

# Mississippi Consultant Fees and Services: By Tract Size and Professional Affiliation

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**ABSTRACT:** *Consultants in Mississippi were surveyed to determine their services, fees, and professional characteristics. Most consultants provided forest management and timber sale administration services in-house and subcontracted site preparation, regeneration, and chemical applications. Average fees varied considerably by tract size. Average timber sales rates ranged from 8.55% of sale value for tracts less than 100 ac to 7.75% for tracts greater than 500 ac. Average fees for other services varied as much as 28% across tract sizes. Association of Consulting Foresters (ACF) and Society of American Foresters (SAF) member consultants typically were more experienced, offered more services, were more likely to be members of other professional organizations, and were more likely to have professional licenses in other states and other fields, than nonmember consultants. Average fees for ACF and SAF member consultants were generally higher than nonmember consultants, which held true across services and tract sizes. South. J. Applied Forestry 25(4):178-186.*

**Key Words:** Consultants, fees, services, professional affiliation, Association of Consulting Foresters, Society of American Foresters.

The benefits of professional forestry assistance are well documented. Assistance foresters generate higher payments for timber, maintain healthier, more vigorous residual stands, and increase regeneration (Cabbage et al. 1985, Bullard and Moulton 1988, Hubbard and Abt 1989, Henly et al. 1990). Nonetheless, less than 38% of nonindustrial private forest (NIPF) landowners in the South use professional forestry assistance (Royer and Kaiser 1985, Munn and Rucker 1994). Of those who use professional forestry assistance, less than 50% employ private consulting foresters (Royer and Kaiser 1985, Zhang et al. 1998). Free assistance from public and industry foresters and the belief that consultants are not worth the cost are among the primary reasons NIPF landowners do not use consultants (Field 1986). However, landowners that use consultants are generally well pleased with their services. Seventy-five percent of landowners using consultants rated them good or excellent (Zhang et al. 1998). This rating equaled the ratings for public assistance and industry foresters even though consultants charged for their services. Furthermore, consultants generate increased sales revenues that

offset their fees and also provide a number of sales-related services at no additional cost (Munn and Rucker 1994). Thus, the reluctance to use consulting foresters because of concerns about fees or no-cost alternatives appears to be unfounded.

Other reasons landowners may be reluctant to use consulting foresters are uncertainty about the types of consultant services available and the corresponding fees in general, and the qualifications of individual consultants specifically. To alleviate landowner uncertainty about the qualifications of consulting foresters, Autry (1996) suggested that landowners seek consultants who are members of professional organizations with established high educational and ethical standards such as the Society of American Foresters and the Association of Consulting Foresters. The purpose and standards for both organizations are as follows:

## *The Society of American Foresters (SAF)*

The Society of American Foresters (SAF) is the national scientific and educational organization representing the forestry profession in the United States. Founded in 1900 ... it is the largest professional society for foresters in the world. The mission of the Society of American Foresters is to advance the science, education, technology, and practice of forestry; to enhance the competency of its members; to establish professional excellence; and, to use the knowledge, skills, and conservation ethic of the profession to ensure the continued health and use of forest ecosystems and the present and future availability of forest resources to benefit society.

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Professional members must meet one of the following criteria:

- a. be a graduate of an SAF-accredited forestry curriculum or of a candidate curriculum for accreditation; or
- b. be a recipient of a graduate degree in forestry from an institution that has an SAF-accredited forestry curriculum or one that is a candidate for accreditation; or
- c. be a scientist or practitioner who holds a bachelor's or higher degree within the broad field of forestry, based on a curriculum that is neither SAF-accredited nor a candidate for accreditation, and who has three or more years of qualifying experience within the broad field of forestry.

[Society of American Foresters <<http://www.safnet.org/who/index.html>>(November, 2000)].

### ***The Association of Consulting Foresters of America, Inc. (ACF)***

The Association of Consulting Foresters of America, Inc. (ACF) was founded in 1948 to advance the professionalism, ethics, and interests of professional foresters whose primary work was consulting to the public. The ACF is the only national association for consulting foresters. The ACF ... standards for membership... are:

- A minimum of a B.S. degree in Forestry from an approved college.
- Eligibility for status as Candidate Member requires a minimum of 2 years experience in practical forestry administration, management, or other special forestry classification. Full member status requires a minimum of 5 years of experience in practical forestry administration, management, or other special forestry classification.
- A member's principal business activity must be forestry consulting work to the general public on a fee or contractual basis.
- Members may not have an economic interest in a timber purchasing or procurement entity.
- Members must be owners or partners of a forestry consulting firm, or salaried employees in one owned by an ACF member.

