foresters assist many large and wealthy landowners as well. They are substitutes for private assistance foresters. Nevertheless, services from public foresters are an important part of NIPF landowner assistance programs. Reducing the number of public foresters drastically is not supported by NIPF landowners. Second, Royer and Kaiser (1985) suggested that public foresters in the South should redirect their efforts from being technical assistants to serving as facilitators in order to reach landowners currently not practicing forest management (17% of our sample). This suggestion can be expanded by including landowners who are currently practicing forest management, but who do not

have any help from other assistance foresters and those who do not have information about assistance foresters. Finally, policy-makers should be careful in implementing a plan for fee-for-services provided by public foresters. More studies in this area are warranted.

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