Pennsylvania's Private Woodland Owners—

A Study of the Characteristics, Attitudes, and Actions of an Important Group of Decision-Makers

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AN EXPANDING MEGALOPOLITAN population is going to look to forest lands in the Northeast for a greater supply of commodities and services. Will they find what they are looking for? The answer to this question depends greatly on the attitudes and actions of woodland owners. They control the resource, and their decisions will determine its use.

The policies and operations of most public and large corporate owners of forest land are matters of record or can be readily determined. But little is known about the characteristics, attitudes, and actions of farmers, small businessmen, laborers, professionals, clerks, retirees, housewives, and other private noncorporate owners who collectively own most of the woodland in the Northeast. Until more is known about these people, meaningful assessments of the availability of forest products and services will be impossible. To help fill the knowledge gap, we conducted this study of private non-industrial woodland owners in Pennsylvania.

Study Approach

There are approximately 300,000 private non-corporate woodland owners in Pennsylvania (*3*). It was not feasible to attempt to contact all of these individuals, so some method of sampling had to be devised. Previous research suggests that owner decisions regarding the management and use of woodland are related to size of holding (*1*) (*2*). Accordingly, we designed a sampling technique that insured an adequate stratification of owners by woodland size class.

Six hundred forested points were systematically selected and marked on aerial photographs. The sample was equally proportioned among three regions of Pennsylvania exhibiting contrasting structures of socio-economic activity (fig. 1).

The Southwest Region, except for the cities of Altoona and Johnstown, is a typically rural area. Its hills are covered with trees and the utilization of timber contributes significantly to the local economy. The Southeast Region exhibits a mixed setting of suburban fringe and intensive agriculture. Woodland is sparse and is found in small scattered tracts. The Pocono Region is densely forested. It is in close

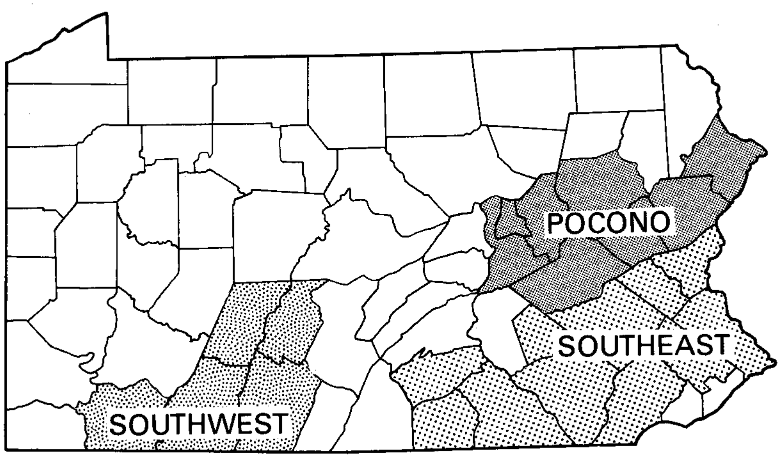

Figure 1.—The study regions.

proximity to large metropolitan centers and is best known for its recreational facilities.

Names and addresses of the owners of the photo point locations were obtained from county assessment offices. Questionnaires were mailed to the owners, and many of those who did not respond were contacted by phone. A total of 394 owners provided data for this analysis (table 1).

Woodland Owner Characteristics

Occupation, Income, Age, and Education

Woodland owners are in many diverse fields of endeavor. Our sample includes occupations ranging from bartender to wild animal trainer. A large number of owners fall into the category known as white collar workers—doctors, teachers, township supervisors, store owners, secretaries, salesmen, etc. (table 2). Two-thirds of the large owners and one-third of the small and medium owners are in this occupation class.

There is a very significant relationship between owner income and size of woodland holding. Sixty-five percent of the large woodland owners received a gross household income of $10,000 or more in 1968 (table 3). Only 30 percent of the small owners were this affluent.

Any effective planning for the availability and use of private forests must involve woodland owners over 50 years of age. They represent an overwhelming majority of the owners in each acreage class (table 4). Very few owners are under 30.

Large owners have more formal education (table 5). More than four-fifths of them have attended high school, and more than half of these individuals have been to college. Only one-fourth of the small owners and one-third of the medium owners have attended college.

Tenure

Our sample includes some people who have owned woodland for less than 1 year and others who have owned woodland for more than 50 years. The great majority have been woodland owners for more than 10 years (table 6). About half of the individuals in each acreage class have had tracts for more than 20 years.