[Association of Consulting Foresters <<http://www.acf-foresters.com/index.cfm>> (November, 2000)].

Both qualify as organizations of high professional standards; however, the ACF focuses primarily on providing consulting forestry services to the general public and has more demanding membership criteria.

A number of studies have reported the types of services consultants offer (Pleasanton 1967, Martin 1977, Myers and Goforth 1980), and others have reported both fees and services (Kronrad and Albers 1984, Hodges and Cubbage 1986). None have investigated differences among consulting foresters based on their professional affiliation.

Consultant fees vary by tract size (Kronrad and Albers 1984); however, previous studies have reported simple averages without considering variations due to tract size. Information about size-related variations in fees is important because of the range in NIPF ownership sizes. For example, Zhang et al. (1998) reported that approximately 49% of NIPF landowners surveyed in Alabama owned 100 ac or less, while 18% had 500 ac or more. Furthermore, the incidence of consultant assistance also varies by tract size. As tract sizes increase, NIPF landowners are more likely to use consultants than other types of professional forestry assistance (Zhang et al. 1998). Hodges and Cubbage (1986) reported that 82% of consultant-assisted tracts in Georgia were 100 ac or larger and averaged 387 ac, substantially larger than 65 ac, which is the average size of NIPF ownerships in the South (Birch 1996). To date, no study has examined the relationship between tract size and consultant fees.

The objectives of this study were threefold: establish the range of services offered by consultants, investigate differences in fees by tract size, and evaluate differences in services and fees based on membership in professional organizations.

### **Methods**

Consulting foresters operating in Mississippi were surveyed in 1997. Names and addresses of consulting foresters operating in Mississippi were obtained from two sources: the Mississippi Roster of Registered Foresters (the Roster), and the Association of Consulting Foresters (ACF) Directory. In Mississippi, foresters must be registered to offer consulting services to the public. Registered foresters must have a forestry degree from an accredited 4-yr forestry school and pass the Registered Foresters Examination. The only exceptions to these requirements are consulting foresters without degrees who were "grandfathered in" when Mississippi began registering foresters in 1977. Fewer than 25 of the 2,145 registered foresters currently active in Mississippi fall in this category (personal communications, K. Parker, Executive Assistant, Mississippi Board of Registration for Foresters, Nov. 2, 2000). At the time this survey was conducted, the Roster did not specifically identify which registered foresters were consultants. Instead, registered foresters listed a job title in the Roster. All registered foresters who listed themselves as consultants were included in the survey. There were also many ambiguous titles such as "forester" or "self-employed." To reach all consultants operating in Mississippi, registered foresters with ambiguous titles were also included in the survey. Finally, registered foresters also listed in the ACF Directory regardless of job title reported in the Roster were automatically included in the survey. Names were cross-referenced to eliminate double listings. A population of 234 potential consulting foresters operating in Mississippi was established. Seventy percent of the population resided in Mississippi, 18% in Alabama, and the remaining 12% were from Georgia, Louisiana, Florida, Texas, Tennessee, and Arkansas.

The mail survey followed Dillman's (1978) Total Design Method. To eliminate nonconsultants who may have been included in the survey because of an ambiguous job

title, the first question of the survey asked if the recipient was a practicing consulting forester. The remaining questions elicited information about consultant characteristics, services provided, and standard fees for services based on three different tract sizes: less than 100 ac, between 100 and 500 ac, and greater than 500 ac. Standard fees were defined as those normally charged under typical conditions and circumstances in the consultant's area. Services were grouped into the following categories: forest management, timber sale administration, site preparation, regeneration, chemical treatments, miscellaneous services, game management, and related services. Forest management included long-term management agreements, management plan preparation, inventory cruises, and stewardship planning. Timber sale administration included turnkey timber sales (mark, cruise, advertise, sell, and supervise timber sales), cruising timber, and marking timber. Site preparation included mechanical preparation (i.e., drum chopper, tree crusher), windrowing (i.e., shear and pile), bedding, and burning. Chemical treatments included all applications of herbicides for silvicultural purposes such as site preparation, release, or timber stand improvement. The miscellaneous category included boundary maintenance, boundary surveying, prescribed burns, fireline construction and maintenance, precommercial thinning, and timber stand improvement. Game management included game management plan preparation, habitat evaluation, supervision/implementation of hunting leases, and installation of food plots. Land surveying, real estate brokerage, expert witness testimony, estate planning, taxation counseling, and forest property appraisal were included as related services. Also, space was provided for consultants to provide information about any services not listed on the survey instrument.

