2005

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Consulting Foresters of West Virginia: A Profile, Services and Fees

Dheeraj Nelli

Thesis submitted to the College of Agriculture, Forestry and Consumer Sciences at West
Virginia University in partial fulfillments of the requirements for the degree of

**Master of Science
In
Forest Management**

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2005

Keywords: Consulting Foresters, NIPF Landowners, Services, Fees.

ABSTRACT

Consulting Foresters of West Virginia: A Profile, Services and Fees

Dheeraj Nelli

Consulting foresters of West Virginia were surveyed with an aim to identify and document the firm characteristics, services offered and fees charged. The survey response rate was 56 percent. A suite of thirty-six (36) different services with different fee structures for each service is reported. West Virginia consulting foresters reported that they most commonly charge by the hour, with an exception for timber sale administration where they charge as a percentage of the sale revenues and for management plan preparation where they charge by the acre. Timber sale administration is the most frequent offered service, with an average fee of 12 percent of the timber sale revenues. Average hourly fees charged for all the services ranged from 30 to 70 dollars per hour. The two major challenges faced by the consulting foresters are cost of doing business and competition.

Acknowledgements

I wish to extend my sincere thanks to several individuals who assisted me in successful completion of my project. To begin with, I would like to thank Dr. Dave McGill for providing an opportunity to get into the program and work with him on the project. His strong belief in me made me more enthusiastic and challenging to take up several works and completing them. Under his guidance and supervision I got to learn a lot especially in the United States which is thousands of miles away from my home.

I would also like to thank all the wonderful people in the faculty and staff of West Virginia University and particularly Davis College of Agriculture, Forestry and Consumer Sciences. I consider myself lucky to get an admission in this esteemed University and work with the Division of Forestry. My earnest thanks to my committee members, Dr. Kathryn Arano and Dr. Chad Pierskalla whose assistance helped me a lot for completing this research and faculty of Division of Forestry for aiding me in completing my Master's degree.

Lastly, I would like to thank all my family members, especially my mom, my dad, my brother, sister-in-law and my younger brother. I would also like to thank my friends here and in my home country, India.

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Introduction

Forests cover 12 million acres in West Virginia or 78% of the total land area (Griffith and Widmann, 2003). West Virginia ranks third in the nation with respect to percent forest cover just behind Maine and New Hampshire, but exceeds these states in the number of private landowners (Jennings, 2003). Most of this forestland (90%) is privately owned (McGill et al., 2004 a) with nearly 80% owned by 260,000 non-industrial private forest (NIPF) landowners (USDA Forest Service, 2004). NIPF landowners are those who own forestland but do not possess or operate wood processing facilities (Bliss et al., 1997).

West Virginia landowners have diverse and multiple objectives for managing their lands (Jennings, 2003) and have a diverse suite of educational and technical assistance needs (Magill 2000; Magill et al., 2004). Forestry technical assistance and education needs are generally provided by natural resources professionals. Specifically, forestry professionals in West Virginia are licensed to denote this specialized area of expertise. Several types of foresters interact with private forest owners and each has different motivations, directives, and services rendered. The major groups of forestry professionals providing technical assistance include public foresters, private foresters, and industry foresters (Zhang et al., 1998). Public foresters, also referred to as service foresters, work for the county, district or state, and are employed usually by the state division of forestry (Westfall, 2001). Foresters who work for the forest industry firms are known as industry foresters while foresters who run their own forestry consulting business are referred to as private foresters (Zhang and Mehmood, 2001). Apart from these three, there are several other categories such as, extension forester, forest ranger, forest supervisor, acquisition forester, and urban forester. Extension forester deals primarily with educational and trainings; forest rangers take care of the National Forests and their duties include fire control, recreational

activities, thinning and harvesting; a supervisor supervises personnel and administers programs in the forest; acquisition foresters find land for their company to buy; and urban forester maintain healthy urban trees and forests (Monaghan and Londo, 2003).

Professional foresters offer a variety of services to landowners and these services provided may be either free (e.g., public foresters) or with a fee (e.g., private foresters) (Zhang et al., 1998). Foresters providing technical assistance on fee or contract basis and whose services are offered to general public rather than to a single full time employer are referred to as consulting foresters (Kronrad and Albers, 1984). Landowners seeking professional assistance for managing their forestlands are unacquainted with the consulting forester's services and fees. Forestry extension and other forestry outreach organizations recommend that landowners contact professional foresters prior to attempting timber harvesting/marketing or other forest-based activities. However, many private landowners in West Virginia are unaware of the different kinds of services these foresters provide and the fees they charge for each service. While previous studies (Munn and Watkins, 2001; Henly et al., 1990; Hodges and Cubbage, 1986; Kronrad and Albers, 1984, Kronrad et al., 1980; Martin, 1977) have reported the various services offered and fees charged by consulting foresters in other states, there currently exists no comprehensive list of services rendered by consulting foresters in West Virginia nor associated fees charged for those services that might give private forestland owners an idea of the investment of time and money that might be required to carry out these various activities. Thus, this project was conducted to generate a list of forestry services available to West Virginia private forestland owners and to estimate average fees associated with those services.

Purpose and Objectives

The main intent of this project was to make known, in a general sense, the suite of services offered by foresters in West Virginia and to provide an idea of how much a private forestland owner might pay for these services. The information on the services and fees allows the landowner to anticipate how much he or she might have to spend to implement a forestry practice on their property with the assistance of a consulting forester.

The overall purpose of this project is to compile a document which illustrates the various services and fees offered by consulting foresters in West Virginia. The specific objectives of this study include:

1. Identify various services offered by the consulting foresters in the state.
2. Document the average fees and range of fees for each service offered.
3. Identify the standard fee structure for the services offered.
4. Depict the characteristics of the consulting forester firm.
5. Identify the current challenges faced by the consulting foresters.

Results from this study will be beneficial to the private landowner when selecting a forester to assist them with forestry practices and to extension agents, service foresters, and other educators who can deliver the information to landowners seeking technical assistance from consulting foresters.

Literature Review

NIPF Landowner Objectives

Forests are considered important natural resources available to mankind. Apart from timber, these forestlands provide numerous amenities such as recreation, aesthetic landscapes, wildlife habitat, clean water and air (Flora, 1992). In West Virginia, millions of acres of forestland are managed by private landowners. Private landowners who own these forests have diverse objectives in managing their property.

The general objectives of the landowners may be based on forest resources like timber, wildlife, recreation and aesthetics or human benefits like income production, long-term investment, and personal satisfaction (McEvoy, 1998). The objectives of the NIPF landowners in West Virginia include timber production, wildlife habitat improvement, prevention of soil erosion, recreation, forest road construction, and improved appearance and water quality (Jennings, 2003). The objectives depend on the location and type of forests, which are discussed below. These objectives differ based on different factors such as available resources, size of the property, occupation of the owner, and available cost-share programs. Some landowners believe that the forest property is similar to any agricultural land and a revenue generating resource. Landowners view trees as any agricultural crop, which are to be harvested and replanted to meet necessities (Bliss, 1993). Usually most landowners managing their land are not dependent of income generated from forests, but, factors like retirement, periodic need of money, and products for personal use drive them to harvest their woods (Bliss and Martin, 1990). But, studies of Jones et al., (1995) and Esseks and Moulton (2000) have shown that timber production is not the primary objective of many NIPF landowners. In spite of several state and federal incentive

programs, timber production was found lower on the private non-industrial forest (PNIF) lands (Young et al., 1985).

