Socio-Economic Characteristics of Prospective Nonindustrial Private Timber Sellers in East Texas

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SUMMARY

Data provided by 317 nonindustrial private forest owners suggest that in the East Texas region, future timber sellers will tend to exhibit the following characteristics:
1. Their forest holdings will be 100 or more acres in size;
2. They will have owned forest land for 10 or more years;
3. They will live in towns or cities, not on their forest properties;
4. They will be primarily interested in the income-producing potential as opposed to consumptive use of their woodlands;
5. They will be farmers and ranchers or business and professional people;
6. They will have completed at least some college; and
7. Their incomes will exceed $30,000 per year.

METHODS

Data Collection

Two counties—Rusk in northeast Texas and Walker in southeast Texas—were selected for study. Each was chosen as representative of its respective subregion. Rusk County contains about 290,000 acres of commercial forest, some 90 percent of which is controlled by NIP forest owners (Earles 1976). Walker County has approximately 325,000 acres of commercial woodland, of which NIP forest owners hold roughly 75 percent (Earles 1976). Timber markets in these counties have traditionally been active. Before the economic recession of the early 1980's, some 12 million cubic feet of industrial wood products were harvested annually in each area (Braddock 1978).

Rural landowners in the two study counties were identified from ownership lists provided by the Agricultural Stabilization and Conservation Service. For each individual, the lists indicated name and address, total number of acres owned, and number of acres under cultivation. Building on this information, stratified random sampling with proportional allocation was used to select 1,000 potential respondents from each list. The following three strata, based on differences in total property size, were recognized: 500 or more acres, 100 to 499 acres, and 40 to 99 acres. Properties of less than 40 acres were not considered.

To obtain the required data, questionnaires were sent to the selected property owners in each county. The questionnaires asked the recipients to indicate if a timber sale was planned for the future. Three responses were allowed—yes, no, and uncertain. Information was also solicited about several socio-economic characteristics.
The first and second columns of table 1 identify these characteristics and explain how each was defined. The number of questionnaires returned after two mailings totaled 850. Many of these, however, were rejected for incompleteness or because the respondents indicated they were uncertain as to their future sales plans. The number of acceptable responses was 317 from Rusk County and 154 from Walker County. Though low, these response rates were judged to be adequate. Furthermore, there were no apparent reasons to suspect that the returns were biased. The respondents differed greatly in terms of the observed socioeconomic characteristics, and, for both counties, were distributed among the various sampling strata in approximately the same proportions as the two landowner populations.

### Data Analysis

Contingency tables were employed to determine which socio-economic characteristics were related to willingness to sell. The number of rows in the tables varied

