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Mississippi Private Forest Owner Characteristics and Future Plans: Implications for Extension Forestry

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By

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Mississippi private forest owner characteristics and future plans: implications for Extension Forestry

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Extension professionals are faced with the challenge of effectively communicating relevant information to an evolving audience with diverse interests. This study utilized mixed methodologies to highlight specific educational programming needs of nonindustrial private forest landowners (NIPFs) in Mississippi. Ten landowner focus groups were conducted during January 2012, followed one year later by the mailing of 3,000 survey questionnaires to Mississippi NIPFs owning 20 or more acres of uncultivated land. Findings indicated NIPFs are more likely to adopt new ideas if educational programming is tailored to their specific needs, indicating the need to group the audience by their interests. In particular, findings showed an increasing need for educational resources, particularly regarding succession management and estate planning. Eighty percent of respondents indicated passing land to heirs was an important or very important reason for land ownership. Results also emphasized the importance of employing new technology as a means for communicating more efficiently.

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CHAPTER I

INTRODUCTION

Private forest landowners own eighty-seven percent of the South's 214 million acres of forestland and their decisions play an important role in timber supply as well as the future of southern forestland (Smith et al. 2009). Mississippi alone contains over 19 million acres of forestland and almost 13 million of these are held by approximately 300,000 nonindustrial private forest landowners (NIPFs; Smith et al. 2009). Mississippi State University Forestry Extension (henceforth, Extension) serves private forest landowners by providing educational seminars and publications regarding forest management.

Regardless of the efforts by Extension to provide assistance, many Mississippi NIPFs are unaware of the resources available to them (Measells et al. 2005). This highlights the need for ongoing research to better understand the educational needs and interests of NIPFs while considering the best methods of relaying information to them. In particular, the average landowner age in the southern United States was 60 years, and many NIPFs owned land for the sake of transferring it to their heirs (Butler and Leatherberry 2004). With this in mind, this study focuses on educational needs regarding management succession and estate planning. While Extension has assisted landowners in planning for the future of their forestland to a limited extent, continued development of

educational programs and resources to assist NIPFs with these and related activities is needed.

The literature is limited regarding NIPFs' plans and attitudes regarding land transfer; however, there is growing interest in how the intergenerational transfer of forestland affects parcelization (e.g., Best 2002, Gustafson and Loehle 2006, Zhang et al. 2009). In the near future, a high degree of intergernational forestland transfer will occur; however, future generations of owners tend to be less connected to the land than the current generation (Mater et al. 2005). Moreover, heirs to forested property may have conflicting interests or face financial strain caused by inheritance (Best 2002). These issues can contribute to parcelization simply by the division of property amongst heirs or by subdivision for financial gain (DeCoster 1998, Gustafson and Loehle 2006).

Regardless of the cause, parcelization promotes the trend in southern forestland toward smaller tract sizes which can increase the per acre cost of management activities and reduce the likelihood of landowner participation in educational programs (Wear and Greis 2002). This emphasizes the need to understand the educational needs of NIPFs, specifically related to succession and estate planning. Effective educational outreach concerning sucession management and estate planning is important for the conservation of forestland by future generations of landowners.

This research addresses if, and how, Mississippi NIPFs are planning to transfer their forestland and how Extension can assist landowners in the process of succession management and estate planning. The study investigates the planning efforts that have been made by owners regarding land transfer, particularly in relation to owner attachments to their property. Second, this study explores the socio-demographic and

property characteristics of Mississippi NIPFs which may influence their educational needs. Investigating these topics will allow Extension to enhance its educational outreach by improving marketing efforts, better defining outreach goals, efficiently using funding, and adjusting technology use to more effectively communicate with its audience (West et al. 2009; Diem et al. 2011).

Following this introduction, Chapter Two presents a review of pertinent literature. Chapter Three describes the framework from which this study was approached. Using Rogers' classic diffusion model of technology transfer, the research explores Extension's use of the four pillars which influence the acceptance and transfer of new ideas: (1) innovation; (2) communication channels; (3) time; and (4) social system. Chapter Four describes the qualitative and quantitative methodologies used to collect data. Focus group sessions and a self-administered mail survey were used to investigate the characteristics of Mississippi NIPFs while assessing their educational needs. Results are presented in Chapters Five and Six, and include a summary of Mississippi NIPF characteristics and their educational programming preferences with specific attention given to needs related to land transfer. Finally, Chapter Seven presents conclusions and discusses ways which Extension can use these results to tailor educational outreach.

CHAPTER II

LITERATURE REVIEW

Forestland Ownership and Landowner Characteristics

The United States contains 751 million acres of forestland which makes up over 30 percent of the total land area in the country, and about one third of this forestland is owned by nonindustrial private forest landowners (NIPFs; Smith et al. 2009). NIPFs in the southern United States control 89 percent of the South's 214 million acres of forestland (Wear and Greis 2002). In Mississippi alone, almost 13 million acres of the state's nearly 20 million acres of forestland is held by NIPFs (Smith et al. 2009).

Like the rest of the South, private forest landowners in Mississippi are a relatively homogenous group. Southern NIPFs tend to be male, college educated, retired, and live within one mile of their forestland (Birch 1997; Butler and Leatherberrry 2004; Measells et al. 2005). Research has also shown that African American forest landowners in Alabama (about 3 percent of forest landowners in Mississippi) had ownership characteristics similar to other private forest owners in that they were well-educated, have higher incomes relative to their surrounding population, and have diverse management objectives (Gan et al. 2003).

The primary reasons NIPFs reported for owning land in the United States have been reasons other than timber production. These have included aesthetics, family legacy, and privacy (Smith et al. 2009). Family legacy and aesthetics have been among

the most commonly cited reasons for land ownership by southern NIPFs (Butler and Leatherberry 2004). In addition, southern NIPFs cited land investment as a primary reason for land ownership, and were more likely to cite timber production as their reason for ownership than NIPFs in any other region (Butler and Leatherberry 2004).

To emphasize the role of NIPFs in national timber supply, Smith et al. (2004) reported that 92 percent of growing stock removals during 2001 came from privately owned timberlands, and 63 percent of these came from the South. Thirty-five percent of private forest land in the South is controlled by owners who claim timber production as an important reason for ownership; however, this forestland is owned by only four percent of the NIPFs in the South (Birch 1997). A Mississippi survey to private forest owners showed large landowners were more likely to use their land for commodity production while landowners with fewer acres in their ownership placed value on the amenities of their land (Measells et al. 2005).

The importance of NIPFs and their land ownership decisions extends beyond timber supply alone, as their forests provide other environmental, social, and economic benefits (Kleunder and Walkingstick 2000; Butler and Leatherberry 2004). It is important to note that 90 percent of the United States' NIPFs had less than 50 acres in forestland ownership; furthermore, the majority of these owners had forested tracts of one to nine acres (Butler and Leatherberry 2004; Smith et al. 2009). According to a study by Doolittle (1996), which included owners across Mississippi having one acre or more, the average ownership size was 99 acres. Another Mississippi study found the average ownership to be 261 acres; however, this study only sampled NIPFs with 20 acres or more (Arano and Munn 2004).

Ownership Trends

Southern private forestland ownership has been trending toward decreasing tract size accompanied by an increasing number of landowners (Wear and Greis 2002; Butler and Leatherberry 2004). As the population of the United States has become older and more affluent, they have pursued land ownership, and this has contributed to parcelization by increasing the number of forestland owners (Downing et al. 2009). Further, parcelization is a phenomenon which can occur as land is divided among heirs and/or subdivided for financial gain (DeCoster 1998; Gustafson and Loehle 2006). Death has often forced the decision of making a sale or passing to heirs, and landowners may feel forced to sell the property to avoid costly estate taxes (DeCoster 1998; Mehmood and Zhang 2001). The majority of the NIPFs in the United States are over the age of 55, but many are 65 or older (Mater et al. 2005). One-sixth of the forestland owned by families will be transferred in the next five years (USDA Forest Service 2012).

Urbanization can also be a contributor to the parcelization of forestland. As urban areas spread, the focus of management shifts away from timber production and forestland conversion can occur (Barlow et al. 1998; Mehmood and Zhang 2001). Population growth in the South was greater than the national average and forecasting models from the Southern Forest Resource Assessment suggest urbanization will cause a loss of 12 million forest acres between 1992 and 2020 plus a loss of an additional 19 million before 2040 (Wear and Greis 2002).

Educational Needs

Despite employing a variety of marketing tools, studies have shown that a large number of southern forest owners failed to receive information from Forestry Extension

(Baldwin and Haymond 1994; Measells et al. 2005). Lack of awareness was a primary reason Southern landowners did not attend Extension programs; therefore, programs should be marketed to landowners not currently participating (Measells et al. 2005). In particular, many minority landowners were not aware of available sources of technical assistance and programming should be more widely advertised to include these NIPFs (Gan et al. 2003). New participants should be identified who are not actively managing their land, but share similar attitudes and characteristics with owners who are (Butler et al. 2007). These landowners may be reached through volunteer-led programs such as Vermont Coverts, VIP/Coverts in Pennsylvania, the New York Master Forest Owner program, and Mississippi's extensive network of county forestry associations, all of which have successfully disseminated information through peer-to-peer learning (Finley and Jacobson 2001; Allred et al. 2011).

Other research has suggested that forest landowner outreach may be more successful when the audience is divided into homogeneous groups based on their objectives, ideals, or plans rather than approaching a large diverse body of landowners with the same message (Kittredge 2004; Butler et al. 2007; Majumdar et al. 2008). Further complicating Extension's educational delivery goals, many landowners may feel they have no need for educational information about forest management because they believe they are already managing their land (Davis and Fly 2010).

Although only four percent of landowners in the South owned land for the primary purpose of timber investment (Birch 1997), a Mississippi study reported that NIPFs selected marketing timber as the most needed program when questioned about potential topics for educational outreach (Measells et al. 2005). Other topics of interest

from the same study were insects/diseases, harvesting, best management practices (BMPs), and wildlife management. Egan and Jones (1993) suggested that as Extension conducts programs regarding timber harvest, it should focus on the many ownership objectives which can be enhanced with proper harvesting, specifically those of wildlife management and improved recreation. Furthermore, landowners may be more interested in improving their current forest amenities than making changes in their management to achieve long-term goals (Davis and Fly 2010).

Another challenge Extension must face is reaching landowners with small ownerships, as they have been less likely to participate in Extension programs than landowners with larger holdings (DeCoster 1998). This is, in part, because per acre forest management costs were greater for smaller landholdings (DeCoster 1998; Londo and Grebner 2004). A Virginia study found that landowners with smaller landholdings were more likely to be driven by the desire for a simple lifestyle (Kendra and Hull 2005). According to Downing et al. (2009), educational programs for NIPFs with smaller holdings should be less focused on timber harvest, and more concerned with other forest amenities. Furthermore, practical strategies for sustainable management of small parcels need to be clearly presented to NIPFs (Sampson and DeCoster 2000). Programs utilizing a train-the-trainer model like Pennsylvania State University's "Woods in Your Backyard" can convey the importance of forest stewardship to smaller landowners by engaging landowners in developing their own plans for their property to meet their goals while improving ecosystem health (Downing et al. 2009). Whether caused by urbanization, intergenerational transference, or sale of lands, parcelization increases the need for educational resources for NIPFs who own small tracts.

Withrow-Robinson et al. (2012) noted many landowners are interested in learning in learning about estate planning. Further highlighting the importance of providing information regarding estate and succession planning, Measells et al. (2005) reported that the top ownership objective of Mississippi landowners was to have an estate to pass on to heirs, but 32% of Mississippi landowners did not have a written will and testament. This finding is important to Forestry Extension in its educational outreach because successful estate planning involves more than a written will, and is an ongoing process that requires frequent updates (Tedder and Sutherland 1979; Peters et al. 1996). The "Ties to the Land" curriculum, a DVD-guided program developed at Oregon State University, has begun to alleviate the void in educational programs about succession management specifically for NIPFs, and the material has been presented to over 2,000 families in 11 states including Mississippi (Withrow-Robinson et al. 2012). Speakers with estate planning expertise, such as attorneys and financial planners, have been included in these educational programs to provide NIPFs the opportunity to connect with local professionals and have specific questions answered (Heleba et al. 2009; Withrow-Robinson et al. 2012). However, Hachfield et al. (2009) suggested specific questions to these speakers can prevent programs from conveying basic content and can cause programs to run long. Furthermore, they suggested landowners may believe the professionals are only attending to sell their service. Although questions regarding estate and succession planning may be best answered by legal experts, Extension can at least provide programs which give basic information and provide resources to landowners regarding succession and estate planning (Withrow-Robinson et al. 2012).

Additional research is needed to understand landowner motives regarding the bequest of forestland (Amacher et al. 2002). In addition to understanding what may drive NIPFs to pass their land to heirs, research must also consider who will make up the new generation of landowners. Considering 28% of NIPFs in the United States obtained their land through inheritance, Extension can benefit from an understanding of how this process affects management (Majumdar et al. 2009). Numerous studies have been conducted to investigate NIPF characteristics, management practices, and decision-making, but fewer have been undertaken to understand how these factors may be related to forestland transfer.

For example, Majumdar et al. (2009) used data from the National Woodland Owner Survey to compare inheritors to noninheritors. Findings showed that inheritors were more likely than noninheritors to claim passing land to heirs and timber production as motivations for ownership. Noninheritors were more likely to claim privacy, to be part of their home, and aesthetics as motivations for ownership. Further, inheritors are more likely than noninheritors to have plans regarding their forestland (Majumdar et al. 2009). In addition, many heirs do not live near the property and do not have plans to move to the property in the future (Mater et al. 2005).

The majority of heirs believe their parents desire to keep the land in the family (Mater et al. 2005). However, many next-generation landowners may not be prepared to maintain the same management as their parents because are not interested in participating in the current forest management (Mater et al. 2005). This underscores the concern that next-generation landowners may need different educational information than the current property owners. Furthermore, heirs saw taxes, costs of maintenance, and time

requirements as potential burdens in management (Mater et al. 2005). As land is transferred, profit maximization can cause heirs to harvest an excessive amount of timber or divide the property (Best 2002).

Reaching NIPFs who have small ownerships, are in the process of land transfer, or are otherwise underserved can be challenging for Extension, but previous research provides insight into successful outreach practices. Most landowners preferred active learning and believed newsletters, pamphlets, brochures, and letters were appropriate methods of advertising programs (Downing and Finley 2005; Measells et al. 2005; Londo et al. 2008). Occupation affected NIPFs' preferences on the best time to offer programs; weekend programs were not preferred, and level of formal education was positively related to the distance NIPFs were willing to travel (Downing and Finley 2005).

Extension has reached a point where adjustments in technology are necessary to reach its audiences with information (Diem et al. 2011). For instance, Extension clientele were receptive to video short courses, allowing broader topic delivery (Londo and Gaddis 2003). Still, these adjustments can be difficult because Extension personnel may be fearful of losing current clientele by adopting new outreach methods (Diem et al. 2011). Forest landownership is changing in Mississippi and across the South. Extension must understand these changes and the needs of associated clientele groups. In turn, Extension can ensure successful adoption and diffusion of up-to-date sustainable forestry knowledge and tools.

CHAPTER III

CONCEPTUAL FRAMEWORK

Extension seeks to effectively provide educational programming and resources to more than 300,000 NIPFs across the state. For this to be accomplished, Extension must first identify the needs of these landowners and the best methods for information delivery to them.

This research was driven by Rogers's (2003) classic diffusion model of technology transfer which defines diffusion as "the process in which an innovation is communicated through certain channels over time among the members of a social system." This framework is anchored by four pillars describing the acceptance and transfer of new ideas: (1) innovation; (2) communication channels; (3) time; and (4) social system. This study focused on innovation and communication because Extension can most effectively influence change by providing information on a variety of forestry-related topics through both personal and impersonal communication channels (Downing et al. 2009). Ensuring the relevancy of innovations and understanding how to best convey new ideas to landowners can benefit Extension as it promotes responsible forestry practices. The goal of this project was to better understand forest ownership goals of NIPFs in Mississippi, recognize their educational needs, and identify the best methods of contact and information delivery. More specifically, this research investigated NIPF plans for land transfer and associated educational needs (Figure 3.1). Understanding

ownership goals allows Extension to determine what ideas should be presented to NIPFs to meet their educational needs, and understanding the most effective communication channels allows for successful diffusion of these innovations.

Figure 3.1 Framework applied to mixed-methods study of Mississippi landowners.

Using Focus Groups to Explore Innovation and Communication Needs

Communication is crucial in the diffusion of innovations because the way in which potential adopters perceive the benefits of an innovation is important for adoption (Fliegel 1993). Presenting relevant and necessary information about an innovation to a potential adopter can reduce the amount of uncertainty about its adoption; however, a heterophilous audience can create challenges for providing relevant information to all members of the audience (Rogers 2003). In addition to having a changing audience compiled of NIPFs with different size ownerships, different objectives, and different educational needs, Extension must also be flexible in its informational delivery based on changing factors like the economy and tax regulations. Understanding the needs of NIPFs in Mississippi would allow for more efficient communication with the audience.

In this study, focus groups allowed for in-depth discussions regarding what information NIPFs seek before deciding to participate in management or planning

activities. Just because an innovation seems obviously beneficial does not mean that it will rapidly spread (Rogers 2003). This underscores the importance of understanding not only the educational topic NIPFs are interested in, but also identifying what drives their interest. Not all innovations are adopted at the same rate, and attributes of innovations like financial advantage, divisibility for trial, and adopter appeal may affect rate of adoption (Fliegel 1993). Rogers (2003) reported the following attributes affect adoption rate: (1) relative advantage; (2) compatibility; (3) complexity; (4) trialability; and (5) observability.

An advantage of focus groups is that they can provide insight into the reasoning behind NIPF motives and actions (Kingsley et al. 1988). Focus group discussions allow for specific investigation of barriers to management for NIPFs, and how the aforementioned attributes affect the rate of adoption of certain management and planning activities. Participants may provide more nuanced response than can be expressed in a quantitative survey instrument (Bliss and Marin 1989). Further, qualitative study can allow for exploration of variables that cannot be precisely quantified (Creswell 2009). Focus group sessions also provide insight into more than one specific moment in participants' lives as they are free to discuss numerous experiences occurring at different times for different reasons (Bliss and Martin 1989). This is beneficial for guiding Extension as to how NIPFs are affected by different scenarios in management.

Another benefit of focus group research is that observations can be made by the researcher which can improve their ability to guide subsequent discussions and locate common themes as they emerge (Kingsley et al. 1988). This allows focus group research to guide the development of a quantitative instrument to further investigate the research

topic. In this study, the topics of land attachment and transfer quickly emerged and were repeated over all focus group sessions. This observation steered the creation of the second phase of the study.

Using Quantitative Study to Further Explore Innovation and Communication Needs

The quantitative portion of this study, a mail survey, was designed to address educational needs related to land transfer. Guided by participant responses from focus groups, this phase of the study investigated the characteristics of those NIPFs interested in passing land to heirs while evaluating educational needs and preferred methods of outreach to address land transfer. Specifically, the questionnaire investigated whether or not Mississippi NIPFs believe passing land to heirs is an important reason for forestland ownership. Further, the study asked NIPFs what activities they had participated in to prepare their land for transfer.