Mortgages, leases, and other legal commitments on the woodland can have an important impact on owner decisions regarding woodland use and development. However, our study indicates that few owners are subject to these encumbrances (table 7).

There is a definite relationship between size of holding and type of ownership (table 8). Practically all of the small holdings are owned by individuals and family units. Partnerships are more prevalent among the medium and large owners.

Owners of small tracts live closer to their woodlands (table 9). Seventy-two percent of the small owners live on or within a mile of their closest tract. Most of the large owners live at least a mile away, and many reside more than 25 miles away from their nearest woodland.

A preponderance of the land owned by large and medium woodland owners is in forest (table 10). Four-fifths of the large owners indicate that woodland accounts for more than 75 percent of their total land holding. Small woodland owners use a greater proportion of their land for purposes such as residence and farming. Thus a smaller percentage of their holdings are in tree cover.

Woodland Owner Attitudes and Actions

Uses of Woodlands

Woodland owners listed the most important recent past uses of their woodland, and we classified them into five general categories—personal recreation, production of forest products and services, speculation in land value, satisfaction of ownership, and permanent residence (table 11).

This classification reveals some significant findings. Small woodland owners listed permanent residence as the primary use and ranked satisfaction of ownership second and personal recreation third. Medium owners gave nearly equal weight to all five uses. Large owners said that speculation in land values and production of forest products and services (both income producing motives) were most important and ranked satisfaction of ownership a strong third.

Comparison of past use (table 11) with future use intent (table 12) indicates that woodland owners in each size class will place more emphasis on the output of products and services and land values in the years ahead. They apparently would like to derive more income from their forest properties than they have in the past.

Sales of Forest Products

Current Selling Activity.—Forest product selling activity is related to size of holding. Large woodland owners sell more frequently than small and medium owners (table 13). Nearly half of the large owners sold products in the last 5 years. Only 29 percent of the medium owners and 9 percent of the small owners reported product sales.

Our data will not permit complete analyses of the quantity and value of recent sales. However, a range can be presented. The most active seller sold $230,000 worth of sawlogs and mine timbers in the last 5 years. The least active seller sold $50 worth of fence posts. One individual received $370 for rhododendron and laurel plants dug from his woodland.

Large owners received more professional help with product sales than small and medium owners (table 14). Nearly three-fourths of the sellers in the large owner category received assistance. The types of assistance included boundary surveys, selection and marking of trees, and sales volume estimates.

Those owners who did not sell forest products in the last five years were asked to list the prime reasons for not selling. We received a variety of replies. These responses were sorted into three general categories (table 15). Nearly three-fifths of the nonsellers who own large woodland acreages indicated they had nothing of value to sell. Two-fifths (a plurality) of the nonsellers in the small and medium woodland acreage classes said they didn't want to sell and that other interests such as maintenance of natural setting and protection of wildlife habitat precluded product sales.

Only a very small percentage of owners who did not sell forest products in the past 5 years tried to find buyers for their products. But at least 32 percent of the non-selling owners in each woodland acreage class were contacted by buyers (table 16). Buyers approached half of the nonsellers who own large woodland acreages.

Plans for Future Sales.—Large owners are more inclined to sell forest products in the years ahead than small and medium owners (table 17). Nearly two-fifths of the large owners intend to sell. Less than one-fourth of the medium owners and only one-tenth of the small owners plan sales. Twenty-eight percent of the owners in each size category are not certain of their selling plans.

There appears to be a strong relationship between past selling activity and future sales intent. Owners who sold in the recent past are more inclined to sell in the future.

About four-fifths of those owners with a potential interest in future product sales indicate a need for information and services (table 18). What they would want most is help in selecting and determining the value of salable products. Some would also require price information, aid in finding a buyer, and woodland boundary surveys.

Those owners who definitely do not intend to sell forest products in the near future were asked to list the prime reasons for not wanting to sell. Reasons were basically the same as those given by owners who did not sell in the past. A plurality of the large and medium owners who do not plan product sales said they would have nothing of value to sell in the next 5 years (table 19). A plurality of the small owners indicated that other uses will preclude product removals.

Forest Management Practices

More large owners practiced forestry than small and medium owners. About half of the large owners have undertaken some form of forest management in the past 5 years (table 20). Tree planting was by far the most popular practice among all owners. But a significant number have also developed management plans, taken inventory of their forest stands, and thinned out trees to provide growing space. There was great variation in the kind and extent of practice accomplishment. The most active owner in our sample thinned a 1200-acre tract and sold the merchantable volume for mine timbers and sawlogs. Another owner only planted a half acre of pine.