Apart from timber, landowners can make money even from other activities like leasing their lands for hunters. In Alabama, due to low stumpage prices, landowners increased the fees for hunting leases which not only increased the earnings but also improved the wildlife management activities on their lands (Hussain et al., 2004). A study conducted in seven mid-south states showed that environmental protection is high among the NIPF owners in the region (Bliss et al., 1997). Aesthetics and recreation were the prime reasons of owning the forestlands rather than timber production and land investment (Birch, 1996).

In order to take into account the multiple objectives of landowners and attain maximum benefits, proper management plan is essential. To promote forest management on these private forestlands, Congress shaped a Forest Stewardship Program (FSP) as part of the 1990 Farm Bill. The program provides an opportunity for landowners to define their objectives (Egan, 1997). Obtaining a stewardship plan prepared by a professional forester is the first step in the forest stewardship program (Kays and Drohan, 2004).

Landowners with these multiple objectives need appropriate guidance and assistance for management that can be provided by qualified forestry professionals. NIPF landowners are always looking for professional assistance so as to meet their objectives (Bliss et al., 1997). Among the different types of assistance such as financial, workshop and technical assistance, most landowners requested technical assistance (*from foresters*) (Magill, 2004a). Technical assistance was the second most ranked attribute next to stewardship planning when the landowners of FSP were surveyed (Jennings et al., 2004).

Role of Assistance Foresters

In the profession of forestry, a person who has had special education, training and experience is known as a *forester* (Helms, 2002) and his or her duties include management plan preparation, timber appraisals, timber sale administration, marketing, wildlife habitat improvement, boundary marking, timber stand improvement operations, and aesthetic improvements (Westfall, 2001; Zhang et al., 1998).

The major groups of forestry professionals include public foresters, private foresters and industry foresters. Public foresters, also referred to as service foresters, work for the county, district or state, and are employed usually by the state division of forestry (Westfall, 2001). They generally do not charge for their services if rendered to private landowners. Service foresters play a key role in assisting many forest management activities (McGill et al., 2004; Westfall, 2001) including most of the state forest health programs (Billings, 2000). Industry foresters work for forest industry firms and may or may not charge for their services to the landowners (Zhang et al., 1998). *Consulting forester* is “a professional... who devotes not less than 75 percent of his working time each year to performing... technical forestry work... on a fee or contract basis” and who offers his services “to general public rather than to single full-time employer (Stuart, 1979).”

Studies in the past have shown that professional foresters play an important role in assisting landowners engaged in forest management. Royer and Kaiser (1985) studied the association between regeneration and professional assistance in southern pine regions, which showed that two-thirds of the regeneration investments accounted for professional assistance as compared to one-eighth without any assistance. Timber management is highly influenced by the assistance of a professional forester (Westfall, 2001; Egan, 1997; O’Hara and Reed, 1991;

Schenpf and Baumgartner, 1988) and NIPF landowners making timber harvest decisions without the guidance of a professional forester are often prone to damage the site and residual stand (Jones et al., 1995). Significant increase in stumpage prices of aspen was observed with the assistance of a professional forester in Minnesota (Henly et al., 1990).

In some instances, foresters even provide assistance in land surveying, urban forestry and landscaping, Christmas tree production, tax preparation, and legal or other natural resource-related matters. Services of these foresters also include forest reconnaissance, management planning, timber marking, forest pest control advice and product marketing and utilization assistance (Bliss and Martin, 1990).

Forest owners who own small parcels of forest lands as a result of fragmentation rarely seek advice from foresters, which is contrasting to landowners who own large parcels of land (DeCoster, 1998). As tract size becomes smaller, the management objectives of the landowners become unclear related to timber production (Olson, 1979). However, landowners of small tracts of forest lands also need assistance from foresters. For example, Gan and Kolison, (1999) have shown that minority landowners (landowners owning about 100 acres) of southeastern Alabama required technical assistance for various forest management activities such as, regeneration, management planning, timber marketing/sales, livestock grazing, fire prevention, wildlife management and disease control.

Foresters get updates regarding changes in tax laws and can help landowners who are concerned about the taxes (Kingsley et al., 1988). In Minnesota, members of Tree Growth Tax Law (TGTL) require landowners to have a management plan in order to be eligible for a lower tax rate (Rathke and Baughman, 1996).

Proper management of the forestland requires appropriate guidance and assistance, which can be provided by qualified forestry professionals. Changes in NIPF management practices can be brought by both the public sector (i.e., through public foresters) and private sectors (i.e., through personal contact with private forester) (West et al., 1988).

Landowner Awareness

In order to improve the forests for production and conservation purpose, landowners are always searching for information and professional advice. However, many are not aware of the assistance available to them. Studies in West Virginia showed that about 49% of the landowners were unaware of whom to contact for forestry assistance (Birch and Kingsley, 1978) and though aware, were not sure from where to get the assistance (Kingsley et al., 1988).

In Pennsylvania, only 10% of NIPF landowners had written forest management plans and less than 20% of timber harvesting from them is under the supervision of a professional forester (Jones and Finely, 1993). A great number of landowners in the south, though having multiple objectives do not seek professional assistance and ones seeking assistance may receive it from state agency personnel (Wicker, 2002). Landowners of Alabama did not receive much technical assistance in the past, and they are willing to obtain the consulting foresters' services if they were feasible through grants or loans (Gan et al., 2003). Even motivated landowners find it difficult to obtain technical advice and services (Field, 1986). Landowners' lack of knowledge in forest management motivates them to seek assistance of a consulting forester (Kronrad et al., 1980).

Consulting Foresters

Due to a heavy workload, it is difficult for most Department of Natural Resources (DNR) foresters to spend time to assist and contact all the landowners (Shockley and Martin, 2000). A consulting forester therefore comes into the picture and acts as a *catalyst* in forest management (Milliken, 1988). Studies conducted nationally show that there is a gradual increase in the number of consulting foresters and acres under their management (Field, 1986).

Among different groups of foresters, consulting foresters contribute about 50% of the assistance offered to NIPF landowners and show active participation while assisting these landowners (Zhang et al., 1998). They are also involved in writing the FSP plans. A five-year evaluation of the program in WV showed that about 62% of the plans were written by consulting foresters (Egan et al., 2001) and a ten-year evaluation showed that about 50% of the FSP plans were written by consulting foresters (Jennings, 2003). In Georgia, most of the forest management decisions were influenced by consulting firms (Hodges and Cubbage, 1986). In southern pines, consulting foresters advised most of the landowners than public or industry foresters during regeneration decisions (Royer and Kaiser, 1985).

Landowners seek assistance of the consulting foresters who work on a fee or contract basis. The major clients of consulting foresters tend to own 100 to 500 acres. Landowners owning 400 acres or more receive assistance from consulting foresters (Royer and Kaiser, 1985). Wealthier clients are more likely from the South Central and Pacific Southwest regions in the United States (Field, 1986).

The fee structure or method of payment for these consulting foresters depends on the nature of the work. Typically, fees are charged on a per acre basis, hourly basis, daily basis, or percent of the sale revenues (Kronrad and Albers, 1984). The most common fee structure

adopted is on an hourly basis or daily basis. Standard hourly and daily fees are observed in all cases with means ranging from \$45 to \$50 per hour and \$250 to \$300 per day (Munn and Watkins, 2001). For services like timber sale administration, charges are based on a percent of the sale revenues. Kronrad et al., (1980), reported that the average percent for timber sale in Massachusetts was 12 percent, with a range from 10 to 15 percent. Timber sale administration in North Carolina had a mean of 8.3 percent (Kronrad and Albers, 1984) and Mississippi had a mean ranging from 7.75 percent to 8.55 percent depending on the tract size (Munn and Watkins, 2001). Activities like management plan preparation, regeneration, and prescribed burning are charged a fee on a per acre basis. Study of Munn and Watkins (2001) showed that the average fees for preparing management plans ranged from \$5.00 to \$6.00 per acre. Consulting forester fees are considered as expenditures in forest management. A study of Mississippi NIPF landowners showed that the consulting forester's fees were the third largest expenditure following property taxes and planting costs (Arano et al., 2002).