Because of its traditional presence in agriculture and natural resources along with its demonstrative approaches at educational outreach, extension has recognized the importance of the connection between social and ecological systems (Krasny and Tidball 2010). The agricultural extension model begins with research conducted through agricultural experiment stations and the USDA. Findings from research are then directed to county extension agents by state extension specialists to be delivered to stakeholders at the local level. Rogers (2003) noted the success of this model in diffusing new information discovered through research. However, he noted this success has primarily been in the diffusion of information regarding production agriculture rather than information about social issues.

Diffusion of innovations related to succession management and estate planning can be challenging because social conflicts like unresolved issues amongst members of a family (Kaplan et al. 2009). Further, successful land transfer requires both technical tools and people skills, and the people skills are often lacking (Fetsch 1999). An inadequately met need is that of stimulating conversation about property transition (Ehmke and Miller 2008).

Most NIPFs are inherently aware that their land will be transferred eventually, but that does not mean that they know all the possibilities of planning for transfer. Similarly, it should not be assumed that the individuals who will be involved in land transfer have discussed the details of the bequest. Newness of an innovation goes beyond knowledge of an innovation and includes attitude and adoption of the innovation (Rogers 2003). Understanding where NIPFs rank passing land to heirs on a scale of importance, and investigating what planning activities NIPFs are already taking part in allows Extension to better plan its educational messages. Perceived advantages of estate and succession planning can impact its rate of adoption; therefore, carefully planned messages are imperative for reaching NIPFs with information they seek regarding land transfer (Fliegel 1993, Rogers 2003). Because planning for land transfer can be complicated by family dynamics and other social issues, Extension needs to investigate the barriers NIPFs currently face regarding succession management and estate planning.

CHAPTER IV

METHODS

In order to investigate the research questions being asked in this study, mixed-methodologies were employed. Focus groups were used for the qualitative portion of the study while a self-administered mail survey was used to gather quantitative data.

Focus Groups

Focus groups were utilized to gather initial information regarding NIPF ownership educational needs, and delivery preferences. Focus group sessions were an ideal method for the initial identification and exploration of attitudes and behaviors (Mitra and Lankford 1999). As used in this study, the method is not intended to statistically represent the study population. Rather, as Berg (2004) noted, focus groups are appropriate in situations where highly efficient collection of data is necessary. A major benefit of focus groups was the spontaneity and exchange among participants, which enabled participants to consider their own views in the context of the views of others (Mitra and Lankford 1999).

Nine focus groups were held during January 2012 in Lauderdale, Lamar, Marshall, Oktibbeha, Prentiss, Scott, Sharkey, Washington, and Wilkinson Counties in Mississippi. At least two meetings were held in each of the four Mississippi Extension Districts. Two sessions focused on the Mississippi Delta region, which has been

characterized primarily by row-crop agriculture, but has an expanding forest cover (MIFI 2009; Gordon and Barton 2012). In contrast to the pine forests found across much of the state, the Delta exclusively contains bottomland hardwood forests. It is important to note that, although this study included perspectives from the Delta, our objective was not to compare Delta and non-Delta counties. Minority landowners were invited to attend all focus group sessions, but minority attendance was very low in the nine other meetings. As a result, to ensure the inclusion of minority landowners, a tenth focus group specifically targeted African American landowners.

The lead researcher worked with county extension personnel to compile lists of potential participants with contact information. At least one landowner from each of the following categories was invited to each meeting: (1) a forest landowner with less than 100 acres; (2) a forest landowner with 100-500 acres; (3) a forest landowner with more than 500 acres; (4) an absentee landowner; (5) a forest landowner who does not participate in Extension programs; and (6) a landowner with non-timber forest products as the primary ownership objective. In addition, at least one consulting forester and/or public forester was invited to attend each meeting. These categories were not mutually exclusive and specific attention was given to include women and minorities. Once these lists were compiled, phone invitations were extended to all potential participants by the author.

Seven questions were asked, along with follow up questions to clarify and expand on emergent concepts. Based on the study objectives and literature review, questions covered: (1) ownership objectives; (2) how the property was acquired; (3) knowledge and use of management practices; (4) assets; (5) landowner perception of Extension; (6)

educational needs; and (7) preferred methods for teaching and advertising programs. The list of questions is included in Appendix A. Questions were open-ended for the purpose of encouraging discussion (Creswell 2009). Focus groups allowed for flexibility in discussions with landowners so that topics of interest could be explored from different perspectives (Marshall and Rossman 1999). With participant approval, sessions were recorded to complement the facilitator's notes. Sessions were transcribed, coded, and analyzed line-by-line for emergent themes (Creswell 2009). Key themes that materialized during the sessions are presented in the results. Further, the results from focus group sessions were used in combination with a literature review to construct a mail survey instrument used in collecting qualitative data for the study.

Self-administered Mail Survey

The survey questionnaire was comprised of four sections: (1) property information, (2) current management and future plans, (3) landowner educational needs, and (4) demographic information. Questions included in each of these sections were based on a review of literature and information generated from focus group sessions. After the construction of the questionnaire, it was pretested by members of the Lowndes and Tishomingo County Forestry Associations. A combined total of 28 landowners participated in piloting the questionnaire at two County Forestry Association (CFA) meetings. The participants were given approximately 25 minutes to complete the questionnaire, and then they responded with suggestions for improvement. The participants' responses were taken into consideration, and the questionnaire was adjusted accordingly.

The mail survey was conducted during January and February of 2013, and sent to 3,000 private forest landowners in Mississippi. Sample participants were randomly selected from a list of all tax-paying landowners with 20 or more uncultivated acres obtained from the State Tax Assessor's office (Londo et al. 2008). Any duplicate addresses were replaced. Based on a modified version of Dillman's Tailored Design Method (2007), a total of four mailings were sent: (1) pre-notice letter; (2) questionnaire mailing with cover letter; (3) thank you/reminder postcard; and (4) replacement questionnaire. The pre-notice letter was mailed January 8, 2013, followed one week later by the first questionnaire and cover letter. The very next week, on January 22, 2013, the reminder/thank-you postcard was mailed. Two weeks after the reminder postcard was mailed, the replacement questionnaire and accompanying cover letter was mailed.

Responses were entered into IBM SPSS for Windows, Release 20.0.0. Much of the data obtained from the mail survey instrument were nominal in nature; therefore, simple frequencies are reported and cross-tabulations were the primary tool used for analysis. Non-parametric tests of correlation were used in cases of one interval-type independent variable and one non-normal interval-type dependent variable. Binary logistic regression was used for cases which included one nominal dependent variable and one interval-type independent variable. Chi-square tests were employed to test for significant relationships between one nominal-type dependent variable and one independent variable two or more independent categories.

CHAPTER V

QUALITATIVE RESULTS

Participant Characteristics

Table 5.1 summarizes focus group participant characteristics. Eighty-three participants attended focus groups; 72.3% of participants were white males, 14.5% were African American males, 9.6% were white females, 2.4% were males of other races, and one (1.2%) was an African American female. Their ages ranged from 24 to 83 years, with a median of 58. In addition, 15.7% owned or managed less than 100 acres, 33.7% owned or managed 100-500 acres, 43.4% owned or managed more than 500 acres, and the remaining 7.2% gave no response.

Table 5.1 Characteristics of Focus Group Participants from 10 sessions in Mississippi, 2012 (*N*=83)

Gender and Race	
Black Female	1.2%
Black Male	14.5%
Other Male	2.4%
White Female	9.6%
White Male	72.3%
Acres Owned or Managed	
<100	15.7%
100-500	33.7%
>500	43.4%
No response	7.2%
Age (years)	
Median	58
Range	24-83

Ownership Objectives

Participant ownership goals included: family enjoyment, passing land to future generations, investment/income, wildlife, and recreation. The majority of participants said their ownership objectives were multi-faceted, and believed they could achieve more than just one goal of land ownership. Investment and income were rarely mentioned as the primary reason for ownership, but were often included among other objectives. Similarly, recreation was often included in ownership goals. Many landowners specified that the recreational activity they were most interested in was hunting. Examples of multi-faceted objectives are below:

> Our main objective is wildlife right now. The trees are young…so we are talking years and years before there is any benefit from forestry. However, we want to make sure we do whatever we need to do for future generations.

> I've got two purposes: recreational use as well as monetary reserve on the timber on my tree farms. My idea there was to pass something to my kids…it's kind of an estate planning thing for me.

In all sessions, strong attachments to the land emerged through activities conducted on the property: "I've got a beech tree in one of those hollows where I carved my initials, October, 1954. It's still there and I hope it's still there in 50 years." Specific place attachment such as this was discussed in nearly all focus groups as landowners shared specific reasons for their connection to their property. Some participants desired the country life as exemplified by this quote:

> I saw it as a way to do something I always wanted to do. I grew up in town and caught slack all the way through school about being a city boy, and all my friends lived out on the farm. I envied them so much…and soon after I got out of college and soon after I got out of the Marine Corps, I got a chance to buy a piece of land and I've been adding to it all along.

Delta participants emphasized the value of recreation and wildlife habitat in forest ownership, but no participant from those meetings considered income from timber harvest a primary objective. Many Delta participants expressed their concern over the timeline for growing hardwood trees, and many doubted the feasibility of producing high quality sawlogs on their property. However, most participants agreed earning income from timber would aid in paying for wildlife habitat enhancements: "I'm way more towards growing the wildlife than I am the profit from the trees."

Participants from the African American focus group primarily used their land for hay production, but were interested in active forest management if it would bring an economic return: "Most of my land is in hay production…some of it could be used for forestry also." Many said more information would allow them to make better decisions regarding their ownership and its best uses.

Landowner Educational Needs

Most participants stated that Extension could help them better realize their objectives. Marketing timber was a topic of interest at all sessions, although specific concerns varied by location and landowner objectives. For example, Oktibbeha County landowners were interested in identifying specialty markets for a particular species, whereas landowners state-wide expressed interest in new market potential, such as biomass: "I'm looking for new ideas. I'm trying to find what we can do that's cost effective and what are the advantages of it?"

Landowners in all counties except one expressed concern over mill closures and the challenges this creates for timber harvesting. Many participants also believed that Extension could help landowners by providing more localized timber price reports than

the quarterly statewide reports currently provided. Landowners in southwest Mississippi were concerned about mineral rights on their land and thought it would be useful to learn about how property rights to forest resources could be affected by selling mineral rights to oil companies: "Are they going to take our trees to put the oil wells in?"

Another topic of interest was cost-share programs. Landowners, especially those managing smaller properties with limited budgets, expressed lack of awareness about these programs. One consultant said, "I am staying abreast so I can advise my [landowner clients], but if I was a landowner it would be mind-boggling to figure out what's out there because there is nowhere to go to find it." As well, this quote reflected comments in the Delta with the increasing forest acreage driven by federal conservation programs.

Another major theme concerned intergenerational transfer of land. The majority of participants were concerned with increasing parcelization of forestland. They noted this created challenges for landowners pursuing active forest management: "You can get into a point of fragmentation where it's an unmanageable forest." Participants expressed their belief that involving younger generations in land management decisions and networking with other landowners result in stronger attachments to the land. One participant said, "I am guilty…I have 3 boys and I am a member of the forestry association, and I have never carried them to a meeting. Part of it is that their lives are so busy…but I am going to do that." Others planted trees with their children to teach them that the land would be theirs in the future.

Nonetheless, some participants thought the financial benefits of selling forestland could be more important than the family attachment to the land, depending on the

situation: “I have tried to educate my children that, as much as you may love the particular piece of land, when it comes time for it to realize the best return, that is what you should do and start your own legacy somewhere else.” This quote focuses on areas subject to development and suggests that educational programs are needed to make landowners more aware of their options given profit motives and equally important emotional attachments.

Contact and Delivery Preferences

The majority of participants believed Extension sufficiently publicized and provided useful educational programs; however, landowners from the African American and Delta focus groups felt that there was a lack of programs suited to their needs. Many Delta participants grouped forestry and agriculture programs in their discussion of the extension programming needs. Similarly, county forestry associations (CFAs) were mentioned in connection with Extension programs in all meetings except the African American and Delta focus groups. It is important to note that CFAs were only recently formed in the Delta in response to a dramatic increase in forestland driven largely by federal conservation programs.

Landowners who had participated in Extension programs said their primary information source regarding upcoming programs was traditional mailings. With few exceptions, the majority of participants had email access. However, participants from only two counties reported receiving forestry information from their county Extension office by email. One participant said, “Most people have email. Shoot them an email. That doesn’t cost anything.” This quote illustrates that some landowners believed email was convenient and could increase awareness and participation in Extension programs,

while others said they were receiving too many emails from other outlets and therefore ignored additional emails. Similarly, opinions varied with regard to Extension using the Internet (e.g., videos and webinars) to provide educational resources. Participants from a range of ages believed the Internet was a tool which could reach the younger generation and promote their interest and involvement in forest management, while others suggested all ages could use the Internet to learn about forestry: "It's hard to beat YouTube. Everybody knows how to use that." According to some landowners, a useful characteristic of posted videos is that they can be watched and reviewed at any time.

Most participants agreed that proximity and scheduling conflicts played an important role in attendance. Most stated that weekends were not a viable option, short programs were more effective than long ones, and meals help to increase attendance and interest in the program.

CHAPTER VI

QUANTITATIVE RESULTS

A total of 924 usable surveys were returned from the 2,940 successfully mailed, resulting in a response rate of 31.4%. Thirty-two questionnaires were returned with notes stating that the addressee either no longer owned the land or had no forestland on their property, and 15 individuals called or emailed to report the same. There were 13 addresses reported as not deliverable by the United States Postal Service.

A general overview of respondent demographic characteristics is presented below, followed by a summary of ownership characteristics and management objectives. NIPF plans for land transfer were investigated and are organized by specific planning activities. Following the report of estate and succession planning activities, there is a presentation of NIPF past activities of selling and gifting forestland along with their plans for future selling and gifting. Finally, there is a report of educational outreach preferences.

Overview of Respondent Characteristics

Table 6.1 provides a brief summary of characteristics of the mail survey respondents. The majority of respondents (58.6%) owned less than 100 acres of forestland, 35% owned between 100 and 500 acres, and the remaining 6.4% held more than 500 acres of forestland in their ownership. Nine hundred one survey participants responded to questions regarding gender and race. The majority were white males

(69.9%), 22.6% were white females, 3.3% were black males, 3.1% were black females, and the remaining 1% were males and females of other races. Of the 893 survey respondents who identified their age, the median was 67 years, while ages ranged from 32 to 97 years. Almost 54% (*N*=901) reported that they were retired, and the majority (78.2%; *N*=902) of respondents had received at least some college education.

Table 6.1 Characteristics of Mississippi NIPF respondents to a mail survey, 2013

Gender and Race (*N*=901)	
Black Female	3.1%
Black Male	3.3%
Other Female	0.3%
Other Male	0.7%
White Female	22.6%
White Male	69.9%
Total Forestland Owned (*N*=811)	
<100 acres	58.6%
100-500 acres	35%
>500 acres	6.4%
Age (years; *N*=893)	
Median	67
Range	32-97

Property Ownership and Management Characteristics

The ownership average for all types of land owned by survey respondents was 275.9 acres (*N*=912) and the average acreage of forested property was 166.2 (*N*=875). The mean ownership tenure of survey respondents was 24 years, and distribution of NIPFs by ownership tenure is shown in Figure 6.1. Nearly 35% of respondents (*N*=886) indicated that they owned more than one forested property (properties with separate legal descriptions), 7.0% (*N*=910) responded that they leased some or all of their forestland,

and 44.1% (*N*=893) indicated that their primary residence was on or within one mile of their forested property.

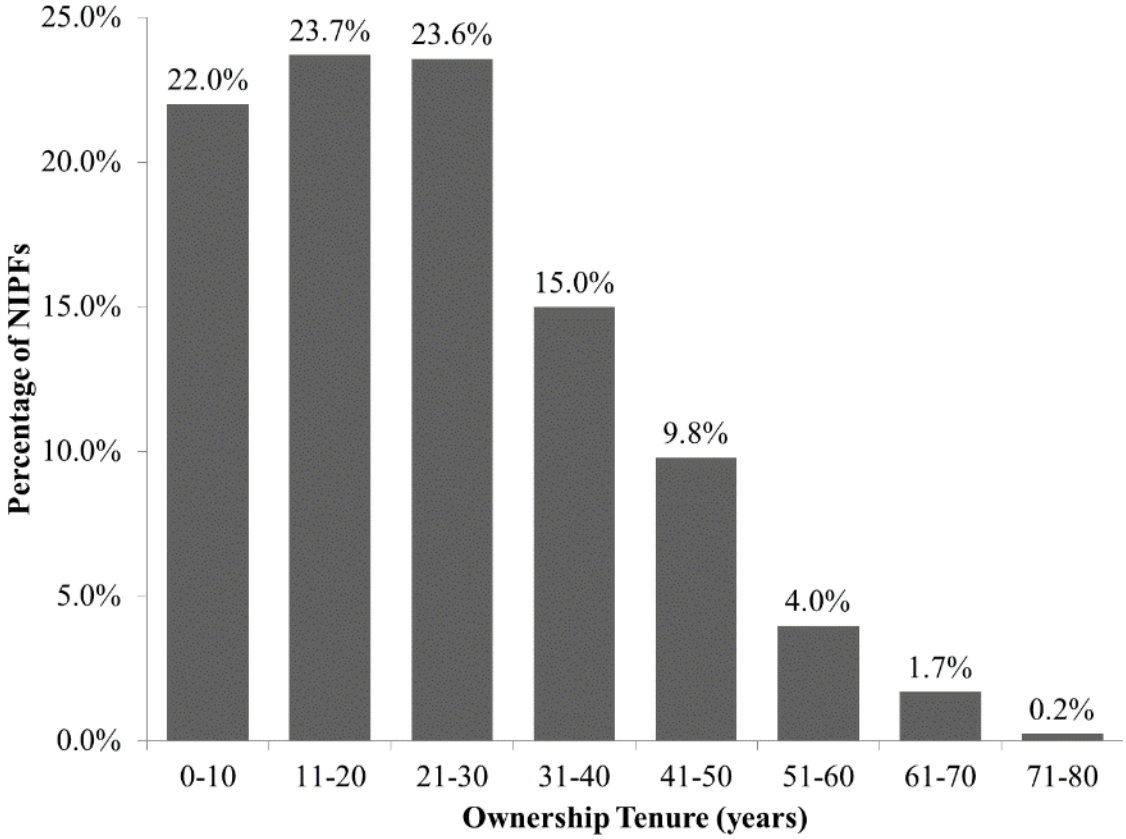

Figure 6.1 Distribution of Mississippi NIPF survey respondents by ownership tenure, (*N*=826)

Of the 892 respondents who indicated their ownership type (Figure 6.2), the majority described their ownerships as either individual (42.2%) or joint ownership with their spouse (33.6%). Nine percent selected family partnership, 6.3% indicated trust or estate, 5.9% selected other joint ownership, 1.5% indicated their ownership was a

corporation or business partnership, and the remaining 1.6% described their ownership as other.