Summary statistics were computed for the survey responses. Survey responses for ACF and non-ACF members and SAF and non-SAF members were compared to illustrate differences associated with membership in professional associations. Student's *t*-tests comparing sample means were computed to test for significant differences in consultant characteristics for member and nonmember groups. Two types of statistical tests for differences in fees

were computed. First, a sign test comparing member and nonmember average rates for all services was conducted to determine if, in general, member fees were greater than nonmember fees. Second, *t*-tests were computed to test for significant differences between the sample means of member and nonmember rates for individual services.

All *t*-tests were computed assuming both equal and unequal variances, and the more conservative results were reported. These tests were replicated for SAF versus non-SAF members and ACF versus non-ACF member comparisons.

## Results

Surveys were sent to 234 individuals tentatively identified as practicing, consulting foresters. In total, 139 surveys were returned. Six respondents were not consulting foresters and one was retired; therefore, results were based on 132 surveys. The response rate was 59%, a response rate consistent with previous consultant mail surveys (Field 1986, Hodges and Cubbage 1986). Seventy-four percent of ACF members responded. Registered foresters listed in the Roster as consulting foresters (excluding ACF members) had a response rate of 69%. However, only 32% of registered foresters with ambiguous job titles in the Roster responded. All six respondents who were not practicing consulting foresters had ambiguous job titles in the Roster, suggesting that many of the nonrespondents in this category were not consulting foresters.

### Consultant Characteristics

On average, a consulting forester operating in Mississippi had been consulting for slightly more than 14 yr (Table 1) which is similar to that reported by Martin (1977) and Hodges and Cubbage (1986). Forty-five percent of the consultants were incorporated, 50% were sole proprietors, and the remaining 5% were partnerships. Sixty-one percent of respondents were members of the SAF, 24% belonged to the ACF, and 44% were registered or licensed to practice forestry in other states besides Mississippi. Sixty-nine percent were members of the Mississippi Forestry Association (MFA), and 30% had real estate licenses.

**Table 1. Characteristics of Mississippi forestry consultants.**

	All consultants	SAF members	Non-SAF members	ACF members	Non-ACF members
ACF membership*	25%	33%	9%	—	—
SAF membership†	67%	—	—	89%	62%
Years experience*†	14.1	15.2	11.7	17.6	12.9
MFA membership*†	56%	64%	41%	79%	55%
Registered in other states*†	44%	48%	36%	64%	38%
Real estate license*†	30%	35%	18%	47%	24%
No. of services provided*†	18.6	19.4	17.0	23.5	17.0
Firm type††					
Sole proprietor	50%	46%	56%	27%	57%
Incorporated	45%	48%	41%	73%	37%
Partnership	5%	6%	2%	0%	6%

\* Means for SAF member characteristics are significantly greater than the corresponding means for non-SAF member characteristics at the 10% significance level, based on one-tailed *t*-tests for differences between sample means.

† Means for ACF member characteristics are significantly greater than the corresponding non-ACF member characteristics at the 10% significance level, based on one-tailed *t*-tests for differences between sample means.

†† Distributions by firm type were not tested for significant differences.

**Table 2. Services Provided by Mississippi Consulting Foresters**

Services	Percent of consultants providing the service*		
	Total	In-house	Subcontract
<b>Forest management</b>			
Long-term management agreements	74	74	0
Management plan preparation	83	83	0
Inventory cruise	92	92	0
Stewardship plans	59	59	0
<b>Timber sale administration</b>			
Turnkey operation (mark, cruise, advertise, sell, and supervise timber sale)	95	95	0
Cruise only	75	75	0
Mark only	68	67	1
<b>Site preparation (except chemical)</b>			
Mechanical (drum chop, tree crusher, etc.)	52	2	51
Windrow (shear and pile)	52	2	51
Bedding	40	2	38
Burning	58	26	32
<b>Regeneration</b>			
Machine planting	74	17	58
Hand planting	79	9	70
<b>Chemical treatments</b>			
Site preparation	70	3	67
Release	69	3	66
TSI (injection)	56	1	55
<b>Miscellaneous</b>			
Boundary line maintenance	83	72	11
Boundary surveying	36	8	29
Prescribed burning	58	37	21
Fireline maintenance	55	16	39
Fireline construction	55	15	39
Pre-commercial thinning	39	11	28
Timber stand improvement	45	14	31
<b>Game management</b>			
Management plan preparation	36	31	5
Habitat evaluation	30	23	8
Supervise/implement hunting leases	43	39	5
Install food plots	33	20	12
<b>Related Services</b>			
Land surveying	22	5	17
Real estate brokerage	40	31	9
Expert witness testimony	70	68	2
Estate planning	34	25	9
Taxation counseling	25	14	11
Forest property appraisals	59	54	5