Consulting foresters are members of professional organizations and these are indicators of their professional acceptance and commitment (Kronrad and Albers, 1984). Most of them are certified and members of different professional organizations like Society of American Foresters (SAF), Association of Consulting Foresters (ACF), and other forestry associations. A study conducted in Pacific Northwest showed that 70% were members of SAF, 27% were members of ACF, and approximately 39% were members of American Forestry Association (Schenpf and Baumgartner, 1988). Members of ACF follow the *code of ethics* while practicing forestry. Competition exists in every profession and consulting foresters always had a problem of competition from other assistance foresters like public service foresters, industry foresters and sometimes even other consulting foresters (Field, 1986).

Apart from these studies that have investigated fees and services of the consulting foresters, little has been done in West Virginia. This project will fill a void by documenting the status of fees and services rendered by West Virginia foresters in this earliest period of the 21st century.

Methodology

A mailed survey questionnaire was used to identify the services offered and fees charged by consulting foresters in West Virginia. The development of the target population of foresters was developed simultaneously with the survey instrument.

Selection of consulting forestry firms

All the consulting foresters or firms included in the Appalachian Hardwood Center (AHC) website (2005) and Directory of Forestry- Related Professionals (2005) were selected as the population for the survey. The database consisted of 127 consulting foresters or firms. West Virginia Division of Forestry Service Foresters and other groups of natural resource professionals such as extension foresters, wildlife specialists, wood scientists and other forestry related professionals who do not charge fees for the technical assistance services they offer were excluded from the database.

The survey instrument

The survey instrument (See Appendix B) used in this study was a mailed questionnaire and was patterned after a similar study conducted by Munn and Watkins (2001). Foresters or firms not offering forestry services were separated from others with a question that inquired whether they offer forestry services and were asked to return the questionnaire if they did not. Other questions were formulated to characterize the makeup of the forestry consulting firms in the state such as, number of clients engaged, type of clients, mode of advertisement, counties where most of the work is concentrated, willingness to travel, ownership type served, number of

employees, professional organizations, professional licenses and certifications, number of years in business, and the two biggest challenges they face.

Tables were used in the questionnaire to characterize the range of services and fees (Appendix B). These tables provided a list of services in rows with answer blanks for the various methods of payments (fee structures) in columns. The columns listing the common modes of payments included: dollars/acre, dollars/hour, dollars/day, percent of sale revenues and others (if any). The tables also included columns where the respondents could indicate the average number of jobs and average acreage of a particular service that their firms provided in an average year. A column for general comments was also provided.

Data for this project was collected using Dillman's tailored design method (Dillman, 2000). Questionnaire mailings were made to the selected foresters in the following manner beginning in the second week of July 2005:

1. The first mailing in the second week of July, 2005 included the five-page questionnaire and a cover letter (Appendix A), stating the need for the study and requesting their participation.
2. After two weeks a reminder letter (Appendix A) was sent to all the participants, thanking them for their participation and requesting the non-respondents to complete the survey and return the questionnaire.
3. A month later, in the second week of August, 2005, a follow-up mailing including a questionnaire (Appendix B) was sent to all the non-respondents to improve response rates.

Return postage was provided in both the first and second questionnaire mailings to increase the response rate. Cover letters contained a confidentiality statement. All return envelopes were coded to decrease the number of unnecessary mailings.

Data Analysis

Data from returned questionnaires were entered in MS Excel along with the mailing code for each respondent. Of the total respondents who answered the questionnaire, a few did not answer each and every question. So number of responses received for each individual question was recorded (n) separately. Summary statistics were computed for each question.

Arc GIS 9.0 was used to evaluate where the respondents render their services. A shape file of the West Virginia counties with a scale of 1:24000 was downloaded from the West Virginia GIS Technical Center (2005) and added to Arc GIS 9.0. An attribute with number of foresters working in each county was added to the county attribute table. A natural break classification was used and eight classes were created based on the number of consulting foresters working in each county.

Content analysis (Weber, 1990) was used to analyze the responses for the question, “What are the two biggest challenges faced by the company?” Nine major categories were developed for these open-ended questions and each response was assigned to one of the categories. Initially 20 sub-categories were developed which were collapsed into 9 nine major categories and only a couple of them had responses which had more than one category.

Results

Response rate

The total population for initial mailings included 127 consulting foresters. Two surveys were returned with insufficient addresses. Thus, the final population for the survey consisted of 125 consulting foresters or firms. Seventy questionnaires were returned resulting in a response rate of 56 percent. Of the seventy respondents, 17 did not offer any forestry services. Sixteen of them quoted the reason that they were either retired or no longer practice forestry. One respondent is a timber investment and management organization (TIMO) which engages consulting firms to manage their investment properties.

Fifty-three respondents offered forestry services, of which, three respondents offered services in the neighboring states of West Virginia like Maryland, Virginia and Pennsylvania and did not complete the questionnaire. Therefore fifty survey responses were used in the survey summaries.

Consultant Profile

Forestry consulting firms in West Virginia employed an average of two (2) foresters, with a maximum of 7 and a minimum of 1 (Table 1). However, most the firms (64%) had only one forester who is a full time employee. The average number of employees working for these firms was four (4), ranging from 0 to 43 (Table 1). Only one firm reported having 43 employees, all others had 12 or less. The majority (63%) of the firms had only one employee suggesting that the average is skewed by an extreme value; the median number of employees was one.

Forty-nine responded to the question pertaining to ownership types. The majority (56%) were sole proprietors, followed by corporations (13%), LLCs (9%) and partnerships (1%; Table

2). Most respondents (45%) were owners of their firms. A lesser number had titles like consulting forester, forester, president and vice president (Table 3).

Table 1. Number of foresters and employees of forestry consulting firms in West Virginia, 2005

Foresters/ Employees	n ¹	Mean	Min.	Max.
No. of Foresters working in the firm	45	2	1	7
No. of Employees working	46	4	0	43

¹ - Number of responses for each question.

Table 2. Ownership types for forestry consulting firms in West Virginia, 2005

Ownership type	Frequency	Percent
Sole Proprietorship	28	56
Corporation	13	26
Limited Liability Company (LLC)	9	18
Partnership	1	2

Note: Percentages were based on n=49 and do not total 100 due to multiple responses.

Table 3. Roles/titles of respondents of the forestry consulting firms in West Virginia, 2005

Role/Title	Frequency	Percent
Owner	21	45
Consulting Forester/ Consultant	12	26
Forester	12	26
President	7	15
Vice-President	2	4
Director of Operations WV	1	2
Forest Technician	1	2

Note: Percents were based on n=47 and do not total 100 due to multiple responses.

Business and Clients

Forty-seven respondents said that they had been engaged in forestry business from 3 years to 50 years, with a median of 15 years and mean of 19 years (Table 4). The minimum acreage requirement for a firm to consider a consulting job ranged from 1 acre to 250 acres. Although the mean acreage was 22 acres and median acreage was 10 acres (Table 4). Few respondents (5) said that there is no set requirement and one respondent quoted that money (min. \$1000) was the criteria and not acreage.