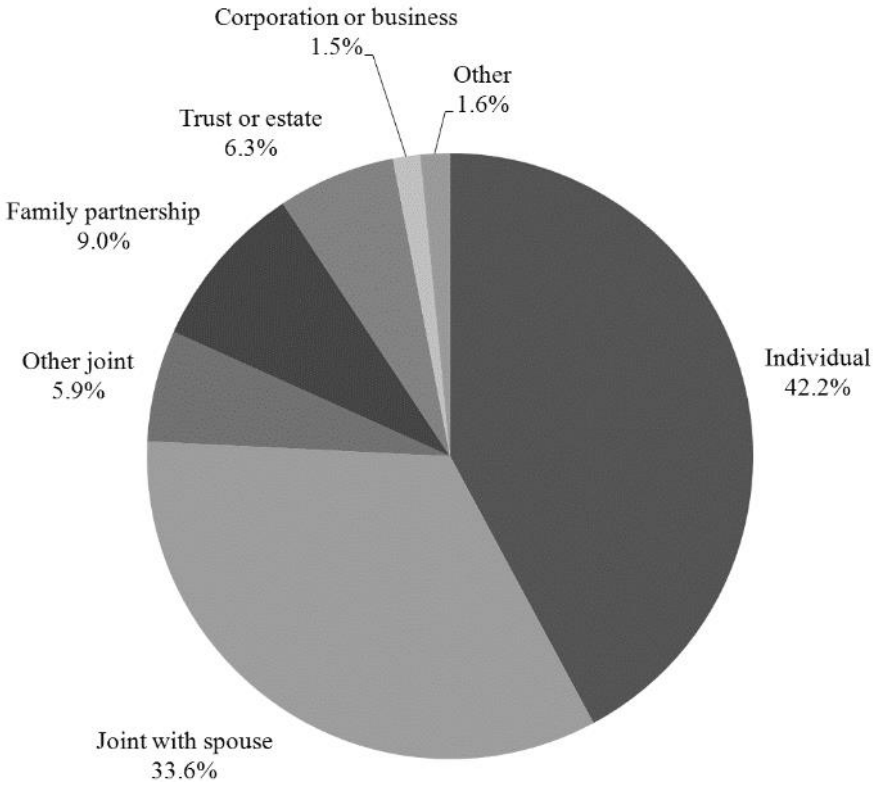

Figure 6.2 Distribution of Mississippi NIPF survey respondents by land ownership type (*N*=892)

Survey participants were also asked to indicate how they obtained their forestland. Of the 890 respondents, 53.7% purchased their forestland, 39.0% inherited, 4.7% indicated that they had purchased and inherited their forested property, 1.9% received the land as a gift, and the remaining 0.7% indicated other (Figure 6.3). Of the landowners who inherited their land, nearly 84% received the land from their parents, while 8.1% inherited from another family member, and 4.9% inherited the land from their

spouse. The majority of landowners who indicated that they had purchased their land recorded that the property was bought from other individual(s). Of respondents who acquired the land from family, 61.1% reported that the land had been in their family for more than 30 years before they received or purchased it.

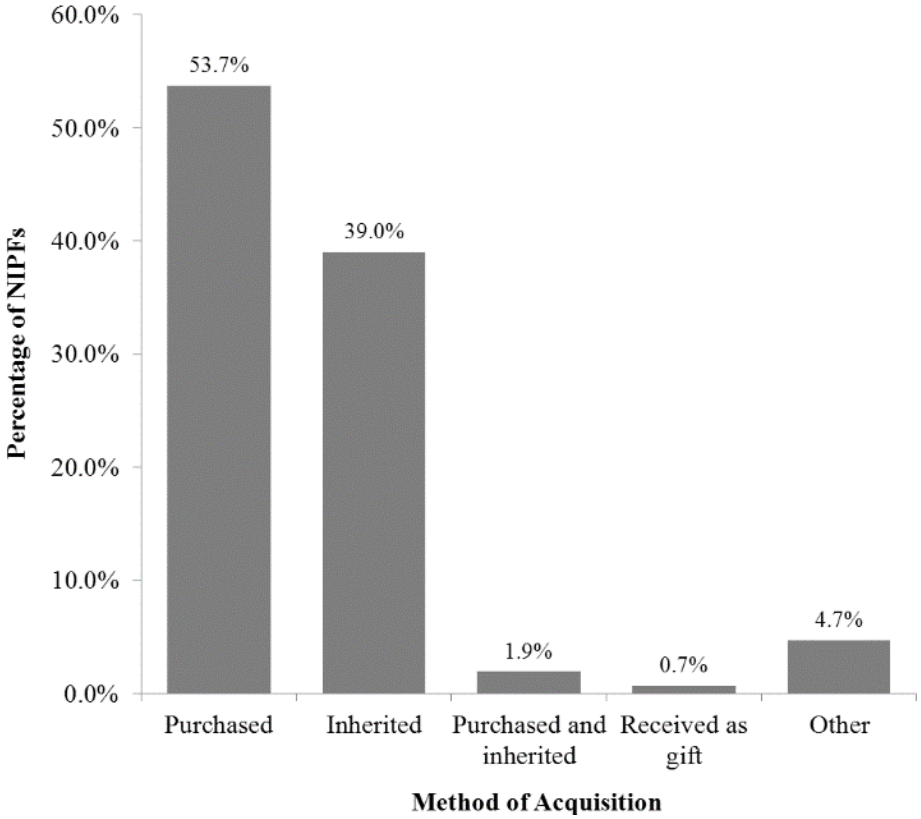

Figure 6.3 Distribution of Mississippi NIPF survey respondents by mode of land acquisition (*N*=890)

Nearly 52% of landowners (N=888) reported that they were raised on or near their forestland. Survey participants were also asked to indicate whether their property had once been part of a larger tract of land, and just over half (50.6%; *N*=893) reported that their property was, in fact, once part of a larger tract of land. Although these respondents

indicated their property had been previously divided, 52.1% of them indicated that there was very low or no development pressure on or around their land.

Figure 6.4 shows the top ten most important reasons (i.e., objectives) landowners cited for owning land. Of the 757 landowners who indicated their most important reason for land ownership, passing land to children or heirs was the most cited reason (25.2%), timber production was most important to 15.5%, and land investment was cited by 14.4%. Just over ten percent reported that the most important reason for land ownership was that their property was part of their home site or primary residence, 8.4% said enjoying beauty or scenery was most important, and 6.7% reported hunting as the most important reason for land ownership. Each of the remaining reasons was cited by less than five percent of respondents. These reasons are grouped into the category "All other reasons" in Figure 6.4, and included: (1) For nontimber forest products other than hunting; (2) For firewood; (3) To protect water resources; (4) For recreation, other than hunting; (5) It is part of my cabin or vacation home site; or (6) other.

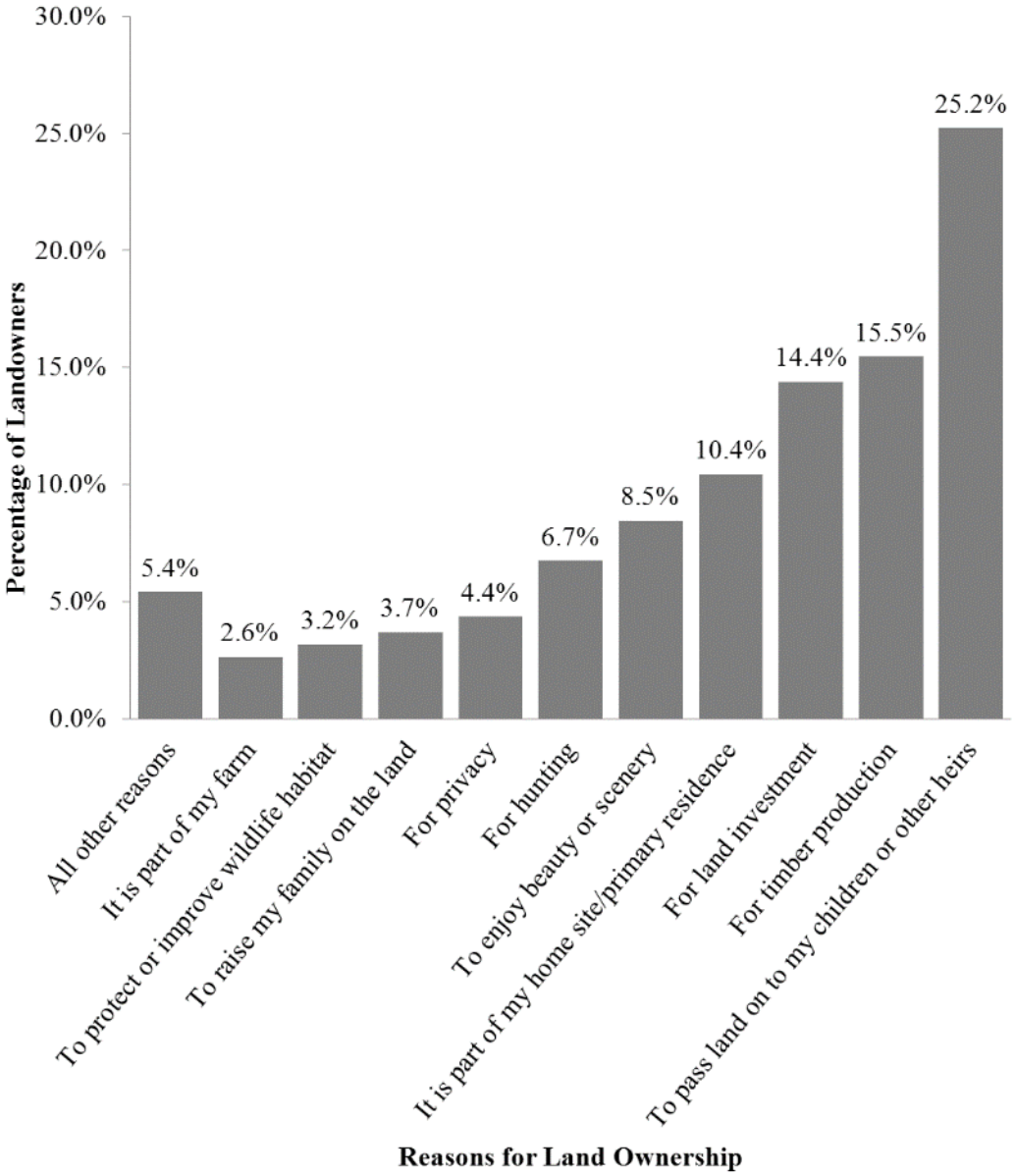

Figure 6.4 Distribution of NIPFs in Mississippi by most important reason for land ownership (N=758)

Landowners were also asked to identify how important each of the objectives were to them, and responses are shown in Table 6.2. For the sake of this study, it is important to note that almost exactly half (49.9%) of the respondents indicated that passing land on to their children or heirs was a very important reason for land ownership,

and an additional 30% labeled this an important reason. This reason was the most commonly cited by NIPFs as being either an important or very important reason for land ownership.

Table 6.2 The relative importance, by percentage, of reasons for land ownership for NIPF survey respondents in Mississippi

	Percent						
	Very important	Important	Neither important nor unimportant	Somewhat important	Not at all important	N/A	Total
To enjoy beauty or scenery (*N*=855)	36.68	36.30	7.83	11.30	4.44	3.39	100
For land investment (*N*=844)	33.50	37.70	7.57	8.88	6.98	5.33	100
For timber production (*N*=840)	28.00	35.40	9.39	13.56	8.68	4.99	100
To protect or improve wildlife habitat (*N*=854)	29.01	39.50	9.71	13.70	3.39	4.68	100
For nontimber forest products (*N*=852)	2.93	8.91	20.75	12.08	33.88	21.45	100
For firewood (*N*=851)	2.70	9.27	15.26	13.97	35.80	23.00	100
To protect water resources (*N*=853)	10.90	28.30	15.46	15.81	13.70	15.81	100
For hunting (*N*=855)	23.01	34.40	9.23	13.70	12.03	7.59	100
For recreation, other than hunting (*N*=852)	12.60	26.96	17.70	11.49	18.29	12.90	100
For privacy (*N*=860)	33.10	29.15	10.10	9.06	9.52	9.00	100
To pass land on to my children or heirs (*N*=876)	49.90	29.99	7.18	6.39	3.88	2.60	100
To raise my family on land (*N*=859)	21.40	16.80	11.51	7.50	18.90	24.00	100
It is part of my farm (*N*=842)	23.20	21.47	10.79	5.10	8.07	31.44	100
It is part of home site/primary residence (*N*=863)	27.66	14.35	7.41	1.97	11.11	37.40	100
It is part of my cabin or vacation home site (*N*=838)	7.27	8.22	9.89	3.46	13.11	58.05	100.00

Fifty-seven percent (N=877) of landowners reported they were actively managing their forestland, 23.8% (*N*=879) are working with a consulting forester, and 15.0% (*N*=878) have a written forest management plan. A cross tabs analysis with Pearson's chi-square suggested there was a significant relationship between working with a consulting forester and having a written forest management plans (chi-square with one degree of freedom = 189, $p < 0.05$). Of the landowners who indicated they were working with a consulting forester, 44.7% had a written forest management plan as opposed to 5.7% who had management plans and were not working with a consulting forester.

Plans and Activities Related to Land Transfer

Mississippi NIPFs were asked the following questions regarding their estate and succession planning activities: (1) Do you have a written last will and testament; (2) Have you created an estate plan; (3) Have you met with an attorney regarding passing on your land; (4) Have you met with a tax advisor to discuss passing on your land; and (5) Have you talked with your heirs about the future of your forestland. They were also asked to identify whether or not they had sold or gifted any of their forestland in the past 1 year, 5 years, 10 years, 15+ years. Further, they were asked to indicate whether or not they had plans to sell or gift any if their forestland in the next 1 year, 5 years, 10 years, 15+ years. Using the data collected from these questions, four yes/no questions were created: (1) Did NIPFs sell any of their forestland in the past (yes=1); (2) Did NIPFs gift any of their forestland in the past (yes=1); (3) Did NIPFs have plans of selling any of their forestland in the future (yes=1); and (4) Did NIPFs plan to gift any of their forestland in the future (yes=1).

Each of these estate and/or succession planning activities was tested for a statistically significant relationship with each of the independent variables in Table 6.3. Gifting and selling activities and plans were also tested against each of these variables.

Table 6.3 Descriptive statistics for independent variables used to investigate NIPFs' activities and plans regarding land transfer in Mississippi.

Variable	Variable Description	Mean	Std. Deviation
Age	Continuous variable indicating the age of the respondent in years	66.9	11.66
Forested Acres	Continuous variable indicating total acres of forested land owned by the respondent	166.19	373.70
Total Acres	Continuous variable indicating total acres of all land (forested and non-forested) owned by the respondent	275.92	643.99
Ownership Tenure	Continuous variable indicating the number of years since the respondent first acquired their forestland	24.04	15.00
Inherit	Binary variable indicating whether or not some or all of the respondent's property was inherited (1=yes; 0=no), recoded from original four options from survey question 12. Respondents who selected Inherited or indicated "inherited" as part of the Other response were coded "1." Those who selected Purchased, Received as gift, and Other (no specification of inherited) were coded "0."	.44	-
Raised	Binary variable indicating whether or not the respondent was raised on or near the property they own (1=yes; 0=no)	.52	-
Children	Binary variable indicating whether or not the respondent has children (1=yes; 0=no), recoded from survey question 33. Respondents who indicated 1 or more were coded "1," and those who wrote 0 were coded "0."	.92	-
Pass to heirs	Binary variable indicating whether or not the respondent found "passing land to children or other heirs" to be and important or very important reason for land ownership (1=yes; 0=no), recoded from survey question 21a, part k. Respondents who indicated very important or important were coded "1." Respondents who selected any of the other categories were coded "0."	.80	-

Estate and Succession Management Planning

The following distributions of NIPFs are presented by estate or succession planning activity in Figure 6.5. Majority (66.8%) of NIPFs had a written will and testament, but only 35.3% had created an estate plan. Less than half (46.3%) had met with an attorney regarding passing on their land, and even fewer (24%) had met with a tax advisor to discuss this topic. Over half (62.5%), however, had talked with their heirs about the future of their forestland.

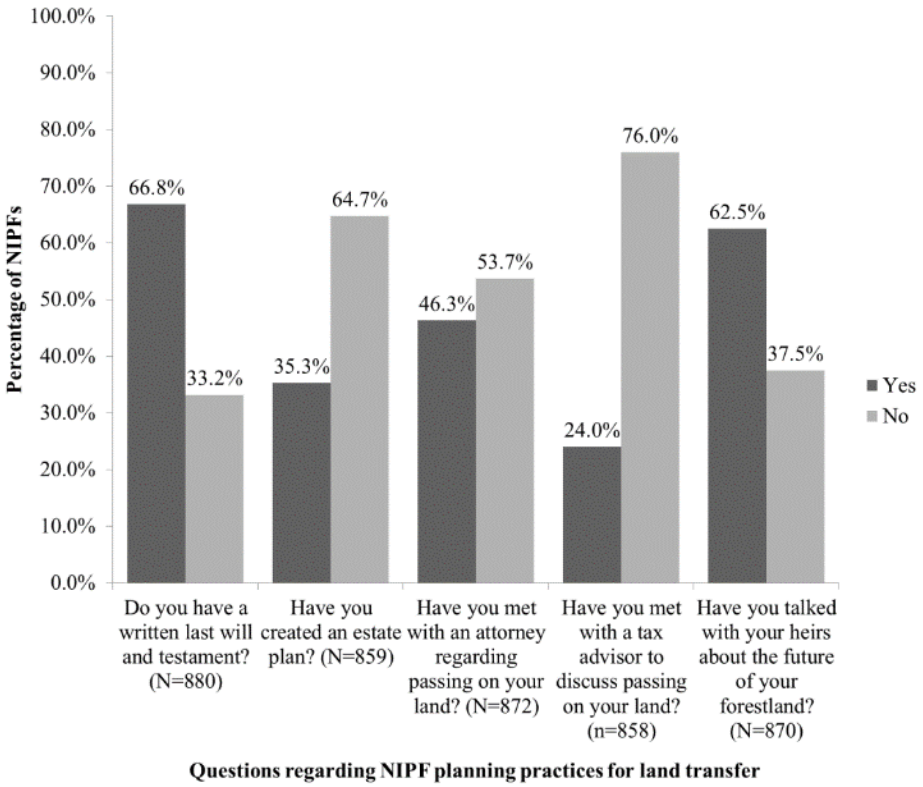

Figure 6.5 Distribution of Mississippi NIPF survey respondents regarding estate and succession management planning activities

Each of the planning activities was tested for statistically significant relationships with **Inherit**, **Raised**, **Children**, and **Pass to Heirs** using cross-tabulations with Pearson's Chi-square. **Age, Forested Acres, Total Acres,** and **Ownership Tenure** were investigated using simple univariate logistic regression.