\* Out of 132 consultants participating in the survey.

## Services

Consultants provide forestry services in two ways. Consultants, or their employees, may provide the service themselves (in-house). Alternatively, consultants may hire an outside firm specializing in the specific service to do the job and then supervise the operation (subcontract). Table 2 reports the percentage of consultants who provided common forestry services in Mississippi by these categories. Seventy percent or more of Mississippi consulting foresters provided long-term management agreements, management plans, inventory and/or timber sale cruises, timber sales, machine and hand planting, chemical site preparation, boundary line maintenance, and expert witness testimony. In general, consultants provided forest management and timber sale administration services in-house but subcontracted site preparation, regeneration, and chemical applications. Typically, services requiring specialized equipment or skills, or seasonal and/or unskilled labor were subcontracted.

## Average Fees for Services

Table 3 presents average fees for in-house services. Services were most frequently charged on a per-acre, per-hour, or percent-of-value basis. Typically, per-acre and percent-of-value fees decreased with tract size reflecting economies of scale. However, hourly or daily rates remained constant regardless of tract size.

Timber sales are the staple of the consulting business. More consultants (95%) provided this service than any other service. The average fee ranged from 8.55% of sale value for tracts less than 100 ac to 7.75% for tracts greater than 500 ac. Kronrad and Albers (1984) reported a similar rate (8.3%) for North Carolina. Average fees for management plan preparation ranged from \$5.83/ac for tracts less than 100 ac to \$4.57/ac for tracts greater than 500 ac. These fees were similar to those reported by Kronrad and Albers (1984) and Hodges and Cubbage (1986) after adjusting for inflation.

**Table 3. Consultant fees for services provided "in-house," Mississippi.**

Services	Fee basis	No. of firms	Fees		
			<100 ac	100-500 ac	>500 ac
<b>Forest management</b>					
<b>Long term management agreements</b>					
	Dollars/ac	35	3.48	2.99	2.39
	Dollars/hr	10	51.50	51.50	52.50
	Dollars/day	8	243.75	243.75	243.75
	% of gross value	7	10.43	10.29	10.14
	Dollars/yr	2	500.00	550.00	550.00
	No fee reported*	36			
<b>Management plan preparation</b>					
	Dollars/ac	70	5.83	5.17	4.57
	Dollars/hr	10	49.10	49.10	49.10
	Dollars/day	4	250.00	250.00	250.00
	Lump sum	3	350.00	633.33	866.67
	No fee reported*	23			
<b>Inventory cruise</b>					
	Dollars/ac	90	4.79	4.18	3.72
	Dollars/hr	7	45.86	45.86	45.86
	Dollars/day	6	195.83	212.50	212.50
	Dollars per plot	2	5.00	5.00	5.00
	No fee reported*	16			
<b>Stewardship plans</b>					
	Dollars/ac	44	5.90	5.52	5.19
	Dollars/hr	7	51.43	51.43	51.43
	Lump sum	4	600.00	762.50	925.00
	Dollars/day	3	250.00	250.00	250.00
	% of gross value	1	7.50	7.50	7.50
	Annual fee	1	400.00	700.00	1,100.00
	No fee reported*	18			
<b>Timber sale administration</b>					
<b>Timber sales</b>					
	% of gross value	105	8.55	8.10	7.75
	Dollars/hr	3	28.67	28.67	23.00
	No fee reported*	18			
<b>Cruise only</b>					
	Dollars/ac	67	4.92	4.38	4.06
	% of gross value	7	6.57	6.57	6.43
	Dollars/hr	6	45.58	45.58	45.58
	Dollars/day	6	237.50	237.50	237.50
	Dollars/plot	2	5.00	5.00	5.00
	No fee reported*	11			
<b>Mark only</b>					
	Dollars/ac	29	17.00	16.88	16.68
	Dollars/hr	16	41.94	41.31	40.69
	Dollars/MBF	12	9.33	9.17	9.00
	Dollars/day	11	250.00	240.00	240.91
	% of gross value	8	7.25	7.13	7.00
	Dollars/ton	1	1.00	1.00	1.00
	No fee reported*	12			
<b>Site preparation (except chemical)</b>					
<b>Mechanical (drum chop, tree crusher, etc.)</b>					
	Dollars/ac	1	90.00	90.00	90.00
	No fee reported*	1			
<b>Windrow (shear and pile)</b>					
	Dollars/ac	1	150.00	150.00	150.00
	Dollars/hr	1	60.00	60.00	60.00
<b>Bedding</b>					
	Dollars/ac	3	51.67	51.67	51.67
<b>Burning</b>					
	Dollars/ac	28	12.68	12.17	11.60
	Dollars/day	1	350.00	350.00	350.00
	No fee reported*	5			