The average number clients engaged each year is 39, with a minimum of 2 and maximum of 300 (Table 4). However, the median number of clients for these firms is 20 and only 10% of the firms work with more than 100 clients in a given year. West Virginia consulting firms provide about 20 hours per month of *pro-bono* services (for example, free information, advice, or visitations to a landowner before implementation of any practice). The average number of hours of *pro bono* services per forester works out to be about 15 hours per month. Forty-seven responded to the percentage of client types for their consulting business. On an average 48% of the clients were small NIPF landowners (owning less than 100 acres; Table 5). However 31% of the client types were large NIPF landowners (owning greater than or equal to 100 acres). Others included industry (7%), other investors (5%), trust/estates (3%), government (3%) and financial institutions (2%).

Table 4. Consulting work carried out by a firm in and around West Virginia, 2005

Clients/ Consultant Work	n ¹	Mean	Median	Min.	Max.
Years in Business	47	19	15	3	50
Minimum acreage requirement	46	22	10	1	250
No. of Clients engaged each year	47	39	18	2	300
Pro-Bono work (hrs/month)	49	20	15	0	80

¹ - Number of responses for each question.

Table 5. Percentage of clientele by ownership types of the consulting firms in West Virginia, 2005

Type of Clients	Min.%	Mean %	Max. %
Small NIPFs (<100 acres)	0	48	100
Large NIPFs (>= 100 acres)	0	31	95
Industry	0	7	50
Other Investors	0	5	50
Trust/ Estates	0	3	25
Government	0	3	90
Financial Institutions	0	2	30
Other	0	1	20

Included was a question concerning liability insurance policy for the forestry business. Half of the respondents (50%) did not have any liability insurance policy. But, 44% of the respondents had some kind of liability insurance policy for their businesses.

Consultant Work Distribution

Consulting foresters travel around the State to offer their services to different clients. Of the 47 consulting foresters who responded, 33 are willing to travel from 30 to 500 miles and 14

are willing to travel within 1 to 6 hours (Table 6). On average consulting foresters are willing to travel 142 miles or 2.5 hours from their office.

Table 6. Willingness to travel of West Virginia consulting foresters to perform a consulting job, 2005

Travel	n ¹	Min.	Mean	Max.
Willingness to travel (MILES)	33	30	142	500
Willingness to travel (HOURS)	14	1	2.5	6

¹ - Number of responses for each question.

To identify the counties in the state where most of the forestry consulting work is conducted, a question was framed asking them to list three counties in WV where most of their work is conducted. Forty nine (49) respondents responded to this question and we received a wide range of responses. Forestry consulting work occurred in 45 counties out of the 55 counties in the state. Of these, most consultants (n=8) worked in Hardy County, followed by Greenbrier (n=6), Hampshire (n=6), Randolph (n=6), Braxton (n=5), Monroe (n=5), and Roane (n=5; Figure 1).

Figure 1: Forestry consulting in West Virginia by County, 2005.

Advertisement

Included was a question pertaining to the advertisement of the firm, to which forty nine foresters responded. The mode of advertisement with highest mean (83%) was *referrals* (Table 7). The most common or frequent value observed for referrals was 100 percent. Thirteen percent responded saying that they had other modes of advertisement such as, internet, direct mail and repeat business. Only 2 percent advertised through yellow pages, 1 percent through posters and

billboards, 1 percent through newspaper ads, and 1 percent through pamphlets. Of the 47 respondents, none advertised through radio or television ads.

Table 7. Percentage responses to the mode of advertisement of Consultants in West Virginia, 2005

Mode of Advertisement	Min. %	Mean %	Max. %
Referrals	0	83	100
Others ^a (Internet, Direct mail, Repeat business)	0	13	100
Yellow Pages	0	2	30
Posters/Billboards	0	1	50
Newspaper ads	0	1	20
Pamphlets	0	1	20
Radio/ TV ads	-	-	-

^a – Others were filled in by the respondents.

Organizations and Licenses

Distribution of consulting foresters by professional organizational membership shows that 48 percent are members of Society of American Foresters (SAF) and 27 percent are members of Association of Consulting Foresters (ACF; Figure 2). Thirty-nine (39) percent of the respondents were members of West Virginia Forestry Association (WVFA). Other organizations included, Woodland Owner Association (WOA; 9%), Virginia Forestry Association (VFA; 9%), Ohio Forestry Association (OFA; 7%), International Society of Arboriculture (ISA; 2%), and West Virginia Association of Realtors (WVAR; 2%). Seventy-six percent (76%) of the consulting foresters are licensed WV foresters and about 15% had out-of-state licenses. A small percent (27%) percent had a SAF certified forester license. Others (21%) had licenses like real estate appraisers or agents, tree farm inspectors (Table 8).

Figure 2: Distribution of consulting foresters in West Virginia by organizational memberships, 2005.

Table 8. Licenses and certifications of consulting foresters in West Virginia, 2005

Licenses/ Certifications	Frequency	Percent
West Virginia Registered Foresters	26	76
SAF certified forester (CF)	9	27
Out of State License	5	15
Others (Real estate, tree farm, etc.)	7	21

Note: Percentages were based on n=34 and do not total to 100 due to multiple responses.

Services and Fees

Services offered by the consulting foresters can be categorized under forest management, timber sale administration, timber stand improvement, and miscellaneous. But, for this study thirty-six different kinds of services were identified and tabulated in the questionnaire (Table 9; Appendix B). Some respondents included services like invasive plant analysis, timber marketing, gas well site approval, hardwood lumber inspection, timber damage and oil/ gas development, routine property visits for absentee landowners and oil and gas environmental consulting in the others category. The number and percentage of responses for each service offered are reported in Table 9.

Based on the percentage of responses, services offered by more than 50 percent of the consulting foresters who responded were sorted out which include six (6) services. The top six services include timber appraisals, timber sale administration, timber inventory and cruising, expert witness testimony, and forest management plans and timber damage/ trespass appraisals (Figure 3). For each of those services, the average fees charged along with the most common fee structures used are tabulated (Table 10). Although fees with different methods of payment are reported for only six services in Table 10, a detailed description of all the fees and services based on different fee structures is shown in Appendix C.

Table 9. Services offered by the Consulting foresters or firms in West Virginia, 2005.

Services Offered	n ¹	Percent
Accident Investigation	6	12
Boundary Maintenance	19	38
Database Management	6	12
Environmental Assessments	9	18
Expert Witness Testimony	31	62
Financial Analysis	11	22
Forest Management Plans	31	62
Forest Pest and Disease Inspection	12	24
Forest Stewardship (Cost share) Plans	21	42
Forest Tax Consulting	9	18
GIS and Mapping	11	22
Growth and Yield Modeling	8	16
Harvest scheduling and analysis	14	28
Hunting lease Administration	10	20
Land Sales	11	22
Land Surveying	4	8
Log Check Scaling	6	12
Log Marketing	6	12
Log Procurement	2	4
NTFP Assessments and Management	4	8
Prescribed Burning	2	4
Real Estate Appraisals	11	22
Reclamation of Logging Disturbances	6	12
Reforestation (site prep/tree planting)	4	8
Road Design/Layout	18	36
Safety Seminars	2	4
Soils Mapping	4	8
Third Party Audits	4	8
Timberland Acquisition	13	26
Timber Appraisals	39	78
Timber Damage/Trespass Appraisals	31	62
Timber Inventory and Cruising	33	66
Timber Sale Administration	39	78
Timber Stand Improvement	10	20
Urban Forestry Arboriculture	0	0
Wildlife Habitat Improvement	8	16
Others ²		
Invasive plant Analysis	1	2
Timber Marketing (Hired out)	1	2
Gas well site approval	1	2
HW lumber inspection	1	2
Timber damage and oil/gas development	1	2
Routine property visits (absentee)	1	2
Oil and gas environmental consulting	1	2

¹ Number of consultants who offer the service² Others were filled in by the respondents

Figure 3: Distribution of top six services offered by consulting foresters in West Virginia, 2005.