Written Will and Testament

The mean age of NIPFs *having a written will and testament* was 69 years while the mean age of those without a will was 62 years. When respondents were grouped by 10-year age categories, the distribution of respondents with wills increased with each category. While only 29.4% of respondents in the category 31-40 years had written wills, 100% of those in the category 91-100 years had written wills (Figure 6.6). There was a similar trend in ownership tenure. The mean ownership tenure of NIPFs without a written will was 20 years while the mean ownership tenure of those with written wills was 26 years. When ownership tenure was broken into categories of 10 years, there was an overall increase in the distribution of NIPFs with written wills as tenure increased (Figure 6.7). The mean forested acreage of NIPFs *having a written will* was 203.4 acres while those without wills was 95.3 acres. Similarly, the mean total ownership acreage for NIPFs with written wills was 348.2 acres and 138.9 acres for those without written wills.

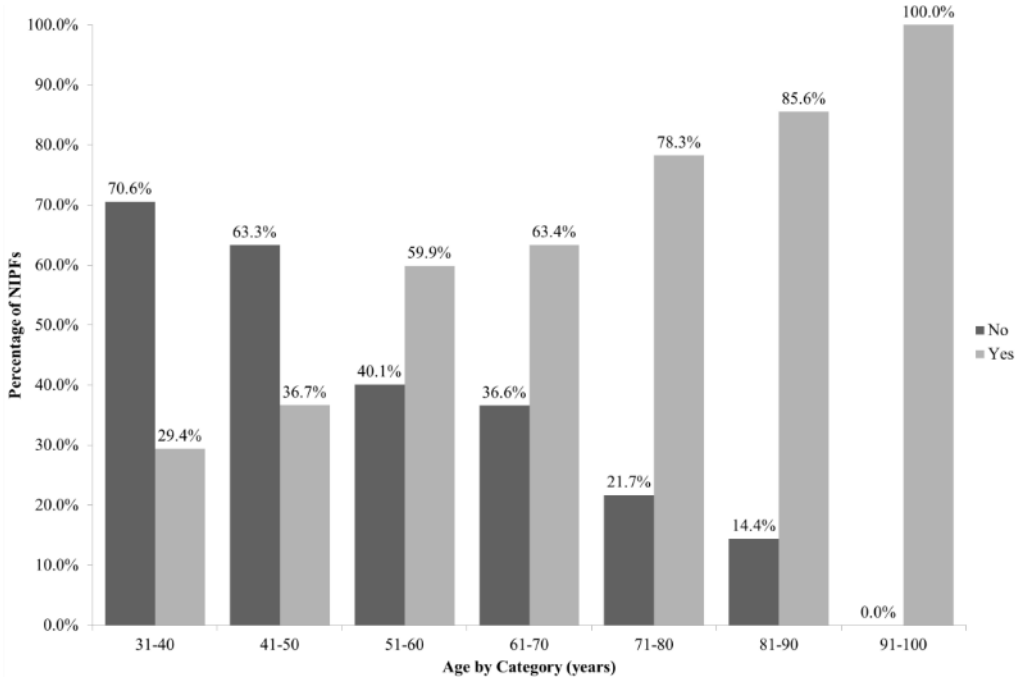

Figure 6.6 Distribution of Mississippi NIPF survey respondents with a written last will and testament, shown by categories of NIPF respondent age (*N*=860)

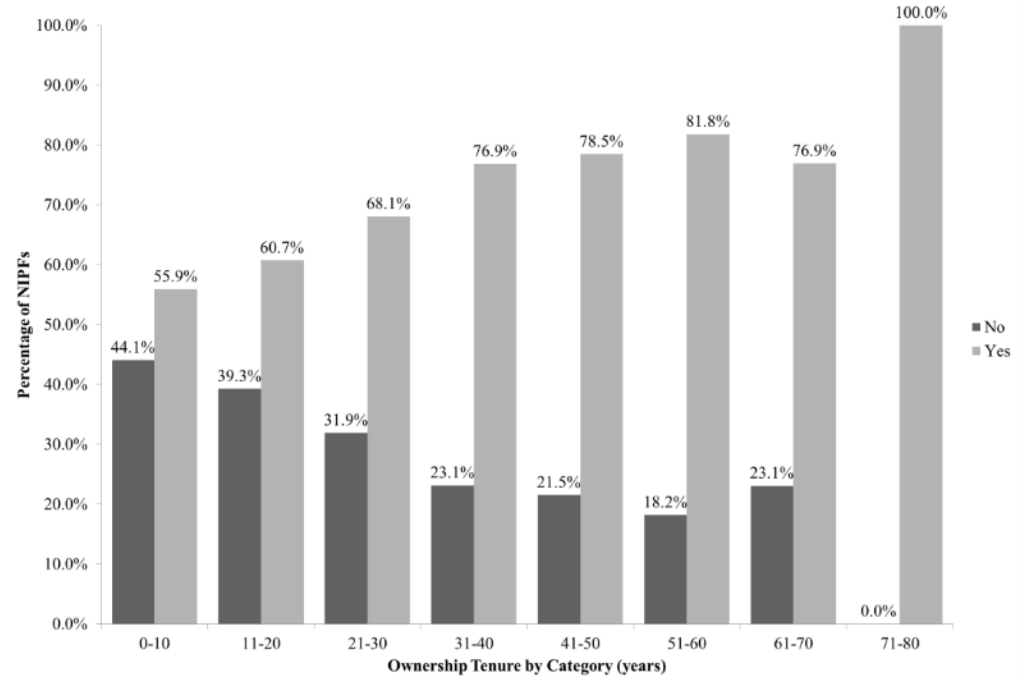

Figure 6.7 Distribution of Mississippi NIPF survey respondents with a written last will and testament, shown by categories of ownership tenure (*N*=803)

A simple logistic regression indicated **Age** was a statistically significant predictor of NIPFs in Mississippi *having a written will and testament* (Wald=64.869, Exp(B)=1.058, $p<0.05$). The probability that NIPFs *had a written will and testament* increased by 5.8% with each increase of 1 year in age above the mean. **Forested Acres** (Wald = 17.453, Exp(B)=1.002, $p<0.05$) and **Total Acres** (Wald = 24.693, Exp(B)=1.002, $p<0.05$) were also statistically significant predictors of *having a written will and testament.* The probability that NIPFs *had a written will and testament* increased by 0.2% with each increase of 1 acre (forested or otherwise). Likewise, **Ownership Tenure** was a statistically significant predictor of NIPFs in Mississippi *having a written will and testament* (Wald=25.721, Exp(B)=1.028, $p<0.05$). Each increase in one year of ownership tenure above the mean increased the probability that NIPFs *had a written will and testament* by 2.8%. A summary of these regression results is presented in Table 6.5 on page 54

Estate Plan

The mean age of NIPFs *having an estate plan* was 69 years while the mean age of those without estate plans was 65 years. When respondents were grouped by 10-year age categories, there was an overall increase in the distribution of respondents who had estate plans from the 31-40 year age category (11.8%) to the 91-100 year age category (60.0%; Figure 6.8). The mean ownership tenure of NIPFs without an estate plan was 23 years, while the mean ownership tenure of those with estate plans was 26 years. The mean forested acreage of NIPFs *having an estate plan* was 270.9 acres, while the mean for those without estate plans was 113.9 acres. Similarly, the mean total ownership acreage for NIPFs with estate plans was 476.3 acres and 176.6 acres for those without estate

plans. Total and forested acreages for NIPFs were broken into categories of: (1) <100 acres; (2) 100-500 acres; and (3) >500 acres. The distributions of NIPFs with estate plans increased across the increasing categories in both total and forested acres (Figures 6.9 and 6.10).

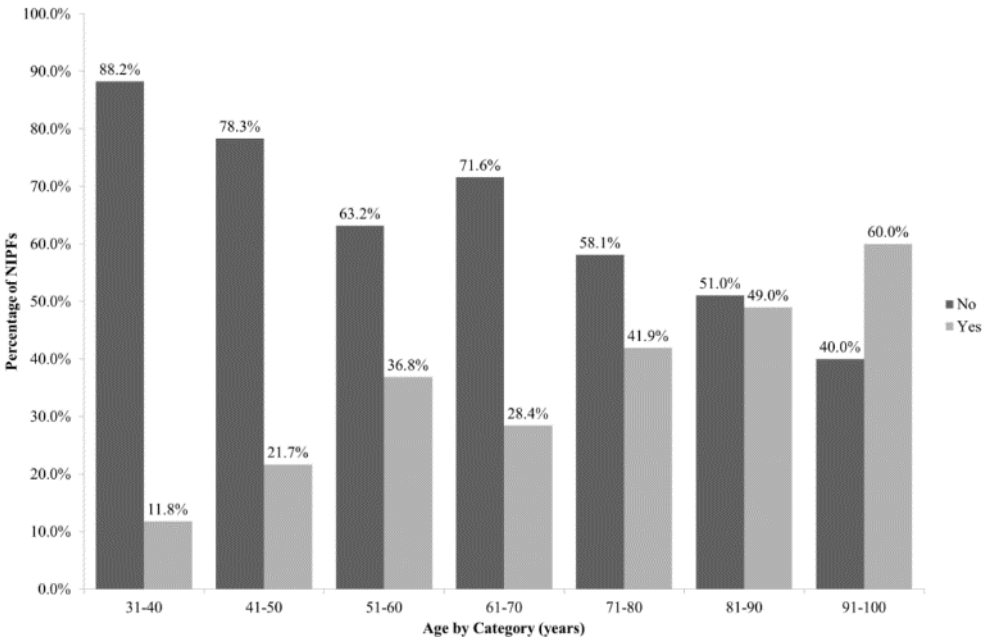

Figure 6.8 Distribution of Mississippi NIPF survey respondents with an estate plan, grouped by categories of NIPF respondent age (*N*=842)

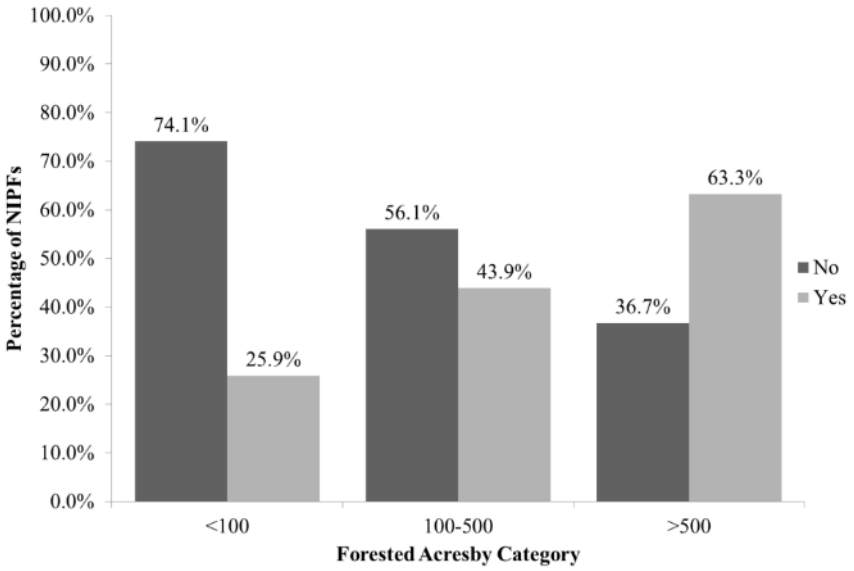

Figure 6.9 Distribution of Mississippi NIPF survey respondents with an estate plan, grouped by categories of forested acreage in ownership (*N*=768)

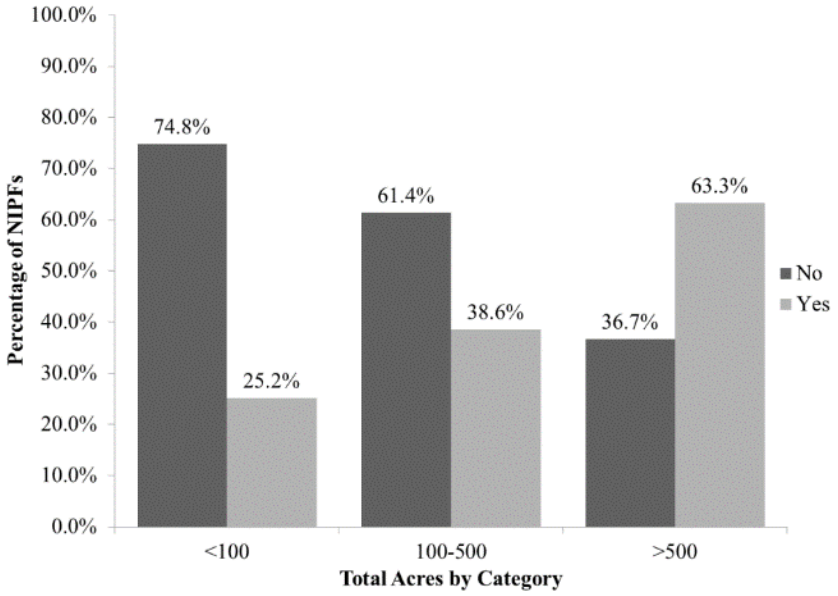

Figure 6.10 Distribution of Mississippi NIPF survey respondents with an estate plan, grouped by categories of total acreage in ownership (*N*=850)

According to simple logistic regression, the following independent variables were statistically significant predictors of NIPFs in Mississippi *having an estate plan*: (1) **Age** (Wald=16.298, Exp(B)=1.026, $p<0.05$); (2) **Forested Acres** (Wald=23.030, Exp(B)=1.002, $p<0.05$); (3) **Total Acres** (Wald=31.717, Exp(B)=1.001, $p<0.05$); and (3) **Ownership Tenure** (Wald=8.290, Exp(B)=1.014, $p<0.05$). With each increase of one year in age above the mean, the probability that NIPFs *had an estate plan* increased by 2.6%. The probability of *having an estate plan* also increased by 0.2% with each increase in one forested acre, and by 0.1% with each one acre increase in total ownership. An increase of one year in ownership tenure increased the probability that NIPFs *had an estate plan* by1.4%. Based on cross tabs with Pearson's chi-square, **Pass to heirs**, **Inherit**, **Raised**, and **Children** did not have statistically significant relationships with NIPFs *having an estate plan*.

Attorney

Only 39.2% of NIPF respondents who did not consider passing their land to heirs to be an important or very important reason for owning land *had met with an attorney*, while 47.8% of NIPF respondents who considered passing their land to heirs to be an important or very important reason for owning land *had met with an attorney*. Cross tabs with Pearson's chi-square suggested that these distributions were significantly different, and the relationship between **Pass to heirs** and NIPFs *having met with an attorney regarding passing on their land* was statistically significant (chi-square with one degree of freedom = 4.063, $p<0.05$). **Inherit**, **Raised**, and **Children** did not have statistically significant relationships with NIPFs *having met with an attorney regarding passing on their land.*

The mean age of NIPFs who had *met with an attorney regarding land transfer* was 69 years while the mean age of those who had not was 64 years. Figure 6.11 shows that when respondents were grouped by 10-year age categories, there was an overall increase in the distribution of respondents who had *met with an attorney regarding land transfer* from the 31-40 year age category (11.8%) to the 91-100 year age category (72.7%). The mean ownership tenure of NIPFs who had not met with an attorney was 22 years while the mean ownership tenure of those who had was 27 years. The mean forested acreage of NIPFs who *had met with an attorney regarding land transfer* was 234.2 acres while the mean for those who had not was 106.6 acres. Similarly, the mean total ownership acreage for NIPFs who had met with an attorney was 418.1 acres and 156.9 acres for those who had not. Total and forested acreages for NIPFs were broken into categories of: (1) <100 acres; (2) 100-500 acres; and (3) >500 acres. The distributions of NIPFs with estate plans increased across the increasing categories in both total and forested acres (Figures 6.12 and 6.13).

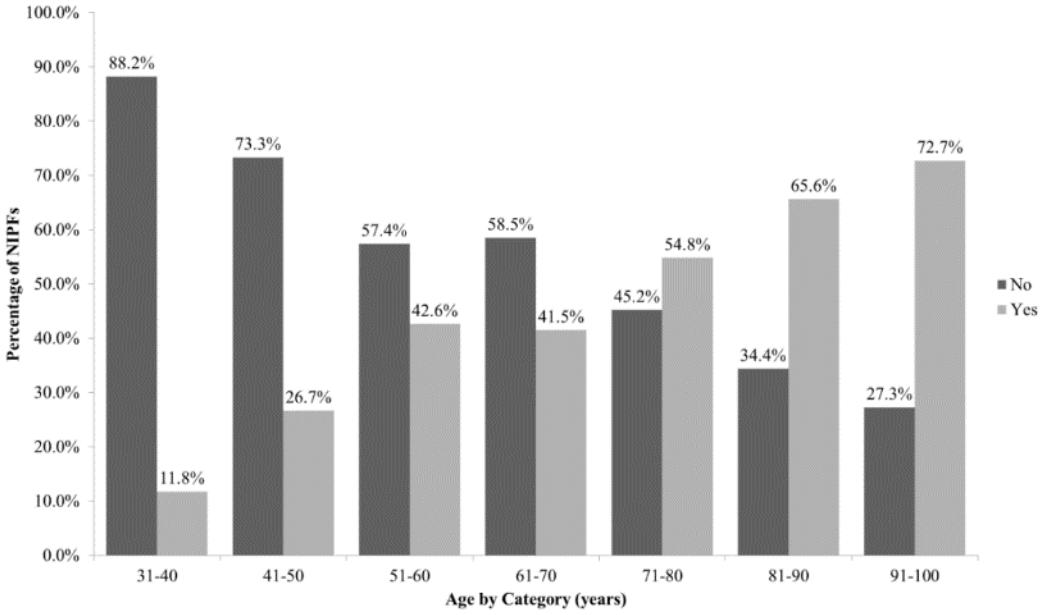

Figure 6.11 Distribution of Mississippi NIPF survey respondents who have met with an attorney regarding land transfer, shown by categories of NIPF respondent age (*N*=854)

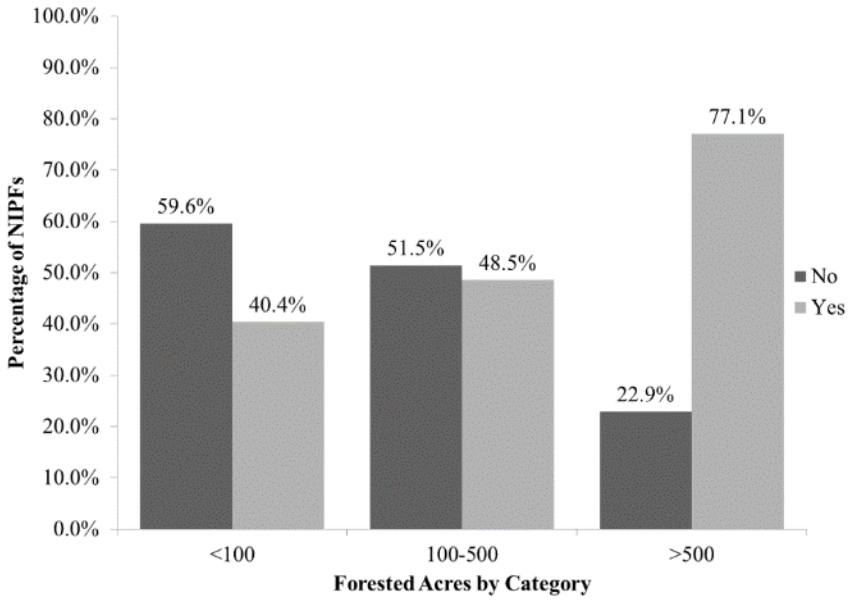

Figure 6.12 Distribution of Mississippi NIPF survey respondents who have met with an attorney regarding passing on their land, grouped by categories of forested acreage in ownership (*N*=780)