<table>
<thead>
<tr>
<th>Socio-economic characteristic</th>
<th>Manner defined</th>
<th>Nature of relationship to prospective willingness to sell timber ($\alpha = 0.05$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acres of forest land owned</td>
<td>Responses were aggregated into two classes: (1) &lt; 100 acres, and (2) $\geq$ 100 acres.</td>
<td>Planned sales more prevalent among owners with $\geq$ 100 acres of forest land.</td>
</tr>
<tr>
<td>Years of tenure</td>
<td>Responses were aggregated into two classes: (1) &lt; 10 years, and (2) $\geq$ 10 years.</td>
<td>Planned sales more prevalent among owners with $\geq$ 10 years tenure.</td>
</tr>
<tr>
<td>Distance of permanent residence to forest property</td>
<td>Responses were aggregated into two classes: (1) owner lives on the property, and (2) owner lives off the property.</td>
<td>Planned sales more prevalent among absentee owners.</td>
</tr>
<tr>
<td>Primary interest in forest land ownership</td>
<td>Responses were aggregated into two classes: (1) income oriented (e.g., timber production, grazing, investment or speculation, and leasing), and (2) consumption oriented (e.g., place of residence, personal recreation, and enjoyment of wildlife).</td>
<td>Planned sales more prevalent among owners interested in the income producing potential of forest land.</td>
</tr>
<tr>
<td>Sex</td>
<td>The two possible responses were: (1) male, and (2) female.</td>
<td>None-variables independent.</td>
</tr>
<tr>
<td>Occupation</td>
<td>Responses were aggregated into four classes: (1) farmers and ranchers, (2) business and professional people, (3) retired persons, and (4) others.</td>
<td>Planned sales more prevalent among farmers and ranchers or business and professional people.</td>
</tr>
<tr>
<td>Age</td>
<td>Responses were aggregated into three classes: (1) $&lt; 50$ years, (2) 50 to 64 years, and (3) 65+ years.</td>
<td>None-variables independent.</td>
</tr>
<tr>
<td>Size of community where raised</td>
<td>Responses were aggregated into three classes: (1) open country, (2) town (i.e., population &lt; 15,000), and (3) city (i.e., population $\geq$ 15,000).</td>
<td>None-variables independent.</td>
</tr>
<tr>
<td>Size of community where presently residing</td>
<td>Responses were aggregated into three classes: (1) open country, (2) town (i.e., population &lt; 15,000), and (3) city (i.e., population $\geq$ 15,000).</td>
<td>Planned sales more prevalent among owners living in towns or cities of $\geq$ 15,000 population.</td>
</tr>
<tr>
<td>Education</td>
<td>Responses were aggregated into four classes: (1) $\leq$ 8th grade, (2) 9th grade to 12th grade, (3) attended or completed college, and (4) graduate work.</td>
<td>Planned sales more prevalent among owners who have attended college.</td>
</tr>
<tr>
<td>Income</td>
<td>Responses were aggregated into three classes: (1) $\leq$ 15,000 per year, (2) $&gt; 15,000$ to $30,000 per year, and (3) $&gt; 30,000$ per year.</td>
<td>Planned sales more prevalent among owners with incomes exceeding $30,000 per year.</td>
</tr>
</tbody>
</table>

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from two to four, depending on which characteristic was being considered, and there were two columns—“timber sale planned” and “no timber sale planned.” All testing was performed at the $\alpha = 0.05$ significance level. Whenever the decision was to reject the null hypothesis of independence, the table in question was evaluated by studying the observed and expected values of each cell to see if the nature of the relationship could be inferred.

Initially, the returns were examined by county. However, since the findings were very similar, all of the responses were combined and analyzed jointly for purposes of this note.

**RESULTS AND DISCUSSION**

The results of the testing are shown in the last column of table 1. These data suggest that future timber sellers in East Texas will tend to exhibit the following socio-economic characteristics:

- their forest holdings will be 100 or more acres in size,
- they will have owned forest land for 10 or more years,
- they will live in towns or cities, not on their forest properties,
- they will be primarily interested in the income-producing potential as opposed to consumptive use of their woodlands,
- they will be farmers and ranchers or business and professional people,
- they will have completed at least some college and their incomes will exceed $30,000 per year.

To a considerable degree, the preceding findings are consistent with those obtained in earlier studies. Almost without exception, interest in timber harvesting is positively related to the amount of forest land owned (Babeu et al. 1965, Binkley 1981, Holmes and Diamond 1980, Kingsley 1976, Marlin 1978). Similarly, most investigators have concluded that forest owners are more likely to participate in local timber markets if they have held their property for several years. In addition, those who are primarily interested in the income-producing potential of their properties. Some will be farmers and ranchers by trade, but others will be business and professional people who reside in a town or city. Most will have owned their forest tracts for several years. In addition, these future market participants will normally have completed some college and will be earning well above average incomes.

**LITERATURE CITED**

Babeu, R. G.; Rhodes, A. D.; MacConnell, W. P.; Foster, J. H. Forest owner characteristics and attitudes in Berkshire County, Massachusetts, Amherst, MA: Massachusetts Agricultural Experiment Station Bull. 549; 1965. 55 p.