Table 10. Fees charged by the consultants for top six services offered in West Virginia, 2005.

Services Offered	n ¹	Unit	Min.	Mean	Max.
Timber Appraisals	5	\$/acre	5	5.90	7
	20	\$/hour	20	44.50	80
	13	\$/day	200	338.46	640
	8	% of Sale	1	10.75	20
Timber Sale Administration	10	\$/hour	20	45.50	80
	4	\$/day	240	387.50	640
	35	% of Sale	8	11.71	30
Timber Inventory and Cruising	5	\$/acre	3	4.80	6
	16	\$/hour	20	42.50	70
	13	\$/day	150	296.92	450
Expert Witness Testimony	25	\$/hour	20	72.00	200
	8	\$/day	250	430.00	640
Forest Management Plans	12	\$/acre	4.75	6.07	7.00
	14	\$/hour	20	37.86	60
	9	\$/day	200	315.56	480
Timber Damage/Trespass Appraisals	23	\$/hour	20	48.04	125
	9	\$/day	240	328.89	500
	5	% of Sale	1	4.8	10

¹ - Number of consultants offering the service.

The most commonly used methods of payment (units) for forestry services include \$/acre, \$/hour, \$/day and % Sales. Figure 4 shows the distribution of fee structures with regards to each service offered, for the top six ranked services. All the services had one or more than one fee structure, but, \$/ hour and \$/day were the most common fee structure for the six services. Timber sale administration, however, was most commonly charged as a percentage of sale revenues.

From the entire data (Appendix C), it clearly shows that the most common fee

structure or method of payment used by consultants is dollar per hour. The \$/hour fees (averages and ranges) were sorted out for each service (Table 11). This table gives a clear picture of how much each service costs on an hourly basis. The services are sorted based on the maximum average dollar per hour fees for each service. The most common fee structure or method of payment used for services like timber sale administration is percentage of sale revenues and for services like forest stewardship plans is dollar per acre (Table 12).

Figure 4: Distribution of fee structures for the six most offered services by consulting foresters in West Virginia, 2005.

Table 11. Hourly fees charged for forestry services offered by consulting foresters in West Virginia, 2005.

Services Offered	n ¹	Min. \$/hr	Mean \$/hr	Max. \$/hr
Expert Witness Testimony	25	20	72.00	200
Land Surveying	3	50	68.33	80
Accident Investigation	6	20	64.17	125
Real Estate Appraisals	9	20	59.44	100
Safety Seminars	3	40	53.33	70
Financial Analysis	8	20	50.63	100
Log Check Scaling	6	40	48.33	60
Timber Damage/Trespass Appraisals	23	20	48.04	125
Prescribed Burning	2	45	47.50	50
GIS and Mapping	9	20	46.67	75
Timberland Acquisition	10	25	46.50	80
Forest Tax Consulting	7	20	45.71	60
Growth and Yield Modeling	7	20	45.71	60
Road Design/Layout	13	20	45.38	100
Boundary Maintenance	15	20	45.20	100
Log Procurement	2	40	45.00	50
Timber Appraisals	20	20	44.50	80
Third Party Audits	4	40	43.75	50
Log Marketing	5	40	43.00	50
Forest Pest and Disease Inspection	9	20	42.78	70
Database Management	6	20	42.50	70
Reforestation (site prep/tree planting)	2	40	42.50	45
Timber Inventory and Cruising	16	20	42.50	70
Environmental Assessments	7	20	42.14	80
Harvest scheduling and analysis	10	20	41.50	75
Land Sales	5	20	40.00	50
Timber Stand Improvement	6	20	40.00	70
Hunting lease Administration	8	5	38.75	60
Soils Mapping	4	30	38.75	50
Forest Management Plans	14	20	37.86	60
Reclamation of Logging Disturbances	4	30	37.50	50
NTEP Assessments and Management	3	20	36.70	50
Wildlife Habitat Improvement	4	20	33.75	45
Urban Forestry Arboriculture	0	-	-	-
Others ²				
Gas well site approval	1	-	45.00	-
Oil and gas environmental consulting	1	-	30.00	-
Routine property visits (absentee)	1	-	30.00	-
Timber damage and oil/gas development	1	-	30.00	-

¹ Number of Consultants charging by dollar per hour.

² Others were filled in by the respondents.

Table 12. Common Fee Structures for services offered by consulting foresters in West Virginia, 2005.

Services Offered	n ¹	Min.	Mean	Max.
Timber Sale Administration	35 (% Sale)	8	11.71	30
Forest Stewardship (Cost share) Plans	15 (\$/acre)	4	5.47	7
Others ²				
Invasive plant Analysis	1 (\$/day)	-	350.00	-
Timber Marketing (Hired out)	1 (\$/day)	-	150.00	-
HW lumber inspection	1 (\$/day)	-	240.00	-

¹ Number of Consultants with respective fee structures.

² Others were filled in by the respondents.

Challenges

To identify the problems or challenges of the consulting foresters, an open ended question was asked “What are the two biggest challenges facing your company today?” About 46 respondents answered this question focusing on major current issues. Nine major categories developed include cost of doing business, competition, employees, employment, forest management, awareness/ people, markets, environmental laws and regulations/ politics, and health problems.

The two major current challenges faced by the consultants are cost of doing business (41%) and competition (36%). Other challenges include employees (26%), forest management (24%), environmental laws and regulations and politics (15%), employment (13%), awareness and people (13%), markets (13%), and health problems (4%).

Consulting foresters facing problems in cost of doing business are mostly related to taxes, health insurance, fuel and transportation cost, getting paid by landowners and even advertising. Consulting foresters usually compete with service foresters, industry procurement foresters, moon-lighters and even “pin-hookers” (Individuals who buy something with an intension of re-

selling it at a profit). Employee issues include, finding qualified professionals, lack of cooperation, loggers and logging jobs. Clear cutting, fragmentation, deforestation, landowner's poor management skills and even whitetail deer fall under forest management. Others include politics (red tape), time and work load, poor depressed lumber markets, awareness of general public regarding the forestry consultants, and even issues of health such as age.

Discussion

Consulting foresters are an important group of professional foresters providing technical assistance to the private non-industrial forest landowners. They offer a wide variety of services related to forest management and timber sales and charge certain amount of fees for each service. The fee structure for each service depends on the nature of the job. A profile of consultants, services they offer and fees they charge for each service in West Virginia is documented in this study. This information on services and fees allows the landowner to anticipate how much he or she has to spend for implementing a practice on his or her property with the assistance of a consulting forester. Several studies (Henly et al., 1990; Hodges and Cubbage, 1986; Kronrad and Albers, 1984; Kronrad et al., 1980) have been conducted in the past regarding the consulting forester fees during that period. The results show some similarity and dissimilarity with the previous studies and the most recent study conducted in Mississippi (Munn and Watkins, 2001), which are discussed below.