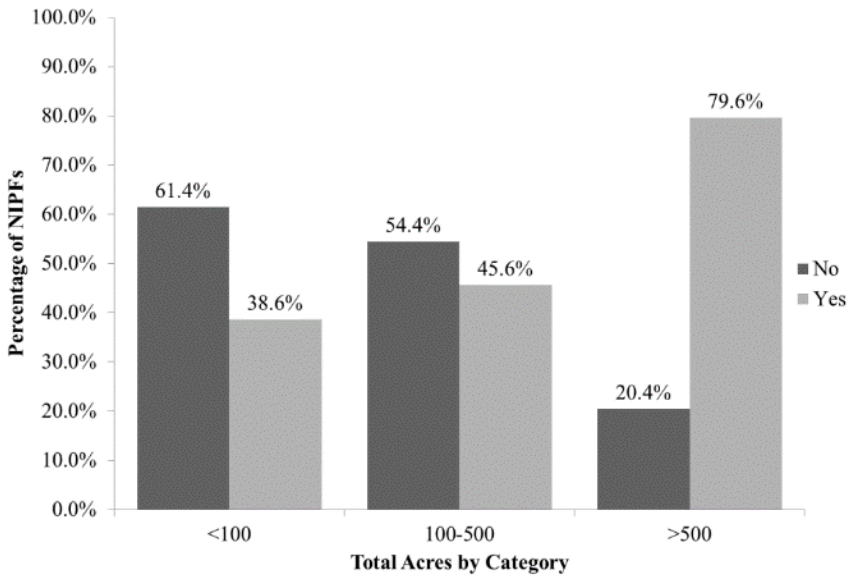

Figure 6.13 Distribution of Mississippi NIPF survey respondents who have met with an attorney regarding passing on their land, grouped by categories of total acreage in ownership (*N*=861)

As shown by simple logistic regression, **Age** was a statistically significant predictor of NIPFs in Mississippi *having met with an attorney regarding passing on their land* (Wald=39.580, Exp(B)=1.041, p<0.05). The probability that NIPFs *had met with an attorney regarding land transfer* increased by 4.1% with each increase of one year in age. Both **Forested Acres** (Wald = 22.084, Exp(B)=1.002, p<0.05) and **Total Acres** (Wald = 33.489, Exp(B)=1.002, p<0.05) were statistically significant predictors of *having met with an attorney regarding passing on their land.* The probability that NIPFs *had met with an attorney regarding passing on their land* increased by 0.2% with each acre of forested acreage and total acreage. **Ownership Tenure** was also a statistically significant predictor of NIPFs in Mississippi *having met with an attorney regarding passing on their land* (Wald=18.271, B=0.021, p<0.05). The probability that NIPF

respondents *had met with an attorney regarding land transfer* increased by 2.1% with each increase of one year in ownership tenure.

Tax Advisor

The mean forested acreage of NIPFs who had *met with a tax advisor to discuss passing on their land* was 349.4 acres while the mean for those who had not was 113.1 acres. Similarly, the mean total ownership acreage for NIPFs who had *met with a tax advisor to discuss passing on their land* was 595.7 acres and 182.7 acres for those who had not. Total and forested acreages for NIPFs were broken into categories of: (1) <100 acres; (2) 100-500 acres; and (3) >500 acres. The distributions of NIPFs who had *met with a tax advisor to discuss passing on their land* increased across the increasing categories in both total and forested acres (Figures 6.14 and 6.15). The mean ownership tenure of NIPFs who had not met with a tax advisor was 23 years while the mean ownership tenure of those who had was 26 years.

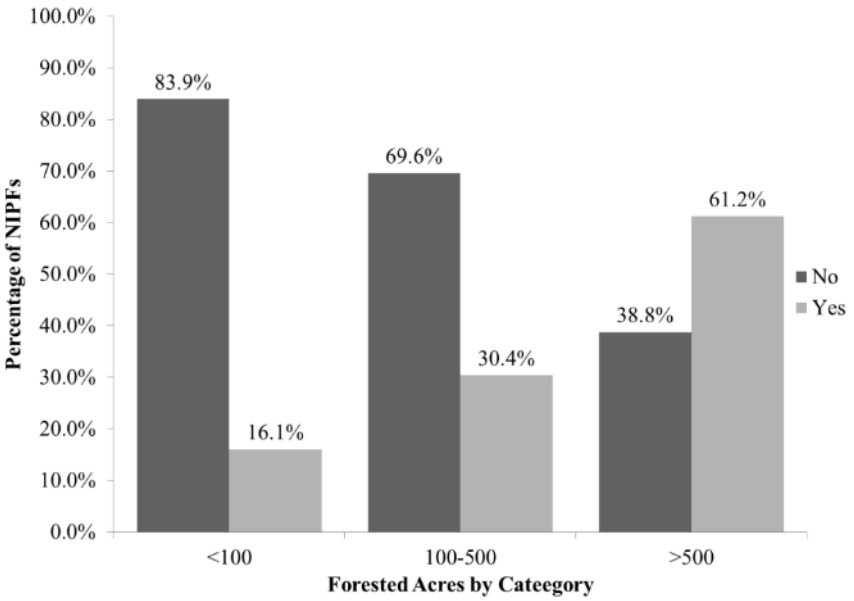

Figure 6.14 Distribution of Mississippi NIPF survey respondents who have met with a tax advisor to discuss passing on their land, grouped by categories of forested acreage in ownership (*N*=770)

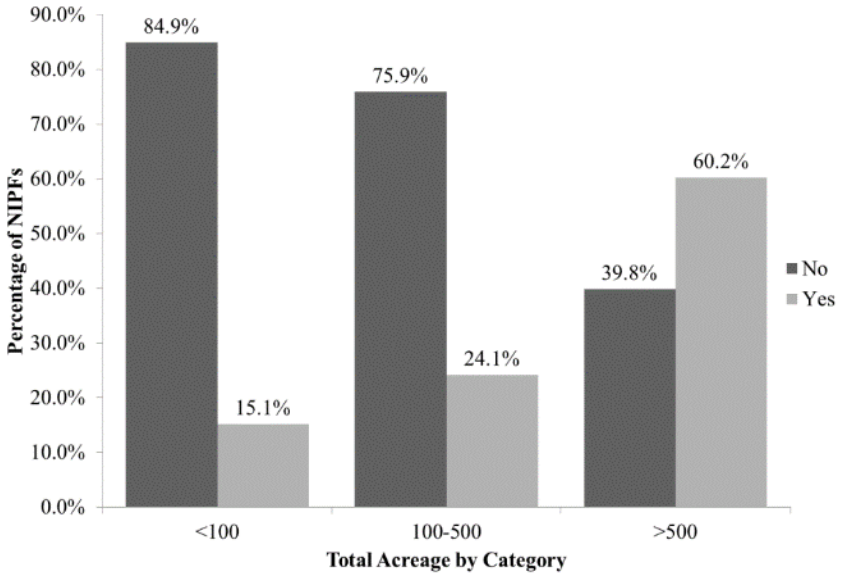

Figure 6.15 Distribution of Mississippi NIPF survey respondents who have met with a tax advisor to discuss passing on their land, shown by categories of total acreage (*N*=849)

Forested Acres was a statistically significant predictor of NIPFs in Mississippi *having met with a tax advisor to discuss passing on their land* (Wald=36.111, Exp(B)=1.002, $p<0.05$). The probability that NIPFs *had met with a tax advisor* increased by 0.2% with each increase of one forested acre above the mean. **Total Acres** was also a statistically significant predictor that NIPFs in Mississippi *had met with a tax advisor to discuss passing on their land* (Wald=39.781, Exp(B)=1.001, $p<0.05$). The probability of NIPFs *having met with a tax advisor* increased by 0.1% with each increase of one acre of total land ownership. **Ownership Tenure** was a statistically significant predictor (Wald=5.103, Exp(B)=1.013, $p<0.05$). The probability that NIPFs *had met with a tax advisor* increased by 1.3% with each increase of one year in ownership tenure. **Age** was not a statistically significant predictor, and there were no statistically significant relationships between **Inherit**, **Raised**, **Children**, and **Pass to heirs** and NIPFs *having met with a tax advisor to discuss passing on their land*.

Talked with Heirs

The mean age of NIPFs who had *talked with their heirs about the future of their forestland* was 68 years while the mean age of those who had not was 64 years. When respondents were grouped by 10-year age categories, the distribution of respondents who had talked with heirs increased with each category. While only 17.6% of respondents in the category 31-40 years had talked with heirs, 81.8% of those in the category 91-100 years had talked with heirs (Figure 6.16). The mean ownership tenure of NIPFs who had not talked to their heirs was 22 years while the mean ownership tenure of those who had talked with their heirs was 25 years. The mean forested acreage of NIPFs who had *talked with their heirs about the future of their forestland* was 206.0 acres while the mean for

those who had not talked to heirs was 105.0 acres. Similarly, the mean total ownership acreage for NIPFs who had talked to heirs was 327.3 acres and 200.9 acres for those who had not. Forested acreage for NIPFs was broken into categories of: (1) <100 acres; (2) 100-500 acres; and (3) >500 acres. The distributions of NIPFs who had *talked with their heirs about the future of their forestland* increased across the increasing categories in forested acres (Figure 6.17).

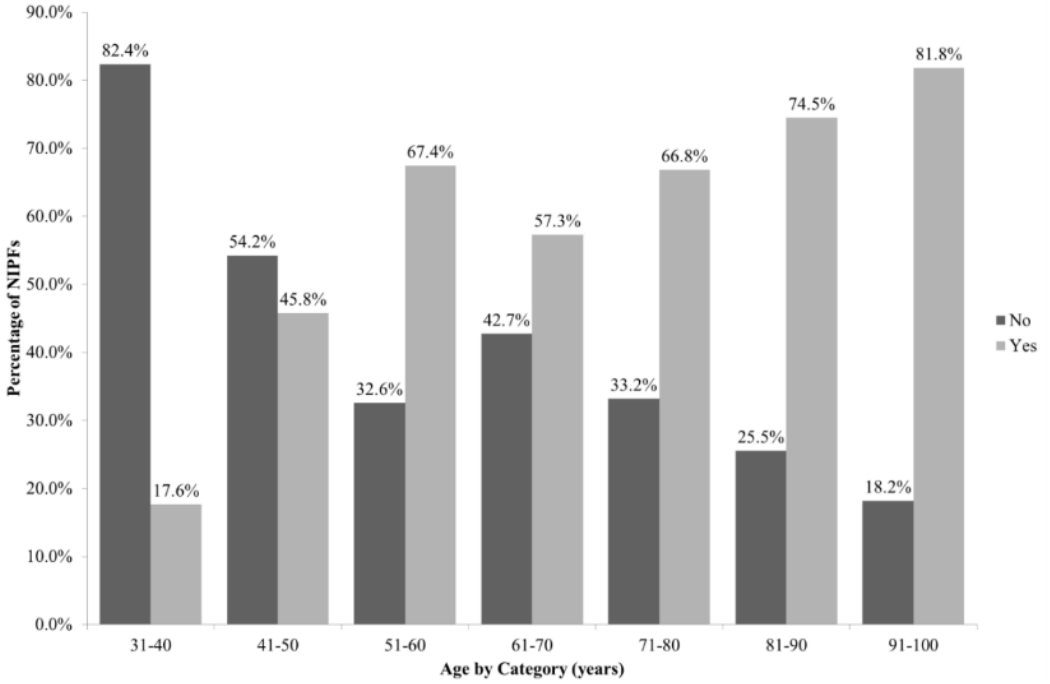

Figure 6.16 Distribution of Mississippi NIPF survey respondents who have talked with heirs about the future of their forestland, shown by categories of NIPF respondent age (*N*=851)

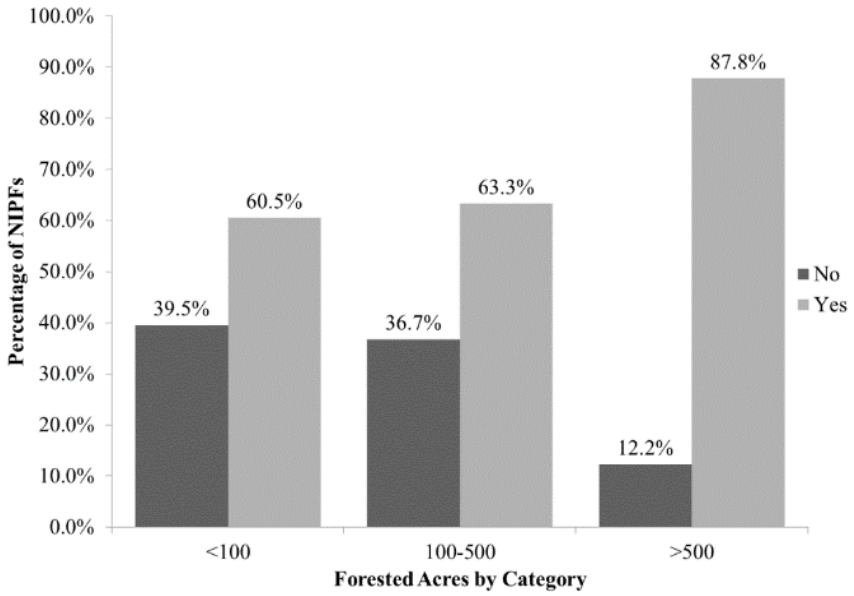

Figure 6.17 Distribution of Mississippi NIPF survey respondents who have talked with heirs about the future of their forestland, shown by categories of forested acreage (*N*=777)

Cross tabs with Pearson's chi-square suggested that the following had statistically significant relationships with NIPFs in Mississippi *having talked with their heirs about the future of their forestland*: (1) **Inherit** (chi-square with one degree of freedom = 5.402, $p<0.05$); (2) **Children** (chi-square with one degree of freedom = 23.549, $p<0.05$); and (3) **Pass to heirs** (chi-square with one degree of freedom = 52.221, $p<0.05$). The distribution of NIPFs who had talked with their heirs is shown in Table 6.4 by the variables **Inherit**, **Children**, and **Pass to Heirs**.

Table 6.4 Contingency table showing the distribution of Mississippi NIPF survey respondents who have talked with heirs about the future of their forestland, shown by binary variables **Inherit**, **Children**, and **Pass to heirs**

		Had NIPF respondents talked with their heirs about the future of their forestland?			
		No	Yes	*N*	χ^2
		----------%----------			
Inherit	**No**	40.7	59.3	851	5.402*
	Yes	33.0	67.0		
Raised	**No**	39.7	60.3	850	1.585
	Yes	35.5	64.5		
Children	**No**	64.3	35.7	853	23.549*
	Yes	35.0	65.0		
Pass to heirs	**No**	60.6	39.4	846	52.221*
	Yes	31.2	68.8		

*Significant at $\alpha = 0.05$

Age was a statistically significant predictor of NIPFs in Mississippi *having talked with their heirs about the future of their forestland* (Wald=18.371, Exp(B)=1.027, p<0.05). The probability that NIPFs *had talked with their heirs about the future of their forestland* increased by 2.7% with each increase of one year in age above the mean. Both **Forested Acres** (Wald = 13.652, Exp(B)=1.002, p<0.05) and **Total Acres** (Wald = 7.041, Exp(B)=1.001, p<0.05) were statistically significant predictors of NIPFs *having talked with their heirs about the future of their forestland.* With an increase of one forested acre, the probability that NIPFs *had talked with their heirs about the future of their forestland* increased by 0.2%. With an increase in one acre in total ownership above the mean, the probability that NIPFs *had talked with their heirs* increased by 0.1%. Likewise, **Ownership Tenure** was a statistically significant predictor of respondents

having talked with their heirs about the future of their forestland (Wald=7.272, Exp(B)=1.014, $p<0.05$), and the probability that NIPFs had *talked with their heirs about the future of their forestland* increased by 1.4% with each increase in one year of age. **Forested Acres** and **Total Acres** were not statistically significant predictors of NIPFs *having talked with their heirs about the future of their forestland.*

Table 6.5 Results from univariate logistic regression analyses investigating the relationship between estate and succession planning activities and demographic, ownership, and property characteristics.

	Will		Estate Plan		Attorney		Tax Advisor		Talked with Heirs	
	Wald	**Exp(B)**	**Wald**	**Exp(B)**	**Wald**	**Exp(B)**	**Wald**	**Exp(B)**	**Wald**	**Exp(B)**
Age	64.869	1.058*	16.298	1.026*	39.580	1.041*	0.268	1.004	18.371	1.027*
Forested Acres	17.453	1.002*	23.030	1.002*	22.084	1.002*	36.111	1.002*	13.652	1.002*
Total Acres	24.693	1.002*	31.717	1.001*	33.489	1.002*	39.781	1.001*	7.041	1.001*
Ownership Tenure	25.721	1.028*	8.290	1.014*	18.271	1.021*	5.103	1.013*	7.272	1.014*

*significant at $\alpha = 0.05$

Selling and Gifting Forestland – Past Activity and Future Plans

Respondents were also asked to indicate whether or not they had sold or gifted any of their forestland in the past, or if they plan to gift or sell any of their forestland in the future. Only 6.4% of NIPF respondents indicated that they had sold any of their forestland in the past, and 5.7% responded that they had gifted some of their forestland in the past (Figure 6.18). When asked to indicate whether or not they were planning to gift or sell any of their forested property in the future, 10.4% indicated they had plans to sell some or all of their forested property, and 26.3% had plans to gift some or all of their forested property (Figure 6.18).