Supervisory fees for subcontracted services were most commonly charged on a per-hour, per-day, or per-acre basis. The average hourly and daily rates were relatively constant for all services, ranging from \$45 to \$50 and \$250 to \$300,

respectively. Average per-acre fees varied considerably, ranging from \$2.00 to \$12.50 depending on the operation supervised. As with in-house fees, per-acre supervisory fees reflected considerable economies of scale.

**Table 3. Consultant fees for services provided "in-house," Mississippi. (continued)**

Regeneration					
Machine planting	Dollars/ac	16	44.63	41.04	40.69
	No fee reported*	6			
Hand planting	Dollars/ac	8	56.00	51.67	51.50
	No fee reported*	4			
Chemical treatments					
Site preparation	Dollars/ac	2	90.00	70.00	70.00
	No fee reported*	2			
Release	Dollars/ac	3	60.00	45.00	45.00
	No fee reported*	1			
TSI (injection)	No fee reported*	1			
Miscellaneous					
Boundary line maintenance	Dollars/mile	64	196.09	198.33	198.17
	Dollars/day	9	208.33	208.33	208.33
	Dollars/hr	4	31.00	31.00	31.00
	Dollars/ac	1	1.00	1.00	1.00
	No fee reported*	17			
Boundary surveying	Dollars/hr	3	28.00	28.00	28.00
	Dollars/mile	2	250.00	250.00	250.00
	Dollars/ac	1	10.00	7.00	6.00
	No fee reported*	4			
Prescribed burning	Dollars/ac	38	10.76	10.04	9.70
	Dollars/hr	3	29.67	29.67	29.67
	Dollars/day	1	350.00	350.00	350.00
	No fee reported*	7			
Fireline maintenance	Dollars/hr	17	43.06	43.06	43.06
	Dollars/mile	2	200.00	175.00	150.00
	No fee reported*	2			
Fireline construction	Dollars/hr	17	46.12	45.25	45.25
	Dollars/mile	3	170.00	153.33	128.33
Pre-commercial thinning	Dollars/ac	4	67.75	67.75	67.75
	% of gross value	3	11.67	11.67	11.67
	Dollars/ton	2	0.88	0.88	0.88
	Dollars/hr	1	250.00	250.00	250.00
	No fee reported*	5			
Timber stand improvement					
	Dollars/hr	4	43.75	43.75	43.75
	Dollars/ac	2	23.75	23.75	23.75
	Dollars/day	1	200.00	200.00	200.00
	% of gross value	1	8.00	8.00	8.00
	No fee reported*	10			
Game management					
Management plan preparation	Dollars/ac	18	5.50	5.13	4.85
	Dollars/hr	7	49.29	49.29	49.29
	Dollars/day	3	283.33	283.33	283.33
	Lump sum	1	400.00	400.00	400.00
	No fee reported*	12			
Habitat evaluation	Dollars/hr	8	53.75	53.75	53.75
	Dollars/ac	4	5.00	5.00	4.50
	Dollars/day	4	250.00	250.00	250.00
	Lump sum	1	200.00	200.00	200.00
	No fee reported*	13			

Consultants also reported several services not listed in the survey. These services included aerial inspection (4), damage appraisal (3), urban tree appraisal/care (2), beaver control (2),

wetland delineation (1), endangered species consultation (1), tree fertilization (1), timber lease negotiation (1), raw material projection (1), trespass appraisal (1), stand growth