In West Virginia, most of the consulting forestry businesses (56%) are under sole proprietorship with very few corporations or partnerships. Typically consulting forestry firm in West Virginia is unincorporated and has only one owner (45%). National survey of consultants showed that 68 percent of the consulting foresters are sole proprietors (Field, 1986). About 50 percent of the consulting foresters were sole proprietors in Georgia and Mississippi, (Hodges and Cubbage, 1986; Munn and Watkins, 2001). The average firm size is small with at least one full time forester and one employee. Employees were either part time or seasonal and some firms had up to 12 employees. Similar kind of organizational structure was shown by a national survey in which firms in the Northern U.S. had no assisting full time personnel and only three seasonal employees (Martin, 1977). Consulting foresters have been engaged in the business of forestry

from 3 to 50 years with an average of 15 years. Average consulting years of Mississippi consultants was slightly more than 14 years (Munn and Watkins, 2001). The number of clients engaged per year by these foresters range from 2 to 300 with an average of 39 and majority of them are small NIPF landowners with less than 100 acres of land. Other client types include large NIPF landowners with more than 100 acres, other investors, industry, government, trust/estates, and financial institutions (Table 5). On an average 48% of the clients of the consultants are small NIPFs and 31% are large NIPFs. In Alabama, most of the clients of consulting foresters own 100 to 500 acres or more, whereas landowners owning less than 100 acres are clients of public and industrial foresters (Zhang et al., 1998).

Issues discussed in this study such as minimum acreage requirement to consider a consulting job and the hours of pro-bono work per month are new. Most of the consultants had some minimum acreage requirement ranging from 1 to 250 acres. The average set acreage requirement is 10 acres which includes most of the small NIPFs. Although for few there is no set acreage requirement. To these landowners, they offer few hours of pro-bono work which averages to about 20 hours per month. Willingness to travel to get a consulting job done shows the dedication of the foresters towards consulting. Consulting foresters are willing to travel from 30 to 500 miles or 1 to 6 hours away from their office (Table 6). Gas price, which increases the transportation cost, is one of the constraints cited by few consulting foresters in the challenges section. Only forty four percent of the consulting foresters had some kind of liability insurance policy for their consulting businesses. Expensive insurance policies do not provide an incentive for the foresters to get liability insurance.

In forestry consulting business, consultants are usually referred to their clients (landowners) by other landowners, state-service foresters, industry foresters and sometimes even

other consulting foresters (Field, 1986). In this study, consulting foresters received their business mostly through referrals (83%). Recently due to vast spread of information through internet, most landowners are obtaining the information about the consulting foresters either from individual, state or even university websites. But, still techniques like posters/billboards, yellow pages, newspapers, and pamphlets are in practice. However, from the responses we received, none advertised through radios and televisions.

Consulting foresters are licensed professional foresters and all the respondents who answered the question had some kind license. On an average they had at least two licenses. Most of them (76%) were WV registered foresters and a few were SAF certified (27%). Fifteen percent of them had out-of-State license which is less compared to 44 percent out-of-state licenses in Mississippi (Munn and Watkins, 2001). There are several organizations of which most consulting foresters are members such as Society of American Foresters (SAF), Association of Consulting Foresters (ACF), State forestry associations, Woodland Owner Association (WOA) etc. Membership in these organizations shows us the professional acceptance and commitment of the forester (Kronrad and Albers, 1984). This study reveals that 43 percent of the consulting foresters are members of SAF as compared to 61 percent in Mississippi (Munn and Watkins, 2001), 51 percent in Georgia (Hodges and Cubbage, 1986) and 89 percent nationally (Martin, 1977). Twenty-seven percent are members of ACF and 39 percent are members of West Virginia Forestry Association (WVFA). In Mississippi, 24 percent are members of ACF and 69 percent members of Mississippi Forestry Association (MFA; Munn and Watkins, 2001). Other memberships included Ohio Forestry Association (OFA), Virginia Forestry Association (VFA), and Woodland Owner Association (WOA; Figure 2).

As quoted by Kronrad and Albers (1984), “consulting forester’s livelihood is dependant on satisfied clients,” hence, they offer a variety of services related to forest management, timber management and several other forestry related services. Services offered begin from management plan preparation to timber harvesting and sales. With enough knowledge in aspects like tax consulting, financial analysis, land sales, and real estate appraisals, they can assist landowners. Services offered by more than fifty percent of the consulting foresters surveyed include timber sale administration, timber appraisals, timber inventory and cruising, expert witness testimony, and forest management plans and timber damage/ trespass appraisals. This shows that 2/3rd of the services offered by more than fifty percent of the consultants are related to timber management.

Landowners usually seek the assistance of consulting foresters for timber sales. Seventy eight percent of the foresters surveyed provide timber sale administration. Timber sale administration is a combination of several other services like boundary maintenance, management plan preparation, GIS and mapping, harvesting scheduling and analysis, reforestation, timber inventory and cruising, and wildlife habitat improvement. Consultants charge a flat fee of the timber sales in terms of percent sale revenues. Ninety percent of the foresters providing timber sale administration have the fee structure of percent sale, which ranges from 8 to 30 percent. The average fee for this service is 12 percent which is slightly higher than that of the Mississippi consulting foresters which rounds to 9 percent (Munn and Watkins, 2001). On the other hand a timber appraisal which is also offered by seventy eight percent of the foresters surveyed is charged mostly on hourly basis. The average hourly fee for timber appraisal is \$44.50.

Forest Stewardship plans preparation is one of the services which are commonly charged on dollar per acre basis. The standard plan rates are \$375.00 plus \$4.75 per forested acre, of which the landowner get 75% reimbursement from the state. The data shows us that the range for writing a stewardship plan is \$4.00 to \$7.00, with a mean of \$5.47 (Table 12).

Although we find different fee structures for each service, data obtained reveals that the common fee structure used is dollar per hour. Expert witness testimony, offered by 62% of the consulting foresters has the maximum average \$/hour fee which was \$72.00/ hour (Table 11). Services like financial analysis, safety seminars, real estate appraisals, accident investigation and land surveying are charged on an average \$50.00 to \$70.00. About twenty one services have average fees ranging from \$40.00 to \$50.00 (Table 11). Very few services such as hunting lease administration, soil mapping, forest management plans, reclamation of logging disturbances, NTFP assessments and management and wildlife habitat improvement have average fees less than \$40.00. It is clear from this that if a landowner need assistance regarding a specific service, he or she has to invest on an average from about \$30.00 to \$70.00 an hour. These ranges vary from the study of Munn and Watkins (2001) for different services; a few services are charged more or less in Mississippi as compared to West Virginia.

Fees charged by Mississippi consulting foresters for owners owning less than 100 acres can be compared with West Virginia consulting foresters. The average fees for few services in Mississippi (MS) and West Virginia (WV) are discussed below. Management plan preparation is charged 5.83 dollars/acre in MS and 6.07 dollars/acre in WV. Boundary maintenance is charged \$ 45.20 per hour in WV and \$ 31.00 per hour in MS. Hunting lease administration is charged \$ 43.44 per hour in MS and \$ 38.75 per hour in WV. Forest tax consulting is charged \$ 63.75 per hour in MS and \$ 45.71 per hour in WV. Expert witness testimony is charged \$ 72.00 per hour in

WV and \$ 64.64 per hour in MS. From these examples cited above, we can see differences in fees in both the states.

As discussed earlier, most of the services charged on hourly basis are also carried out during timber sale administration; landowner need not spend separately on each service. During timber sales landowners are given an option for fee structure i.e., either percent of sales or hourly or daily basis. One advantage of selecting percent sales is that the consulting foresters have a vested interest in generating maximum income.

In accomplishing to satisfy private non-industrial forest landowners by offering a variety of services, these foresters face many challenges. The major challenges faced by the consulting foresters are cost of doing business and competition. With heavy taxes, health insurance, and transportation costs, it becomes difficult for a forester or firm to get the consulting job done. Competition with other foresters is an age old issue and is even shown from this study. Competitors of consulting foresters include public service foresters, industry foresters and even other forestry consultants (Field, 1986). Consultants experience competition from service foresters, industry foresters, and moon-lighters. Other challenges include employees and employment, time and work load, public awareness regarding forest management and consultant services.