Most of the owners in our sample said they did not obtain information about the management and marketing of forest products during the past 5 years (table 21). Receipt of information was related to size of woodland holding. One-third of the large owners, but only about 10 percent of the small and medium owners, obtained this kind of information. Those who did obtain information listed the Pennsylvania Department of Environmental Resources and private consultants as primary sources.

Only a very small percentage of all the owners entered into formal government programs (for example, the Agricultural Conservation Program) that provide technical or cost sharing assistance with woodland projects (table 22).

Plans for Holding Woodland

Some owners are uncertain as to whether or not they will hold on to their woodlands in the next few years (table 23). But most of them—four-fifths of the small owners and three-fifths of the medium and large owners—definitely plan to keep all of their woodlands. Nearly one-fourth of the large owners intend to sell part or all of their holdings.

Summary

This study provides a wealth of current information about the characteristics, attitudes, and actions of private noncorporate woodland owners in Pennsylvania. Perhaps most important is its documentation of the many basic differences between owners of small, medium, and large tracts of woodland. We found, for example, that larger owners (500 acres or more woodland):

- have higher incomes
- have more formal education
- live farther from their woodlands
- are more interested in the income producing potential of their forest tracts
- sell forest products more frequently
- undertake forest management more often

As a result of this analysis, we have a sounder basis for assessing the role of the private woodland owner as a supplier of forest products and services.

We are now subjecting the study results to a multivariate analysis in an attempt to develop models for explaining and predicting woodland owner actions.

Tabular Data

Table 1.—The sample of owners by region and size of woodland holding

[Number of owners]

Regions	Woodland acreage class: Small 1 - 99	Medium 100 - 499	Large 500 and more	Total
Southwest	55	65	19	139
Southeast	105	24	5	134
Pocono	64	35	22	121
Total	224	124	46	394

Table 2.—Occupation, in percent

Main occupation	Woodland acreage class: Small 1 - 99	Medium 100 - 499	Large 500 and more
White collar workers[1]	32	32	68
Blue Collar workers[2]	20	19	4
Farmers	21	23	4
Retired individuals	15	16	20
Others[3]	12	10	4
Total	100	100	100

[1] White collar workers include professional and technical people, managers, officials and proprietors, clerical workers, and sales workers.

[2] Blue collar workers include craftsmen and foremen, operatives (e.g. truck drivers), and laborers.

[3] Others include service workers, housewives, and disabled and unemployed individuals.

Table 3.—Income, in percent

Income class[1]	Woodland acreage class: Small 1 - 99	Medium 100 - 499	Large 500 and more
Less than $5,000	39	37	13
$ 5,000 - $ 9,999	31	25	22
$10,000 - $19,999	17	15	24
$20,000 and more	13	23	41
Total	100	100	100

[1] Total gross household income from all sources in 1968. Includes salaries, wages, dividends, income from business, social security, etc.

Table 4.—Age, in percent

Age class	Woodland acreage class: Small 1 - 99	Medium 100 - 499	Large 500 and more
Under 50	29	30	22
50 - 59	29	32	43
60 and over	42	38	35
Total	100	100	100

Table 5.—Formal education, in percent

Highest level attended	Woodland acreage class: Small 1 - 99	Medium 100 - 499	Large 500 and more
Grade school	35	36	18
High school	40	31	28
College	25	33	54
Total	100	100	100

Table 6.—Duration of ownership, in percent

Duration (years)	Woodland acreage class: Small 1 - 99	Medium 100 - 499	Large 500 and more
10 or less	27	32	15
11 to 20	20	22	35
More than 20	53	46	50
Total	100	100	100

Table 7.—Encumbered status of woodlands, in percent

Status	Woodland acreage class: Small 1 - 99	Medium 100 - 499	Large 500 and more
Encumbered[1]	14	15	7
Unencumbered	86	85	93
Total	100	100	100

[1] Mortgages, leases, and other legal commitments.

Table 8.—Ownership type, in percent

Type	Woodland acreage class: Small 1 - 99	Medium 100 - 499	Large 500 and more
Individual or family	95	81	65
Partnership[1]	5	19	35
Total	100	100	100

[1] Includes a few undivided estates.