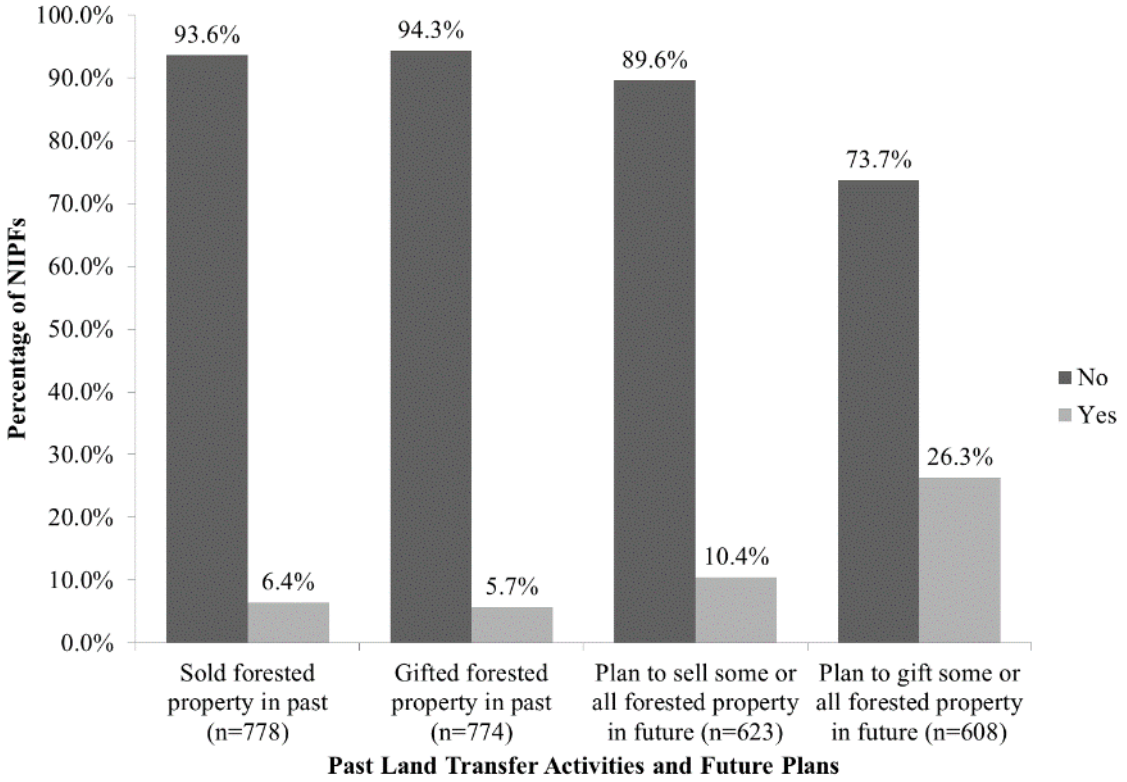

Figure 6.18 Distribution of Mississippi NIPF survey respondents by past activities of selling and gifting land and future plans of selling and gifting land

The following independent variables (Table 6.3) were tested for significant relationships with past land transfer activities and future plans for land transfer: (1) **Age**; (2) **Forested Acres** (3) **Total Acres**; (4) **Ownership Tenure**; (5) **Inherit**; (6) **Raised**; (7) **Children**; and (8) **Pass to heirs**. **Age, Forested Acres, Total Acres,** and **Ownership Tenure** were investigated using simple logistic regression. **Inherit**, **Raised**, and **Children** were investigated using cross-tabulations with Pearson's Chi-square. A summary of the univariate logistic regression analyses is shown in Table 6.8.

Past Gifting and Selling of Forestland

There were no statistically significant relationships between the independent variables tested and whether or not NIPFs in Mississippi *had sold any of their forested property in the past.*

The mean age of NIPFs who *had gifted forested property in the past* was 70 years while the mean age of those who had not was 66 years. The mean forested acreage of NIPFS who *had gifted forested property in the past* and those who had not was 423.1acres and 158.1 acres, respectively. Similarly, the mean acreage in total ownership for those NIPFs who *had gifted forested property in the past was* 656.9 acres while the mean of those who had not was 266.4 acres. Simple logistic regression indicated that each of those variables was a statistically significant predictor of whether or not NIPFs *had gifted forested property in the past*: (1) **Age** (Wald=4.964, Exp(B)=1.033, $p<0.05$); (2) **Forested Acres** (Wald =10.909; Exp(B)=1.001, $p<0.05$); and (3) **Total Acres** (Wald=7.400, Exp(B)=1.000, $p<0.05$). The probability of NIPFs *having gifted forested property in the past* increased by 3.3% with each increase of one year in age above the mean. The probability increased by 0.1% with each increase of one forested acre, and

there is no increase in the probability of *having gifted forested property in the past* with each increasing acre in total ownership. Cross tabs with Pearson's chi-square computations indicated that **Inherit, Raised, Children**, and **Pass to heirs** did not have statistically significant relationships with NIPFs past gifting.

Future Plans for Gifting and Selling of Forestland

Using cross tabs with Pearson's chi-square, **Pass to heirs** was the only independent variable found to have a statistically significant relationship with NIPF respondents *planning to sell some or all of their forestland in the future* (chi-square with one degree of freedom = 25.908, $p<0.05$). A contingency table is shown below which summarizes distributions within all variables (Table 6.6). The percentage of NIPFs *planning to sell some or all of their forested property* was higher (23.1%) in the group of NIPFs who did not consider passing land to heirs to be an important or very important reason for land ownership than in the group of NIPFs who did consider passing to heirs to be important (17.3%).

Table 6.6 Contingency table showing the distribution of Mississippi NIPF survey respondents who plan to sell some or all of their forested property in the future, shown by binary variables **Inherit**, **Raised**, **Children**, and **Pass to heirs**

		Do NIPF respondents plan to sell some or all of their forested property in the future?			
		No	**Yes**	***N***	χ^2
		----------%	----------		
Inherit	**No**	90.0	10.0	612	0.171
	Yes	89.0	11.0		
Raised	**No**	88.0	12.0	610	1.430
	Yes	91.0	9.0		
Children	**No**	88.0	12.0	615	0.183
	Yes	89.9	10.1		
Pass to heirs	**No**	76.9	23.1	612	25.908*
	Yes	92.7	7.3		

*Significant at $\alpha = 0.05$

The following independent variables had statistically significant relationships with NIPF *planning to gift forested property in the future*: (1) **Inherit** (chi-square with one degree of freedom = 11.875, $p<0.05$); (2) **Raised** (chi-square with one degree of freedom = 4.696, $p<0.05$); (3) **Children** (chi-square with one degree of freedom =4.466, $p<0.05$); and (4) **Pass to heirs** (chi-square with one degree of freedom = 3.959, $p<0.05$)**.** Distributions are summarized in Table 6.7. Nearly 34% of NIPF respondents who had inherited some or all of their forestland were *planning to gift forested property in the future*, while only 21.3% of those who did not inherit any of their property were *planning to gift forested property in the future.* Similarly, 30.7% of NIPFs who were raised on or near their land were *planning to gift forested property in the future,* and only 22.8% of NIPFs who were not raised on or near the forestland were *planning to gift forested*

property in the future. There was a greater distribution of respondents who were *planning to gift forested property in the future* who had children (27.3%) than those without children (13.7%). The distribution of NIPFs *planning to gift forested property in the future* who considered passing land to their heirs an important or very important reason for land ownership (28.5%) was also greater than the distribution of NIPFs who did not consider passing land to be important or very important (19.5%). Simple logistic regression suggested that **Age, Forested Acres, Total Acres,** and **Ownership Tenure** were not statistically significant predictors of whether NIPF respondents were *planning to gift forested property in the future*.

Table 6.7 Contingency table showing the distribution of Mississippi NIPF survey respondents who plan to gift some or all of their forested property in the future, shown by binary variables **Inherit**, **Raised**, **Children**, and **Pass to heirs**

		Do NIPF respondents plan to gift some or all of their forested property in the future?			
		No	**Yes**	***N***	χ^2
		----------%	----------		
Inherit	**No**	78.7	21.3	598	11.875*
	Yes	66.2	33.8		
Raised	**No**	77.2	22.8	596	4.696*
	Yes	69.3	30.7		
Children	**No**	86.3	13.7	601	4.466*
	Yes	72.7	27.3		
Pass to heirs	**No**	80.5	19.5	599	3.959*
	Yes	71.5	28.5		

*significant at $\alpha = 0.05$

Table 6.8 Results from univariate logistic regression analyses investigating the relationship between estate and succession planning activities and demographic, ownership, and property characteristics of Mississippi NIPFs

	Sold Past		Gifted Past		Sell Future		Gift Future	
	Wald	**Exp(B)**	**Wald**	**Exp(B)**	**Wald**	**Exp(B)**	**Wald**	**Exp(B)**
Age	0.107	1.004	4.964	1.033*	0.054	0.997	0.353	0.995
Forested Acres	1.184	1.000	10.909	1.001*	0.105	1.000	3.341	1.000
Total Acres	0.366	1.000	7.400	1.000*	0.027	1.000	1.098	1.000
Ownership Tenure	0.869	1.009	2.195	1.016	0.649	0.992	0.788	1.006

*significant at $\alpha = 0.05$

Educational Outreach

NIPF survey participants were provided a list of information sources and were asked to indicate whether or not they had used each of the sources to obtain information from MSU about managing their forestland. The most commonly used information sources were county forestry programs (30.7%) and brochures or newsletters received in the mail (26.6%; Table 6.9). Magazine articles (22.0%), face-to-face seminars or workshops (15.9%), and newspapers (15.4%) round out the top five sources of information (Table 6.9). Only 1.1% of NIPF respondents reported using posted videos for information; however, 12.2% had used Internet information or websites (Table 6.9).

Table 6.9 Distribution of NIPF survey respondents based on use of information sources

	---------%---------	
Information Source	**Yes**	**No**
Brochure/newsletter received in the mail (*N*=856)	26.6%	73.4%
Publication/book (*N*=839)	15.3%	84.7%
Newspaper (*N*=835)	15.4%	84.6%
Magazine article (*N*=840)	22.0%	78.0%
County forestry program (*N*=849)	30.7%	69.3%
Seminar/workshop: face-to-face (*N*=849)	15.9%	84.1%
Seminar/workshop: webinar (837)	3.5%	96.5%
Field tour (*N*=846)	12.2%	87.8%
Television program (*N*=847)	11.3%	88.7%
Radio program (*N*=843)	3.6%	96.4%
DVD for home viewing (*N*=845)	2.1%	97.9%
Computer CD-ROM (*N*=844)	1.%	98.1%
Internet information/website (*N*=847)	12.2%	87.8%
Posted videos (*N*=836)	1.1%	98.9%

NIPF survey participants were also asked to indicate whether or not they had ever attended an MSU Extension program, and 21.7% (*N*=885) reported that they had. Survey participants were also asked to rate their level of interest in a list of Extension programs (Table 6.10). The five programs with the highest distribution of NIPFs who were either interested or very interested were: (1) Marketing and Harvesting of Timber (54.2%); (2) Forest Health (52.6%); (3) Forest Regeneration (50.3%); (4) Best Management Practices (49.9%); and (5) Analyzing Forest Investments (49.0%). For the sake of discussion related to educational outreach focused on land transfer, it is important to note that nearly half (47.6%) were either interested or very interested in the program titled Forest Taxation and Estate Planning Basics (Table 6.10). Similarly, 43.8% were either interested or very interested in the program regarding Managing the Family Forest.

Table 6.10 Relative interest of Mississippi NIPF survey respondents toward Extension Forestry programs

	Percent						
	Very interested	Interested	Neither interested nor uninterested	Somewhat interested	Not at all interested	N/A	Total
Analyzing forest investments (n=850)	19.53	29.53	11.65	12.00	14.12	13.18	100
Forest herbicides (n=842)	9.38	25.30	17.81	13.06	18.29	16.15	100
Forest Regeneration (n=829)	15.92	34.50	12.06	10.62	13.15	13.75	100
Forest Taxation and Estate Planning Basics (n=838)	18.26	29.36	11.93	9.67	15.63	15.16	100
How to Manage Pine Plantations (n=839)	16.81	28.25	12.16	9.30	15.97	17.52	100
Intensive Management for Biomass (n=832)	5.29	12.74	25.48	10.10	24.04	22.36	100
Growing Hardwoods on CRP (n=834)	9.23	17.03	20.38	9.59	22.66	21.10	100
Marketing & Harvesting of Timber (n=846)	21.99	32.27	8.63	9.69	13.59	13.83	100
Timber Tax Findamentals (n=843)	17.91	29.42	11.86	8.42	16.01	16.37	100
Master Tree Farmer (n=839)	7.87	12.87	23.00	10.85	24.91	20.50	100
Managing the Family Forest (n=849)	15.31	28.50	14.49	10.48	15.67	15.55	100
Agroforestry (n=823)	5.35	12.88	26.12	9.84	24.06	21.75	100
Are my Trees Ready to Thin? (n=844)	19.08	29.62	10.78	7.23	16.23	17.06	100
Forest Health (n=843)	19.22	33.33	10.08	9.73	13.29	14.35	100
Best Management Practices (n=842)	18.65	31.50	11.76	9.50	14.13	14.49	100
Forest Certification (n=829)	7.60	15.08	24.73	10.01	24.25	18.34	100
Forest Management for Wildlife (n=845)	19.05	27.34	12.90	11.72	14.79	14.20	100
Forest Valuation (n=840)	17.26	30.60	12.38	10.48	15.00	14.29	100
Global Positioning Systems (n=830)	7.23	15.30	26.14	7.47	23.49	20.36	100
Hardwood Management (n=840)	12.38	23.33	17.38	10.00	18.93	17.98	100
Tree Identification (n=835)	12.34	20.96	20.00	9.22	20.24	17.25	100
Urban Forestry and Landscaping (n=831)	5.66	9.63	24.43	7.82	27.08	25.39	100

Internet technology was a highly discussed topic in the focus group sessions of 2012; therefore, Mississippi NIPFs were asked to specify how often they used the Internet for email, social networking, and general browsing. Results are shown in Figure 6.19. On a daily basis, the Internet was most commonly used by NIPF respondents for email (45.1%), followed by general browsing (38.2%) and social networking (19.3%). Social networking was considered not applicable by more NIPF respondents (60.4%) than email (34.3%) and general browsing (34.4%).

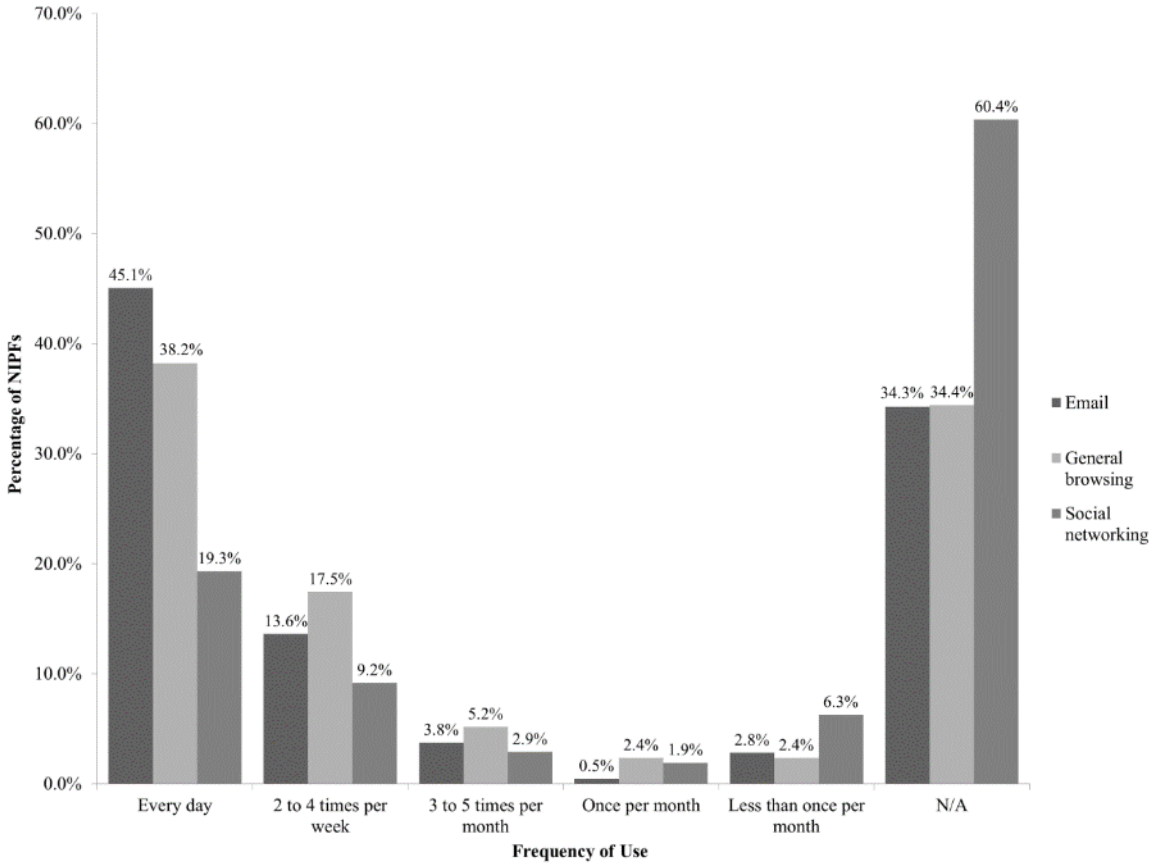

Figure 6.19 Distribution of Mississippi NIPF survey respondents by frequency of Internet use for the purposes of email, general browsing, and social networking

Survey participants were also asked the following five questions regarding their educational outreach preferences and practices: (1) Have you ever used forestry information you found on the forestry extension website on msucares.com; (2) Do you prefer email over traditional mail; (3) Are you a member of a county forestry association; (4) Are you willing to drive 30 minutes to an hour to attend a seminar or workshop; and (5) Are you willing to drive more than an hour to attend a seminar or workshop? The results are presented in Figure 6.20. Majority (89.5%) had not used forestry information found on the forestry extension website and 30.1% preferred email over traditional mail. Only 13.8% of NIPF respondents reported being a member of a county forestry association. Just over half (51.2%) of respondents reported that they were willing to drive 30 minutes to an hour to attend a seminar or workshop, but only 19.6% said that they were willing to drive more than an hour to attend a seminar or workshop.