This information should be propagated to all the NIPF landowners and professional foresters. Detailed study of other professional foresters is essential considering their demographics, consulting relationships, perceptions. Further assessment of differences in fees, perceptions, and general landowner relationships to better define their roles in serving private forest owners is required.

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APPENDICES

Appendix A: Cover Letters

July 11, 2005.

Dear Consulting Forester,

We are conducting a survey of the services offered and the fee structure of consulting foresters in West Virginia. Many private landowners are unaware of these fees and services; this survey is part of a research project designed to give forestland owners a general idea of the types of services available and about how much they might expect to pay for these.

Our intent in this survey is to contact the individuals of consulting firms who negotiate fees for forestry services. In the coming months, we will be conducting a follow-up survey of all foresters in West Virginia, including those with duties other than those providing direct technical assistance on private or industrial forest properties.

We hope that you will respond to the survey at your earliest convenience. Your participation is voluntary and you do not have to answer all of the questions. If you do not wish to answer the questionnaire, please let us know by returning the enclosed questionnaire blank or with a note in the self-addressed, stamped envelope.

Information you provide is strictly confidential and only summarized results describing the range of fees will be made public (for e.g., average fees charged). For information regarding your rights as a research subject, you may contact the Office of Research Compliance at 304-293-7073. If you have any questions regarding the survey, please feel free to contact us. Thank you very much for your help with this important study.

Sincerely,

Kathryn Arano, Ph.D.
Assistant Professor—
Forest Economics

David W. McGill, Ph.D.
Extension Specialist –
Forest Resources Management

Phone: 304-293-2941 X 2423
Email: Kathryn.Arano@mail.wvu.edu

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A WVU IRB approved copy of this letter is on file.

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Morgantown, WV 26506-6125

Equal Opportunity/Affirmative Action Institution

West Virginia University

Davis College of Agriculture, Forestry and Consumer Sciences

July 27, 2005

Dear Consulting Forester,

Two weeks ago a survey was mailed to you seeking information on forestry services and associated fees offered by your consulting firm. Since many private forest landowners in West Virginia are unaware of these fees and services, the survey will provide them a general idea of the types of forestry services available and about how much they might expect to pay for these.

If you have already completed and returned the survey, please accept our sincere thanks. If not, please do so at your earliest convenience. Your participation in this research project is completely voluntary and you do not have to answer all of the questions, but information you provide is vital to the success of the study. If you do not wish to answer the questionnaire, please let us know by returning the enclosed questionnaire blank or with a note in the self-addressed, stamped envelope.

Again, information you provide is strictly confidential and only summarized results describing the range of fees will be made public (for e.g., average fees charged). For information regarding your rights as a research subject, you may contact the Office of Research Compliance at 304-293-7073.

In the event you did not receive the survey questionnaire or if it has been misplaced, please contact us at 304-293-2941 x 2423 so that we can send you another one. Your contribution to the success of this study will be greatly appreciated.

Sincerely,

Kathryn G. Arano, Ph.D.
Assistant Professor –
Forest Economics

David W. McGill, Ph.D.
Extension Specialist -
Forest Resources Management

A WVU IRB Approved copy of this letter is on file.

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Equal Opportunity/Affirmative Action Institution

August 16, 2005

Dear Consulting Forester,

About a month ago, we sent a questionnaire to your firm requesting information about your forestry services and associated fees. To the best of our knowledge, it has not been returned.

The results that we received from those who responded are demonstrating a wide range of services and fees of consulting foresters and describe some of the issues facing this important industry in West Virginia. While these initial results offer useful information, your response to the survey is extremely important to more accurately define this range of various consulting activities and to give private forest landowners a more complete picture of the forestry consulting industry in the State.

We hope that you will fill out and return the enclosed questionnaire soon. Your participation in this research project is completely voluntary and you do not have to answer all of the questions. If you are already retired from the consulting business or if for any other reason you prefer not to answer it, please let us know by returning the enclosed questionnaire blank or with a note in the self-addressed, stamped envelope.

Again, information you provide is strictly confidential and only summarized results describing the range of fees will be made public (e.g., average fees charged). For information regarding your rights as a research subject, you may contact the Office of Research Compliance at 304-293-7073.

We sincerely appreciate your help with this research project.

Sincerely,

Kathryn G. Arano, Ph.D.
Assistant Professor –
Forest Economics

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**Appendix B:
Questionnaire**

Fees and Services of Consulting Foresters in West Virginia

July 2005

Sponsored by:

West Virginia University

Appalachian Hardwood Center—

Extension Service/Division of Forestry

Questionnaire

(Please check the appropriate boxes and fill the required blanks)

1. Does your firm offer forestry services? ☐ Yes ☐ No
If NO, please return the survey.
If YES, please answer the following questions.
2. What is your role/title? _____
3. How many foresters work for your firm? _____
4. On an average how many clients are you engaged with, each year? _____
5. How do most clients hear about your firm?
 Newspaper ads _____% Pamphlets _____% Posters/Billboards _____%
 Radio or TV ads _____% Referrals _____% Yellow Pages _____%
 Other _____%
6. How many hours per month does your firm spend with *pro bono* work (for example, free information, advice, or visitations to a landowner before implementation of any practice)? _____ hours.
7. List three counties in West Virginia where most of your work is conducted.
 a. _____
 b. _____
 c. _____
8. Typically how far from your office are you willing to travel to do a consulting job?
 _____ miles (or) hours (*Circle One*)
9. What is your minimum acreage requirement for your firm to consider a consulting job? _____ acres
10. Do you have a liability insurance policy for your forestry business?
☐ Yes ☐ No
11. Please describe your company:
Ownership type: ☐ Sole Proprietorship ☐ Partnership
☐ Corporation ☐ LLC §
Number of employees _____
Organizations affiliations _____
Licenses/Certifications _____
How many years in business? _____

§ LLC - Limited Liability Company

12. What percentage of your work is performed for the following client types?

Small NIPFs (<100 acres)	_____ %
Large NIPFs (>=100 acres)	_____ %
Industry	_____ %
Trust/Estates	_____ %
Financial Institution	_____ %
Government	_____ %
Other Investors	_____ %
Other	_____ %

13. What are the two biggest challenges facing your company today?

A. _____

B. _____

Following are questions related to the different services offered and average fees charged for each service. Based on the type of fees you charge, fill in average amounts, approximate number of jobs, and average acres your company has completed per year.

Table Ia. Please fill out fees charged, average number of jobs/acres conducted per year for services you offer.

Services Offered	-----Fees charged (enter amounts)-----					
	\$/acre	\$/hour	\$/day	% of Sale Revenues	Other	Ave. # jobs Ave. Acres per year
Accident Investigation	_____	_____	_____	_____	_____	_____
Boundary Maintenance	_____	_____	_____	_____	_____	_____
Database Management	_____	_____	_____	_____	_____	_____
Environmental Assessments	_____	_____	_____	_____	_____	_____
Expert Witness Testimony	_____	_____	_____	_____	_____	_____
Financial Analysis	_____	_____	_____	_____	_____	_____
Forest Management Plans	_____	_____	_____	_____	_____	_____
Forest Pest and Disease Inspection	_____	_____	_____	_____	_____	_____
Forest Tax Consulting	_____	_____	_____	_____	_____	_____
Forest Stewardship (Cost share) Plans	_____	_____	_____	_____	_____	_____
GIS and Mapping	_____	_____	_____	_____	_____	_____
Growth and Yield Modeling	_____	_____	_____	_____	_____	_____
Harvest scheduling and analysis	_____	_____	_____	_____	_____	_____
Hunting lease Administration	_____	_____	_____	_____	_____	_____

Table Ib. Please fill out fees charged, average number of jobs/acres conducted per year for services you offer.