Table 9.—Distance from residence to nearest woodland, in percent

Distance to nearest woodland	Woodland acreage class: Small 1 - 99	Medium 100 - 499	Large 500 and more
Live on or within 1 mile	72	60	35
1 - 25 miles	21	31	39
More than 25 miles	7	9	26
Total	100	100	100

Table 10.—Woodland as a percent of total land acreage owned, in percent

Percent of land in woodland	Woodland acreage class: Small 1 - 99	Medium 100 - 499	Large 500 and more
1 - 25	29	5	0
26 - 50	24	23	7
51 - 75	16	21	15
76 - 100	31	51	78
Total	100	100	100

Table 11.—Most important uses of woodlands in the past 5 years, in percent

Uses	Woodland acreage class: Small 1 - 99	Medium 100 - 499	Large 500 and more
Permanent residence	36	18	4
Satisfaction of ownership	28	19	23
Personal recreation[1]	22	21	12
Production of forest products and services[2]	7	22	30
Speculation in land value	7	20	31
Total	100	100	100

[1] Summer home, camping, fishing, hunting, etc.
[2] Timber, maple syrup, Christmas trees, commercial recreation, etc.

Table 12.—Most important intended uses of woodlands in the next 5 years, in percent

Uses	Woodland acreage class		
	Small 1 - 99	Medium 100 - 499	Large 500 and more
Permanent residence	33	17	3
Satisfaction of ownership	17	11	16
Personal recreation[1]	21	19	14
Production of forest products and services[2]	14	31	39
Speculation in land value	15	22	28
Total	100	100	100

[1] Summer home, camping, fishing, hunting, etc.

[2] Timber, maple syrup, Christmas trees, commercial recreation, etc.

Table 13.—Forest products selling activity during the past 5 years, in percent

Status	Woodland acreage class		
	Small 1 - 99	Medium 100 - 499	Large 500 and more
Sellers	9	29	46
Nonsellers	91	71	54
Total	100	100	100

Table 14.—Sellers who received professional help with forest product sales during the past 5 years, in percent

Received help	Woodland acreage class		
	Small 1 - 99	Medium 100 - 499	Large 500 and more
Yes	25	20	72
No	75	80	28
Total	100	100	100

Table 15.—Prime reasons for not selling forest products in the past 5 years, in percent

Reasons	Woodland acreage class: Small 1 - 99	Medium 100 - 499	Large 500 and more
Timber immature, nothing to sell	37	37	59
Didn't want to sell, conflicting uses precluded product removal	40	40	8
Other[1]	23	23	33
Total	100	100	100

[1] "Didn't need the money," "Didn't know how to go about selling," "Woodland too far from road," "Prices too low," and a variety of other reasons.

Table 16.—Nonsellers contacted by forest product buyers during the past 5 years, in percent

Contacted by buyers	Woodland acreage class: Small 1 - 99	Medium 100 - 499	Large 500 and more
Yes	32	32	50
No	68	68	50
Total	100	100	100

Table 17.—Plans for selling forest products in the next 5 years, in percent

Plan to sell	Woodland acreage class: Small 1 - 99	Medium 100 - 499	Large 500 and more
Yes	10	23	39
No	62	49	33
Not certain	28	28	28
Total	100	100	100

Table 18.—Potential seller need for assistance with product sales during the next 5 years, in percent

Need help	Woodland acreage class: Small 1 - 99	Medium 100 - 499	Large 500 and more
Yes	76	83	81
No	24	17	19
Total	100	100	100

Table 19.—Prime reasons for not planning to sell forest products in the next 5 years, in percent

Reasons	Woodland acreage class: Small 1 - 99	Medium 100 - 499	Large 500 and more
Timber is immature, nothing to sell	24	44	43
Conflicting uses preclude product removal	45	38	28
Other[1]	31	18	29
Total	100	100	100

[1] "Won't need the money," "Woodland too far from road," "Won't get the price I want," and a variety of other reasons.

Table 20.—Use of forest management practices during the past 5 years, in percent

Practiced forest management	Woodland acreage class: Small 1 - 99	Medium 100 - 499	Large 500 and more
Yes	35	37	52
No	65	63	48
Total	100	100	100

Table 21.—Receipt of management and marketing information during the past 5 years, in percent

Received information	Woodland acreage class: Small 1 - 99	Medium 100 - 499	Large 500 and more
Yes	9	12	33
No	91	88	67
Total	100	100	100

Table 22.—Receipt of government program assistance (technical or cost sharing) with woodland projects during the past 5 years, in percent

Received government assistance	Woodland acreage class: Small 1 - 99	Medium 100 - 499	Large 500 and more
Yes	3	7	11
No	97	93	89
Total	100	100	100

Table 23.—Plans for holding woodland during the next 5 years, in percent

Plans	Woodland acreage class: Small 1 - 99	Medium 100 - 499	Large 500 and more
Will definitely keep all	79	59	59
Will sell part or all	4	13	24
Not certain	17	28	17
Total	100	100	100

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