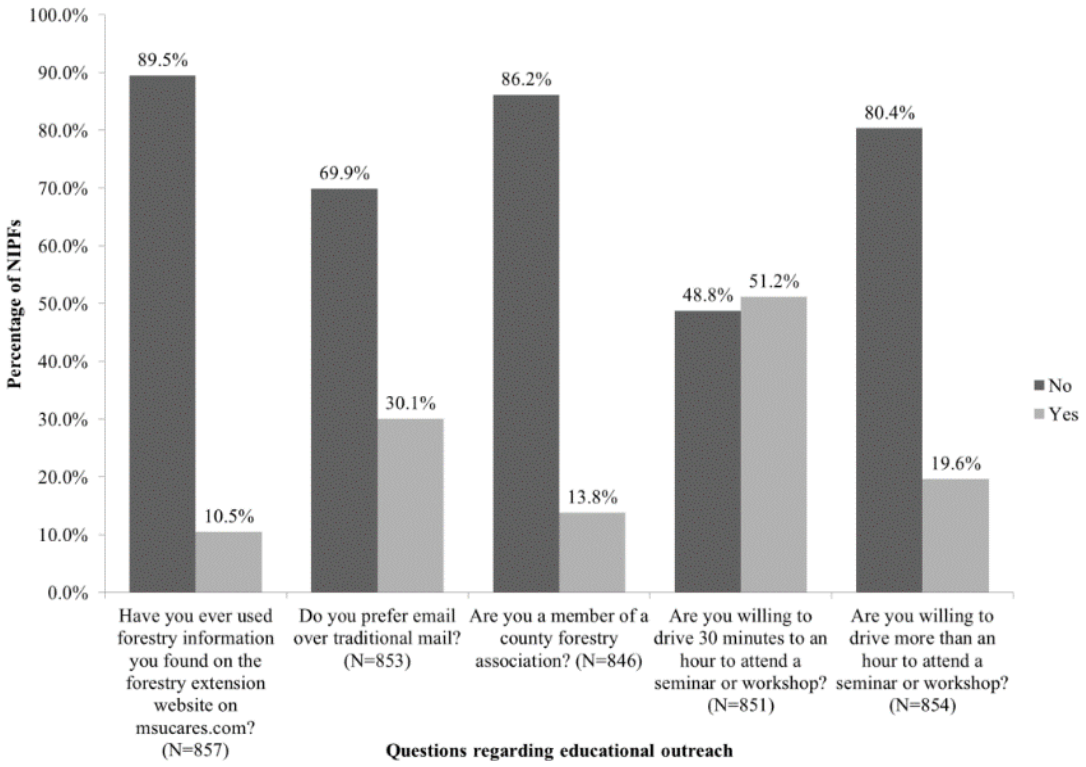

Figure 6.20 Distribution of Mississippi NIPF survey respondents based on outreach preferences and practices

CHAPTER VII

DISCUSSION AND IMPLICATIONS

Effectively communicating with landowners is challenging for extension across the South, often because the educational information it provides fails to fully reach its intended audience. Focus group discussions provided valuable information regarding landowner ownership goals, educational needs, and outreach preferences. Focus groups were especially beneficial in allowing for in-depth discussion of land attachment and plans for land transfer. Information gathered from focus groups was used to develop the mail survey instrument employed in the quantitative portion of the study. Both qualitative and quantitative portions of the study provided information which can aid in the development of Extension programs for the benefit of Mississippi NIPFs.

Based on quantitative findings, NIPF characteristics were consistent with the literature in that the majority were male, lived on or within one mile of their forested property, were retired, and had received at least some college education (Birch, 1997; Butler and Leatherberrry, 2004; Measells et al. 2005). Over half of the survey respondents owned less than 100 acres of forestland, and the average ownership size was 276 acres. Arano and Munn (2004) also reported that over half of respondents owned less than 100 acres, but they reported a lower ownership average of 261 acres. Both of these reported ownership averages are much higher than the 99 acres reported by

Doolittle (1996). As suggested by Arano and Munn (2004), this can likely be attributed to the underrepresentation of NIPFs with less than 20 acres in the sample.

The top three reasons indicated by landowners as the most important reason for land ownership were: (1) to pass land to children or other heirs; (2) for timber production; and (3) for land investment. These results were slightly different than the three reasons most frequently considered important or very important. Timber production was replaced with the enjoyment of beauty or scenery in the three reasons most frequently cited as important or very important. These findings were consistent with those reported by Butler and Leatherberry (2004).

Survey results also indicated 15% of Mississippi NIPF respondents had a written forest management plan, which is about 6% greater than the report regarding Mississippi NIPFs by Measells et al. (2005), and about 12% higher than the distribution reported by Birch (1997). Findings also showed there was a significant relationship between working with a consulting forester and having a written forest management plan.

To effectively reach NIPFs, Extension must recognize the variety and multi-faceted nature of NIPF ownership objectives. In this study, there were seven reasons considered to be important or very important by over 50% of survey respondents. Two of these reasons were related to income: (1) for timber production and (2) for land investment. The other three reasons included in the top five were not related to income and included: (1) to pass land on to my children or other heirs; (2) it is part of my home site/primary residence; (3) to enjoy beauty or scenery. NIPFs respondents were asked to rate their level of interest in Extension programs, and results were similar to those of Measells et al. (2005) as they listed insects/diseases, marketing timber, harvesting, and

best management practices among the top interests for NIPFs. Wildlife management was also included on their list of top topics NIPFs were interested in learning more about during programs, but did not make the top five in this study. Forest Regeneration and Analyzing Forest Investments were also among the top five programs with the highest level of interest by landowners in this study, but were not included on the top list by Measells et al. (2005).

Focus group findings suggest Extension programs should consider targeting landowners based on their ownership goals and interests. For example, the changing landscape in the Mississippi Delta provides new opportunities for Extension programming. Delta landowners were focused on hardwood management for wildlife habitat; thus, Extension should tailor its programming in the Delta this way. Including information about wildlife in forestry programs may help to create more positive attitudes toward forest management practices, which can lead to their adoption by clients.

African Americans would also benefit from a targeted approach. Results from the focus groups showed that many of these landowners are interested in forestry, but are not currently taking part in active forest management. In order to efficiently communicate with this group of landowners, Extension must understand the barriers these landowners face and effectively teach this group about the benefits of forest management. As suggested by Gan et al. (2003), specific attention should be given to marketing efforts to include minority NIPFs who are not current participants in Extension programs. One way to reach this group may be to appeal to their attachments to the land. Place attachment was not only mentioned at the minority landowner focus group, but was also expressed in many other focus group discussions.

Focus group findings suggest forest owners are more likely to adopt management practices if Extension is sensitive to the attachments many landowners have towards their property. Extension should communicate in a way that assures landowners their land represents more than a commodity, while acknowledging the importance of income. Emotional attachment is likely the reason that many landowners considered passing land to heirs an important reason for owning land. Mail survey results show that nearly half of respondents were interested or very interested in the Extension program titled "Forest Taxation and Estate Planning Basics." Planning for the future of forestland affects all landowners regardless of current management practices or size of property. In addition, this type of outreach can be directed at current and future generation NIPFs.

Nearly 44% of mail survey respondents reported that they had inherited some or all of their forested property. This distribution of Mississippi NIPFs is higher than the 28% rate presented by Majumdar et al. (2009) for forest landowners in the United States. Of NIPF survey respondents who obtained their land from family, the majority reported that the land had been in the family 30 or more years before they acquired it. Furthermore, 52% of landowners were raised on or near their forestland. An indication that NIPFs are attached to their land is the report that 79.9% believe passing land to children or other heirs is either important or very important reason for land ownership.

Investigating NIPF planning activities provides insight into specific educational needs related to estate and succession management planning. Two-thirds of Mississippi NIPF respondents reported having a written will and testament, but far fewer had met with an attorney or tax advisor or created an estate plan. Measells et al. (2005) reported a slightly lower distribution (61.1%) of Mississippi NIPF survey respondents having a

written will. Extension should consider the continued use of Oregon State University's "Ties to the Land," or provide a similar program which incorporates question and answer sessions with local tax advisors and attorneys. Creating an accessible environment for NIPFs to approach these professionals may encourage landowners to actively pursue estate planning with a professional.

Results from the mail survey indicated that older NIPFs were more likely to have a written will and an estate plan, and more likely to have talked with an attorney and their heirs about the future of their forestland. These findings are not surprising considering land transfer by inheritance takes place at the end of one's life. However, Extension can provide educational resources regarding succession planning to encourage NIPFs of all ages to begin talking to their heirs about the future of their forestland at a younger age, and further encourage NIPFs to involve their heirs in the management decisions for the property. This may help alleviate the disconnectedness to the land described by Mater et al. (2005). There was a significant relationship between whether or not NIPFs had inherited their land and whether or not they had talked to their heirs about the future of their forestland. There was also a significant relationship between whether or not NIPFs had children and whether or not they had talked to their heirs about the future of their forestland. However, Extension can promote continued discussions between NIPFs and their heirs about the future of their forestland, highlighting the importance of involving next generation landowners in current management. Furthermore, Extension can provide educational resources to NIPFs who do not have children about their options in preparing their estate for transfer.

Landowners with more acreage in their ownership were more likely to have a written will, an estate plan, to have worked with an attorney and a tax advisor, and to have talked with heirs. This may be because of the higher value of larger properties which can have negative implications for the rate of estate taxes. In general, NIPFs with larger ownerships seem to have made more plans regarding land transfer. Greater ownership tenure also increased the likelihood of NIPFs having a written will and testament and an estate plan. Increasing tenure also increased the likelihood that NIPFs had talked with an attorney, tax advisor, and their heirs. This could be attributed to the longer planning time, or possibly land attachment. Whether or not NIPFs considered passing land to heirs to be an important or very important reason for ownership was significantly related to having met with an attorney and having talked to their heirs about the future of the forestland.

With so many people desiring to pass land to their heirs, there is potential for land being divided into multiple tracts. Just over half of the mail survey respondents reported that their forestland was once part of a larger tract of land; however 52.1 % of those respondents whose land had been divided also reported that there was very low or no development pressure around their land. This may be an indication that the parcelization of forested tracts in Mississippi is due to intergenerational transfer to multiple heirs as opposed to pressure from urbanization. This further highlights the need for Extension to promote succession management planning to avoid conflicts between co-heirs and encourage heir in involvement in current forest management (Best 2002; Mater 2005). Continued intergenerational transfer of forested properties will increase the importance of

Extension developing outreach which is relevant and desired by NIPFs with smaller ownerships.

Landowners with small tracts of forestland often have different educational needs than landowners with large tracts of forestland. Recognizing these landowners face different challenges in forest management and communicating new ideas to them will increase the relevancy of Extension to a broader clientele. In turn, they will be more likely to participate in programming. Employing a program like "Woods in Your Backyard" in Mississippi would address this need which will become increasingly important as land is divided through intergenerational transfer.

Extension must recognize there are NIPFs in the South facing challenges different from those of its traditional audience. Because of this, attention should be given to not only the information presented, but also the communication methods. Extension must consider the need to earn the trust of less-involved groups (e.g. Delta and African American landowners). Audiences who feel they were left out before may better respond to face-to-face programming specifically tailored to their interests.

The lack of awareness of local CFAs by both African American and Delta landowners highlights the importance of broadening the outreach approach. Peer to peer learning opportunities through already established landowner associations should be strengthened as mail survey results indicate that only 30.7% had previously attended a county forestry program, and only 15.9% had attended a face-to-face seminar or workshop. Strategically selected volunteers can be trained to demonstrate and promote management practices in communities Extension cannot easily reach. Involving volunteer landowners in forestry outreach could promote awareness of newly formed

CFAs and social networks in the Delta and impact the rate at which forestry practices are adopted.

Extension must effectively reach busy landowners and bridge generational gaps by using multiple communication channels. This research shows the Internet is a popular tool used by forest landowners, and an opportunity exists for Extension to provide educational information through web pages, posted videos, and webinars. The Internet also affords the opportunity to inexpensively market and educate through email. Focus group participants indicated that mailings through the United States Postal Service were their primary source of information regarding Extension programs, but many believed email was a viable marketing option. Using email as a form of advertisement for upcoming programs may help improve the rate of attendance at Extension programs. Social networking (e.g. Facebook and Twitter) may also be a valuable marketing tool for Extension. Focus group results showed some NIPFs believed Internet technology could be a beneficial source of information for all ages, but could especially aid Extension in its outreach to the new generation of landowners.

Quantitative results indicated that nearly two-thirds of NIPFs use the Internet for email and general browsing, and nearly 40% indicated they used social networking. However, only 12.2% reported using Internet information as a source of forest management information. Far fewer respondents had used webinars (3.5%), and even less had used posted videos (1.1%). Only 10.5% had ever used msucares.com for forestry information which could indicate that, like Measells et al. (2005) suggested, NIPFs are unaware of the information available to them. This lack of NIPF use of information extended beyond Internet only sources as no source of information was

reported as being used by more than 31% of respondents. Although Internet technology can provide a cost-effective means of reaching a large number of NIPFs, Extension must recognize not all landowners are ready for email and ensure those individuals are not left behind. Similarly, resources provided using the Internet must only be supplementary to face-to-face communication still appreciated by many landowners.

In conclusion, Extension must acknowledge that effective outreach is accomplished when the material is relevant, and the methods of communication are appealing to the audience. How new ideas are presented to landowners plays an important role in the development of attitudes regarding a subject, and this greatly affects the likelihood of the adoption of innovations. Extension must provide educational outreach which will serve landowners with ownerships of all sizes, especially with information regarding estate and succession management planning. It must continue reaching out to landowners who are not current participants in county forestry associations by involving new methods of outreach through Internet technology. Ongoing research is necessary to investigate how Internet technology can be best used for outreach while carefully balancing the outreach preferences of those who do not use the Internet. Furthermore, future research can investigate ways to group NIPFs such that educational outreach can be as relevant as possible based on ownership goals and interests. Extension outreach may also benefit from future research which investigates the demographic characteristics, educational needs, and outreach preferences of the next generation of forest landowners

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APPENDIX A

TELEPHONE SCRIPT FOR CONTACTING POTENTIAL FOCUS GROUP PARTICIPANTS

Telephone Verbal Script for Contacting Focus Group Participants:

Hello, my name is Emily Fleming and I am a graduate student in the department of Forestry at Mississippi State University. I am currently conducting research on private forest landowners in the state of Mississippi. More specifically, I am studying landowner characteristics, management objectives, and outreach preferences. This study will help to make forestry extension programs more relevant to Mississippi landowners, and will help extension better communicate with landowners. I was hoping you might be available to participate in a focus group discussion which will consist of about 7 principal questions concerning private forest landowners. The discussion will last approximately 1 hour.

Does this interest you? Can I further explain my request?

If yes, continue

If no, thank them for their time and terminate the call

Other than being 18 years of age or older, there are no requirements for participating in the project. You participation is voluntary and confidential and you can stop at any time. I will ask you to read and agree to a consent form before we start the discussion and you will get a copy of this form.

What date and time would work best for you?

Date _____
Time _____

Can you suggest a location that is convenient for you?

Location _____

Directions
_____
_____
_____
_____

In the past, we have found these events interesting and informative for those who care to join in the discussion. If you have any questions, please call (662) 325-3905.

Thank you.

APPENDIX B

FOCUS GROUP QUESTIONS

Research Study Title: Mississippi Private Forest Owner Characteristics: Implications for Extension Forestry

Private Forest Owner Outreach Assessment
Focus Group Questions

Concept	Question
Objectives	Why do you or your clients own forestland? What are your management objectives? *Probe:* Is there anything keeping you from managing for your objectives?
Property Acquisition	How did you acquire your forest land? *Probe:* Does it hold special meaning? *Probe:* Does attachment to your land drive your management decisions?
Management Practices/Knowledge	Do you conduct any management activities? If so, what types of activities? *Probe:* Have you harvested timber? Do you plan to? *Probe:* Have you conducted management activities not directly related to timber? (food plots/road system management) *Probe:* If you have not participated in any management activities, what has kept you from doing so? *Probe:* What do you foresee for your land over the next 10 years? 20 years? *Probe:* Do you involve family members in management decisions? Why/why not?
Assets	What resources do you use in your forest management? *Probe:* Has utilizing these resources benefited you? How? *Probe:* What useful information did these resources provide? *Probe:* What information was lacking from these consultations? *Probe:* Have you ever considered using resources provided by MSU Forestry Extension? *Probe:* Have you ever utilized state or federal cost share programs?

Research Study Title: Mississippi Private Forest Owner Characteristics: Implications for Extension Forestry

Landowner Perception of Extension	Are you familiar with the Mississippi State Extension Service? *Probe:* Have you ever contacted the Extension service for assistance? *Probe:* Are you aware of educational programs and seminars provided by the Extension service? *Probe:* If you have attended these programs, which ones? Did you implement what you learned? (Why?/Why not?)
Needs	How could the MSU Forestry Extension better meet your needs? *Probe:* Are there specific topics that interest you, landowners? Forestry professionals, what information would benefit you? *Probe:* Is there a better way to teach the topics (e.g., webinar)?
Contact	How can the Extension Service reach you concerning programs and information that may interest you? *Probe:* Are you willing to travel to programs and seminars? How far? What time of day? During the week? *Probe:* What has kept you from attending programs you were aware of? *Probe:* Have you ever visited the Extension Forestry website (www.msucares.com/forestry)?

APPENDIX C

FOCUS GROUP PARTICIPANT BACKGROUND INFO

Mississippi Private Forest Owner Characteristics: Implications for Extension Forestry
Individual Background Information for Focus Group Meetings

	Do you own land or serve as a natural resources consultant? (Own/Consult/Both)	How many years have you owned or managed land?	How many forested acres do you own or manage?	If you own land, is your permanent residence on your forest land? (Y/N)	Are you enrolled in a landowner assistance program (e.g., CRP, WRP)? (Y/N)	Have you ever participated in an MSU Forestry Extension Program? (Y/N)	Do you have access to the internet? (Y/N)	Male (M) or Female (F)?	Race	Age
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

APPENDIX D

INFORMED CONSENT FORM FOR FOCUS GROUPS PARTICIPANTS

Mississippi State University
Informed Consent Form for Participation in Research

Title of Research Study: Mississippi Private Forest Owner Characteristics: Implications for Extension Forestry

Study Site: Mississippi (Statewide)

Researchers: Emily Fleming, Mississippi State University
Dr. Andy Londo, Mississippi State University

Purpose
This project gathers input from private forest landowners from the state of Mississippi to evaluate management objectives, landowner interests, and outreach preferences.

Procedures
The focus group will be led by a facilitator who will ask you to respond to approximately 7 principal questions. Follow-up questions may be asked to clarify concepts and ideas.

Risks or Discomforts
Given that questions will be asked about your private land, you may be uncomfortable answering some questions. We will take steps to ensure what you say in the interview remains confidential. Please note you will not be required to answer any questions you are uncomfortable with.

Benefits
There will be no direct benefits from participating in this project. However, the research will inform forestry extension professionals of landowner preferences concerning topics of interest, needs, and outreach resulting in improved Forestry Extension programs.

Confidentiality
All of your information will remain confidential. That is, your responses will not be linked to individual identifiers such as name, title, or other demographic information during reporting of the results. In the event of any publication or presentation resulting from the research, data will be reported in summary form only. Please note that these records will be held by a state entity and therefore are subject to disclosure if required by law. Research information may be shared with the MSU Institutional Review Board (IRB) and the Office for Human Research Protections (OHRP).

Audio Recording
A digital audio recorder will be used to record focus group meetings. A transcript will be developed from each recording. The recordings and transcripts will be stored in a locked cabinet in Room 373 of Thompson Hall at Mississippi State University. Only Dr. Londo and Emily Fleming will have access to the audio recordings and transcripts. Destruction of the recordings will occur on or before May 31, 2013.

MSU IRB
Approved: 11/18/11
Expires: -/-/-

Questions
If you have any questions about this research project, please feel free to contact Emily Fleming at (662) 325-3905 or Dr. Andy Londo at (662) 325-8003.

For questions regarding your rights as a research participant, or to express concerns or complaints, please feel free to contact the MSU Regulatory Compliance Office by phone at 662-325-3994, by e-mail at irb@research.msstate.edu, or on the web at http://orc.msstate.edu/participant/.

Voluntary Participation
Please understand that your participation is voluntary. Your refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue your participation at any time without penalty or loss of benefits.

You must be 18 years of age or older to take part in this research study.

Please take all the time you need to read through this document and decide whether you would like to participate in this research study.

Your participation in this focus group implies that you have read the information in this form and consent to take part in the research. Please keep this form for your records.