Services Offered	-----Fees charged (enter amounts) -----					
	\$/acre	\$/hour	\$/day	% of Sale Revenues	Other	Ave. # jobs Ave. Acres per year
Land Sales	_____	_____	_____	_____	_____	_____
Land Surveying	_____	_____	_____	_____	_____	_____
Log Check Sealing	_____	_____	_____	_____	_____	_____
Log Marketing	_____	_____	_____	_____	_____	_____
Log Procurement	_____	_____	_____	_____	_____	_____
NTPF* Assessments and Management	_____	_____	_____	_____	_____	_____
Prescribed Burning	_____	_____	_____	_____	_____	_____
Real Estate Appraisals	_____	_____	_____	_____	_____	_____
Reclamation of Logging Disturbances	_____	_____	_____	_____	_____	_____
Reforestation (site prep/tree planting)	_____	_____	_____	_____	_____	_____
Road Design/Layout	_____	_____	_____	_____	_____	_____
Safety Seminars	_____	_____	_____	_____	_____	_____
Soils Mapping	_____	_____	_____	_____	_____	_____
* NTPF – Non-Timber Forest Products						

Table Ic. Please fill out fees charged, average number of jobs/acres conducted per year for services you offer.

Services Offered	-----Fees charged (enter amounts)-----					
	\$/acre	\$/hour	\$/day	% of Sale Revenues	Other	Ave. # jobs Ave. Acres per year per year
Third Party Audits	_____	_____	_____	_____	_____	_____
Timberland Acquisition	_____	_____	_____	_____	_____	_____
Timber Appraisals	_____	_____	_____	_____	_____	_____
Timber Damage/Trespass Appraisals	_____	_____	_____	_____	_____	_____
Timber Inventory and Cruising	_____	_____	_____	_____	_____	_____
Timber Sale Administration	_____	_____	_____	_____	_____	_____
Timber Stand Improvement	_____	_____	_____	_____	_____	_____
Urban Forestry Arboriculture	_____	_____	_____	_____	_____	_____
Wildlife Habitat Improvement	_____	_____	_____	_____	_____	_____
Others:	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

COMMENTS

Appendix C: Fees charged by the consultants for various services in West Virginia, 2005.

Services Offered	n ¹	Unit	Min.	Mean	Max.
Accident Investigation	6	\$/hour	20	64.17	125
Boundary Maintenance	15	\$/hour	20	45.20	100
	5	\$/day	200	326.00	480
Database Management	6	\$/hour	20	42.50	70
Environmental Assessments	7	\$/hour	20	42.14	80
	2	\$/day	300	325.00	350
Expert Witness Testimony	25	\$/hour	20	72.00	200
	8	\$/day	250	430.00	640
Financial Analysis	8	\$/hour	20	50.63	100
	4	\$/day	300	342.50	400
Forest Management Plans	12	\$/acre	4.75	6.07	7.00
	14	\$/hour	20	37.86	60
	9	\$/day	200	315.56	480
Forest Pest and Disease Inspection	9	\$/hour	20	42.78	70
	4	\$/day	300	342.50	400
Forest Stewardship (Cost share) Plans	15	\$/acre	4	5.47	7
	4	\$/hour	20	43.75	60
	3	\$/day	240	373.33	480
Forest Tax Consulting	7	\$/hour	20	45.71	60
	2	\$/day	300	325.00	350
GIS and Mapping	1	\$/acre	-	5.50	-
	9	\$/hour	20	46.67	75
	2	\$/day	325	402.50	480
Growth and Yield Modeling	7	\$/hour	20	45.71	60
	1	\$/day	-	300.00	-
Harvest scheduling and analysis	10	\$/hour	20	41.50	75
	4	\$/day	300	355.00	400
Hunting lease Administration	8	\$/hour	5	38.75	60
	3	\$/day	300	333.33	350

	2	% of Sale	1	6.5	12
Land Sales	5	\$/hour	20	40.00	50
	2	\$/day	320	360.00	400
	7	% of Sale	5	15	50
Land Surveying	3	\$/hour	50	68.33	80
	2	\$/day	600	620.00	640
Log Check Scaling	6	\$/hour	40	48.33	60
	1	\$/day	-	320.00	-
Log Marketing	5	\$/hour	40	43.00	50
	1	\$/day	-	320.00	-
	2	% of Sale	-	10	-
Log Procurement	2	\$/hour	40	45.00	50
	1	\$/day	-	320.00	-
	1	% of Sale	-	10	-
NTFP* Assessments and Management	3	\$/hour	20	36.70	50
	2	\$/day	320	335.00	350
	3	% of Sale	1	13.67	30
Prescribed Burning	2	\$/hour	45	47.50	50
Real Estate Appraisals	2	\$/acre	5	15.00	25
	9	\$/hour	20	59.44	100
	2	\$/day	400	520.00	640
Reclamation of Logging Disturbances	4	\$/hour	30	37.50	50
	2	\$/day	-	400.00	-
Reforestation (site prep/tree planting)	1	\$/acre	-	150.00	-
	2	\$/hour	40	42.50	45
	1	\$/day	-	300.00	-
Road Design/Layout	13	\$/hour	20	45.38	100
	4	\$/day	320	440.00	640
Safety Seminars	3	\$/hour	40	53.33	70
	1	\$/day	-	320.00	-
Soils Mapping	4	\$/hour	30	38.75	50
Third Party Audits	4	\$/hour	40	43.75	50

	1	\$/day	-	320.00	-
Timberland Acquisition	2	\$/acre	10	130.00	250
	10	\$/hour	25	46.50	80
	4	\$/day	320	427.50	640
	3	% of Sale	5	8.33	10
Timber Appraisals	5	\$/acre	5	5.90	7
	20	\$/hour	20	44.50	80
	13	\$/day	200	338.46	640
	8	% of Sale	1	10.75	20
Timber Damage/Trespass Appraisals	23	\$/hour	20	48.04	125
	9	\$/day	240	328.89	500
	5	% of Sale	1	4.8	10
Timber Inventory and Cruising	5	\$/acre	3	4.80	6
	16	\$/hour	20	42.50	70
	13	\$/day	150	296.92	450
Timber Sale Administration	10	\$/hour	20	45.50	80
	4	\$/day	240	387.50	640
	35	% of Sale	8	11.71	30
Timber Stand Improvement	1	\$/acre	-	150.00	-
	6	\$/hour	20	40.00	70
	3	\$/day	240	296.67	350
Urban Forestry Arboriculture	-	\$/hour	-	-	-
Wildlife Habitat Improvement	4	\$/hour	20	33.75	45
	4	\$/day	300	350.00	400
Others ²					
Invasive plant Analysis	1	\$/day	-	350.00	-
	1	% of Sale	-	1	-
Timber Marketing (Hired out)	1	\$/day	-	150.00	-
Gas well site approval	1	\$/hour	-	45.00	-
	1	% of Sale	-	10	-
HW lumber inspection	1	\$/day	-	240.00	-
Timber damage and oil/gas development	1	\$/hour	-	30.00	-
Routine property visits (absentee)	1	\$/hour	-	30.00	-

Oil and gas environmental consulting	1	\$/hour	-	30.00	-
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¹ - Number of consultants offering the service.

² - Others were filled in by the respondents