APPENDIX E

PRENOTICE LETTER

January 7, 2013

Dear Landowner:

My name is Emily Vanderford and I am a graduate student in the Department of Forestry at Mississippi State University. I am working closely with MSU Forestry Extension to complete a research project about private forest landowners. The goal of the study is to learn how Forestry Extension can best reach forest landowners with educational programs so Mississippi landowners can better realize their forest management objectives.

In about one week, you will receive a survey questionnaire in the mail. Your participation is completely voluntary, but I hope you will take the 20-25 minutes to complete the questionnaire. Your input is very important, and will help to provide needed information for this research project. Your responses will be strictly confidential, and you will not be identified with your answers.

It's only through landowners like you that this research can be successful. I thank you for taking the time to read this letter, and I hope you will be looking for the survey questionnaire. If you have any questions about this research project, please feel free to contact me at Mississippi State University at **(662) 325-3905** or you can reach me by email at **efleming@cfr.msstate.edu**. You may also reach Dr. Andy Londo, my major professor, with questions by calling (**662) 325-8003**. For additional information regarding human participation in research, please feel free to contact the MSU Institutional Review Board at (662) 325-3994.

Thank you in advance for your cooperation.

Sincerely,

_____

Emily Vanderford
Graduate Assistant
Department of Forestry
Mississippi State University
(662) 325-3905
efleming@cfr.msstate.edu

Andy Londo
Extension Professor
Department of Forestry
Mississippi State University
(662) 325-8003
ajlondo@cfr.msstate.edu

APPENDIX F

COVER LETTER INCLUDED WITH FIRST MAILING OF SURVEY

QUESTIONNAIRE

January 14, 2013

Dear landowner:

On behalf of the Forestry Department at Mississippi State University, I am contacting a sample of Mississippi landowners and asking them to provide information about their forested property. This information will be used to help MSU Forestry Extension plan the most relevant educational programming possible based on landowner characteristics and interests.

You were selected at random from the landowner tax roll lists on file in your county. Your participation is completely voluntary and your responses will be strictly confidential. The information you provide on the enclosed questionnaire will be combined with all others and statistically summarized. We have numbered the questionnaires in order to follow up with landowners who do not return their forms, but these numbers will not be linked to information you provide. Completing the questionnaire will take approximately 20-25 minutes.

We will greatly appreciate your participation, and we are looking forward to receiving your response very soon. Since you are part of a relatively small sample, your response is very important to the accuracy of the final data. Please complete the enclosed questionnaire and return it to Mississippi State University in the postage-paid, business reply envelope provided **by January 31, 2013**. Remember, your responses will be confidential and your participation is completely voluntary. By returning the enclosed questionnaire, you imply that you have read this document and consent to take part in this research.

If you have any questions about this research project, please feel free to contact me at Mississippi State University at **(662) 325-3905**, or you can reach me by email at **efleming@cfr.msstate.edu**. You may also reach Dr. Andy Londo, my major professor, by calling (**662) 325-8003**. For additional information regarding your rights as a research participant, please feel free to contact the MSU Regulatory Compliance Office by phone at (662) 325-3994 or by email at irb@research.msstate.edu.

Thank you again for your time!

Sincerely,

Emily Vanderford
Graduate Assistant
Department of Forestry
Mississippi State University
(662) 325-3905
efleming@cfr.msstate.edu

Andy Londo
Extension Professor
Department of Forestry
Mississippi State University
(662) 325-8003
ajlondo@cfr.msstate.edu

APPENDIX G

THANK YOU/REMINDER POST CARD

MISSISSIPPI STATE
UNIVERSITY
Department of Forestry
Box 9681
Mississippi State, MS 39762

Dear landowner:

You recently received a questionnaire regarding private forest landowners in Mississippi. If you have already completed and returned this questionnaire, we thank you for your time and assistance. If you have not completed and returned the questionnaire, please do so as soon as possible. Your response is very important to us.
If you did not receive the questionnaire or have misplaced it, please email me at efleming@cfr.msstate.edu or give me a call at (662) 325-3905. I will gladly send a replacement.

Thank you for your time.

Emily Vanderford
Graduate Assistant
Department of Forestry
Mississippi State University
(662) 325-3905
efleming@cfr.msstate.edu

APPENDIX H

COVER LETTER INCLUDED WITH SECOND MAILING OF SURVEY

QUESTIONNAIRE

February 7, 2013

Dear landowner:

About three weeks ago, I sent a letter asking you to complete a survey questionnaire concerning your forested property. As of today, I have not received your completed questionnaire. If you recently returned the questionnaire, please accept my thanks. Since you are part of a relatively small sample, your response is very important to the accuracy of the study. By returning your questionnaire, you are helping to ensure that our results are representative of all forest landowners in Mississippi. The information you provide will be used to help Forestry Extension plan the most relevant educational programming possible.

I have enclosed a replacement questionnaire in case you did not receive the first one or accidentally misplaced it. Remember, your participation in this survey is completely voluntary. All responses will be strictly confidential and you will not be identified with your answers. The answers from all questionnaires will be combined and statistically summarized, and no information will be linked with names or properties. We have numbered the questionnaires in order to follow up with landowners who do not return their forms, but these numbers will not be linked to information you provide. By returning the enclosed questionnaire, you imply that you have read this document and consent to take part in this research.

After you complete the questionnaire, please return it to Mississippi State University in the postage-paid, business reply envelope before **February 15, 2013**. If you have any questions about this research project, please feel free to contact me at Mississippi State University at **(662) 325-3905** or you can reach me by email at **efleming@cfr.msstate.edu**. You may also reach Dr. Andy Londo, my major professor, by calling (**662) 325-8003**. For additional information regarding your rights as a research participant, please feel free to contact the MSU Regulatory Compliance Office by phone at (662) 325-3994 or by email at irb@research.msstate.edu.

Thank you again for your time!

Sincerely,

Emily Vanderford
Graduate Assistant
Department of Forestry
Mississippi State University
(662) 325-3905
efleming@cfr.msstate.edu

Andy Londo
Extension Professor
Department of Forestry
Mississippi State University
(662) 325-8003
ajlondo@cfr.msstate.edu

APPENDIX I

MAIL SURVEY INSTRUMENT – EDUCATIONAL OUTREACH QUESTIONNAIRE

Educational Outreach Questionnaire for Private Forest Landowners in Mississippi

MISSISSIPPI STATE UNIVERSITY
EXTENSION SERVICE

Please carefully read each question and indicate your answer in the space provided. Your responses are very important to us and will remain confidential. Thank you for your time.

SECTION 1: PROPERTY INFORMATION

1) How many total acres of land do you currently own? _____ total acres

2) How many forested acres do you own (including clearcut areas you plan to reforest)?
_____ acres

3) Do you lease any of your forestland to other people?
___ Yes → If yes, how many acres? _____acres
___ No

4) In what Mississippi counties do you own forestland? *Please list all.*

_____

5) Do you own more than one forested property (individual properties have their own legal description)?
___ No → If **no**, please skip to **Question 9**.
___ Yes → If **yes**, how many properties? _____separate properties

Choose **one** of your forested properties to focus on during the remainder of the survey. All of the following questions are asking about this **selected property** only. Although there are no requirements for how you select **the** property, we would like to know why you selected that property over the others.

6) Why did you choose this property as your "selected" property for this questionnaire? *Check only one.*

___ Size
___ Emotional attachment
___ Length of ownership tenure
___ Amount of time spent on the property
___ Location
___ Other (*please specify*):_____

7) In which Mississippi county is this "selected" property located? _____

8) How many forested acres is the "selected" property (including clearcut areas you plan to reforest)? _____ acres

Answer all remaining questions regarding your selected property.

9) Which category below best describes your ownership?
Check only one.

___ Individual
___ Joint ownership with spouse
___ Other joint ownership
___ Family partnership
___ Trust or estate
___ Corporation or business partnership
___ Other (*please specify*):_____

10) Is your primary residence located on or within one mile of your forested land?
___ Yes ___ No

11) Do you have a vacation home or cabin on or within one mile of your forested land?
___ Yes ___ No

12) How did you obtain your forested land in Mississippi?
Check only one.

___ Purchased
___ Inherited
___ Received as gift
___ Other (*please specify*): _____

13) In what year did you first acquire your forestland?
___ ___ ___ ___ year

14) Who owned the property before you?
Check only one.

___ My parents or spouse's parents
___ My spouse
___ Another family member
___ Other individual (s)
___ A business
___ A government agency
___ Other (*please specify*):
_____

15) If acquired from family, how long was the land in your family before you acquired it?
Check only one.

___ It was not acquired from family
___ Less than 10 years
___ 10-20 years
___ 21-30 years
___ 31-40 years
___ 41-50 years
___ More than 50 years

16) What generation landowner are you?
Check only one.

___ First generation
___ Second generation
___ Third generation
___ Fourth generation
___ Not sure
___ Other (*please specify*): _____

17) Was the property you own once part of a larger tract of land (i.e. was the property divided before you received it)?
___ Yes ___ No ___ Not sure

18) Were you raised on or near the forested land you own? ___Yes ___ No

19) How would you rate the development pressure on or around your land?
Check only one.

___ Very High Pressure
___ High Pressure
___ Medium Pressure
___ Low Pressure
___ Very Low Pressure
___ No pressure

20) Please estimate the number of acres of the following timber types within your ownership.
Pine: _____ acres
Hardwood: _____ acres
Mixed Pine/Hardwood: _____ acres

SECTION 2: CURRENT MANAGEMENT AND FUTURE PLANS

21a) This is a two part question. People own land for a variety of reasons. Please indicate how important each of the following reasons are to you by checking one box for each line. Please **also** complete question 21b.

	Very Important	Important	Neither Important nor Unimportant	Somewhat Important	Not at all Important	Not Applicable
a. To enjoy beauty or scenery	☐	☐	☐	☐	☐	☐
b. For land investment	☐	☐	☐	☐	☐	☐
c. For timber production (sawlogs or pulpwood)	☐	☐	☐	☐	☐	☐
d. To protect or improve wildlife habitat	☐	☐	☐	☐	☐	☐
e. For nontimber forest products other than hunting (e.g., pine straw or berries)	☐	☐	☐	☐	☐	☐
f. For firewood	☐	☐	☐	☐	☐	☐
g. To protect water resources	☐	☐	☐	☐	☐	☐
h. For hunting	☐	☐	☐	☐	☐	☐
i. For recreation, other than hunting (e.g. birding)	☐	☐	☐	☐	☐	☐
j. For privacy	☐	☐	☐	☐	☐	☐
k. To pass land on to my children or other heirs	☐	☐	☐	☐	☐	☐
l. To raise my family on the land	☐	☐	☐	☐	☐	☐
m. It is part of my farm	☐	☐	☐	☐	☐	☐
n. It is part of my home site/primary residence	☐	☐	☐	☐	☐	☐
o. It is part of my cabin or vacation home site	☐	☐	☐	☐	☐	☐
p. Other (*please specify*):_____	☐	☐	☐	☐	☐	☐

21b) From the above list, which reason is **MOST** important to you? Write only **one** letter. _____

22) Please answer the following questions by checking *yes* or *no*.

a. Do you believe you are actively managing your forestland?	___ Yes	___ No
b. Do you have a written forest management plan?	___ Yes	___ No
c. Are you currently working with a consulting forester?	___ Yes	___ No

23) Who makes the management decisions for your Mississippi forestland?
Check all that apply.

___ Me
___ My spouse
___ My children
___ My parents
___ Another family member
___ My business partner
___ My forester
___ Other (*please specify*): _____

24) Please answer the following questions by checking *yes* or *no*.

a. Do you have a written last will and testament?	___ Yes	___ No
b. Have you created an estate plan?	___ Yes	___ No
c. Have you met with an attorney regarding passing on your land?	___ Yes	___ No
d. Have you met with a tax advisor to discuss passing on your land?	___ Yes	___ No
e. Have you established a trust?	___ Yes	___ No
f. Do you have a revocable trust?	___ Yes	___ No
g. Do you have an irrevocable trust?	___ Yes	___ No
j. Have you talked with your heirs about the future of your forestland?	___ Yes	___ No

25) Below is a list of activities you may have conducted or plan to conduct on your forested property. Please indicate when you ***most recently did*** the following activities. If you have not conducted the activity, please check the box under "did not do." **ALSO**, indicate when ***in the future*** you plan to conduct each of the activities or check "will not do."

Activity	Done in the **past**...					Plan to do in the **next**...				
	1 yr	**5yrs**	**10 yrs**	**15+ yrs**	Did **not** do	**1 yr**	**5 yrs**	**10 yrs**	**15+ yrs**	Will **not** do
a. Cut and/or remove trees for sale	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
b. Cut and/or remove trees for own use	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
c. Collect nontimber forest products	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
d. Invasive species control	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
e. Road construction or maintenance	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
f. Improve wildlife habitat	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
g. Livestock grazing	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
h. Trail construction or maintenance	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
i. Insect or disease control	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
j. Controlled burn/prescribed fire	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
k. Sell part of your forested property	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
l. Gift part of your forested property	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
m. Other (*please specify*):	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
						(*please specify*):				

SECTION 3: LANDOWNER EDUCATIONAL NEEDS

26) Please indicate if you have used the following as a source of information from MSU about managing your forestland. **ALSO**, indicate how useful you believe each information source to be.

	Have you used this information source?		Please rate the usefulness of this information source.		
	Yes	No	Very Useful	Somewhat Useful	Not Useful
a. Brochure/newsletter received in the mail	☐	☐	☐	☐	☐
b. Publication/book	☐	☐	☐	☐	☐
c. Newspaper	☐	☐	☐	☐	☐
d. Magazine article	☐	☐	☐	☐	☐
e. County forestry program	☐	☐	☐	☐	☐
f. Seminar/workshop (face-to-face)	☐	☐	☐	☐	☐
g. Seminar/workshop (webinar)	☐	☐	☐	☐	☐
h. Field tour	☐	☐	☐	☐	☐
i. Television program	☐	☐	☐	☐	☐
j. Radio program	☐	☐	☐	☐	☐
k. DVD for home viewing	☐	☐	☐	☐	☐
l. Computer CD-ROM	☐	☐	☐	☐	☐
m. Internet information/website	☐	☐	☐	☐	☐
n. Posted videos (e.g., YouTube)	☐	☐	☐	☐	☐

27) In the table below, please check the box which indicates **how often** you use the Internet for the following purposes.

	Every day	2-4 times per week	3-5 times per month	Once per month	Less than once a month	Not Applicable
a. Email	☐	☐	☐	☐	☐	☐
b. Social networking (e.g. Facebook, Twitter)	☐	☐	☐	☐	☐	☐
c. Business activities	☐	☐	☐	☐	☐	☐
d. General browsing	☐	☐	☐	☐	☐	☐
e. Education	☐	☐	☐	☐	☐	☐
f. Other (*please specify*): _____	☐	☐	☐	☐	☐	☐

28a) This question has 5 parts. Rate your interest in each of the programs by **checking a box** for each one. Please **also** complete question 28b.

	Very Interested	Interested	Neither Interested nor Uninterested	Somewhat Interested	Not at all Interested	Not Applicable
a. Analyzing Your Forest Investments	☐	☐	☐	☐	☐	☐
b. Forest Herbicides	☐	☐	☐	☐	☐	☐
c. Forest Regeneration	☐	☐	☐	☐	☐	☐
d. Forest Taxation & Estate Planning Basics	☐	☐	☐	☐	☐	☐
e. How to Manage Pine Plantations	☐	☐	☐	☐	☐	☐
f. Intensive Management for Biomass	☐	☐	☐	☐	☐	☐
g. Growing Hardwoods on CRP	☐	☐	☐	☐	☐	☐
h. Marketing & Harvesting of Timber	☐	☐	☐	☐	☐	☐
i. Timber Tax Fundamentals	☐	☐	☐	☐	☐	☐
j. Master Tree Farmer	☐	☐	☐	☐	☐	☐
k. Managing the Family Forest	☐	☐	☐	☐	☐	☐
l. Agroforestry	☐	☐	☐	☐	☐	☐
m. Are My Trees Ready to Thin?	☐	☐	☐	☐	☐	☐
n. Forest Health (bark beetles, ash borer)	☐	☐	☐	☐	☐	☐
o. Best Management Practices	☐	☐	☐	☐	☐	☐
p. Forest Certification	☐	☐	☐	☐	☐	☐
q. Forest Management for Wildlife	☐	☐	☐	☐	☐	☐
r. Forest Valuation	☐	☐	☐	☐	☐	☐
s. Global Positioning Systems	☐	☐	☐	☐	☐	☐
t. Hardwood Management	☐	☐	☐	☐	☐	☐
u. Tree Identification	☐	☐	☐	☐	☐	☐
v. Urban Forestry and Landscaping	☐	☐	☐	☐	☐	☐
w. Other (*please specify*): _____	☐	☐	☐	☐	☐	☐

28b) Have you ever attended an MSU Extension program? ___ Yes ___ No

If *yes*, complete the remainder of Question 28. If *no*, skip to Question 29.

28c) From the above list, **WRITE IN** the letter(s) of the program(s) you have attended.

_____

28d) Please indicate your level of agreement with the following statement:
As a result of attending Extension Forestry program(s), my forest management changed.
Check only one.

___ Strongly Disagree
___ Disagree
___ Neither Agree nor Disagree
___ Agree
___ Strongly Agree
___ Not Applicable

28e) Please tell us how your forest management has changed as a result of attending the program(s).

_____

_____

_____

_____

_____

29) Please answer the following questions by checking ***yes*** **or** ***no***.

a. Have you ever used forestry information you found on the forestry extension website on msucares.com?	___Yes	___No
b. Do you prefer email over traditional mail?	___Yes	___No
c. Are you a member of a county forestry association?	___Yes	___No
d. Are you willing to drive 30 minutes to an hour to attend a seminar or workshop?	___Yes	___No
e. Are you willing to drive more than 1 hour to attend a seminar or workshop?	___Yes	___No

SECTION 4: DEMOGRAPHIC INFORMATION

Now we want to ask you a few questions about yourself. All information will be treated confidentially and never linked with your name.

30) What is your gender?
___ Male ___ Female

31) What is your race?
___ White ___ African American ___ Other (*please specify*):_____

32) In what year were you born?
___ ___ ___ ___ year you were born

33) How many children do you have? _____number of children

34) What is your current employment status?
Check only one.

___Full time
___Part time
___Retired
___Student
___Unemployed
___Other (*please specify*): _____

35) What was the highest level of education you completed?
Check only one.

___None
___Grade school
___Some high school
___Completed high school
___Some college/technical school/Associates degree
___Completed college
___Graduate/professional school

36) What was the total income in your household (before taxes) last year?
Check only one.

___Less than $15,000
___$15,000 to $24,999
___$25,000 to $34,999
___$35,000 to $49,999
___$50,000 to $74,999
___$75,000 to $99,999
___$100,000 to $149,999
___$150,000 to $199,999
___$200,000 to $249,999
___$250,000 or more

THANK YOU FOR YOUR TIME!

Please accept our appreciation for your willingness to complete this survey! Please return your completed questionnaire in the postage paid envelope provided.

If you have any additional comments, please provide them in the space below.