**Table 3. Consultant fees for services provided "in-house," Mississippi. (continued)**

Supervise/implement hunting leases					
	% of gross value	12	12.08	12.27	12.27
	Dollars/hr	9	43.44	43.44	43.44
	Dollars/ac	8	1.20	0.76	0.76
	Dollars/day	3	300.00	300.00	300.00
	Lump sum	1	100.00	100.00	100.00
	No fee reported*	18			
Install food plots					
	Dollars/hr	13	48.77	47.00	47.00
	Dollars/ac	3	325.00	275.00	275.00
	Dollars/day	2	250.00	250.00	250.00
	No fee reported*	9			
Related services					
Land surveying					
	Dollars/day	1	350.00	350.00	350.00
	No fee reported*	5			
Real estate brokerage					
	% of gross value	32	7.84	7.73	7.50
	Dollars/hr	1	100.00	100.00	100.00
	No fee reported*	8			
Expert witness testimony					
	Dollars/hr	39	64.64	64.37	64.37
	Dollars/day	28	360.71	360.71	360.71
	No fee reported*	23			
Estate planning					
	Dollars/hr	10	62.00	62.00	62.00
	Dollars/day	3	375.00	375.00	375.00
	Dollars/ac	2	4.00	2.25	2.25
	No fee reported*	18			
Taxation counseling					
	Dollars/hr	8	63.75	63.75	63.75
	Dollars/day	2	312.50	312.50	312.50
	No fee reported*	8			
Forest property appraisals					
	Dollars/ac	28	5.39	4.84	4.36
	Dollars/hr	11	54.18	52.10	52.10
	Dollars/day	6	283.33	283.33	283.33
	Lump sum	3	1,225.00	1,666.67	2,083.33
	No fee reported*	23			

\* Consultants who provide the service but did not report fees.

projections (1), kudzu control (1), and installation of stream management zones (1).

### Comparison of SAF and Non-SAF Members

SAF member consultants had more experience, offered more services, were more likely to be members of other professional organizations, and were more likely to have professional licenses in other states and other fields, than consultants who were not members of SAF (Table 1). Consultants who were members of SAF averaged slightly over 15 yr experience as practicing consulting foresters, 4 more years than nonmembers. Each SAF consultant provided, on average, 19.4 different forestry services, compared to 17 different services for non-SAF consultants. Thirty-three percent of SAF consultants were also ACF members while only 9% of non-SAF consultants belonged to the ACF. Forty-eight percent of SAF members were registered in other states in addition to Mississippi (36% for non-SAF members), 64% were MFA members (41% for non-SAF members), and 35% had a real estate license (18% for non-SAF members). These differences were all significant at the 10% significance level or better.

The average standard rates for services reported by SAF consultants were greater than those reported by non-SAF consultants for all services. Thus, computing the sign test became moot as all categories of comparison had a positive sign. The unambiguous result of the sign test was that SAF consultants charge higher rates, on average, than non-SAF consultants do. The results of the *t*-tests for significant differences in fees for specific services are reported here for five key services based on tract sizes of 100 to 500 ac: management plan preparation, inventory cruising, timber sales, boundary line maintenance, and expert witness testimony (Table 4). These services were selected because the relatively large number of respondents offering these services with a common fee basis made testing for significant differences feasible. Although the average SAF member rates were greater than non-SAF member rates for all five services, the difference was statistically significant for management plan preparation and timber sales only. Higher average SAF rates held true across all tract sizes although statistical significance varied. To illustrate this trend across tract sizes, timber sale rates for SAF and non-SAF members are depicted in Figure 1.

**Table 4. Fees for SAF and non-SAF consultants for 100-500 ac tracts.**

Service (fee basis)	SAF members	Non-SAF members
Management plans (\$/ac)*	\$5.64	\$3.99
Cruising (\$/ac)	\$4.31	\$3.99
Timber sales (% of gross)*	8.33%	7.66%
Boundary line maintenance (\$/mile)	\$201.86	\$183.81
Expert witness (\$/hr)	\$68.70	\$55.71

\* SAF member fees are significantly greater than the corresponding non-SAF member fees at the 10% significance level, based on one-tailed *t*-tests for differences between sample means.

**Table 5. Fees for ACF and non-ACF consultants for 100-500 ac tracts.**

Service (fee basis)	ACF members	Non-ACF members
Management plans (\$/ac)*	\$5.64	\$4.87
Cruising (\$/ac)*	\$4.76	\$3.96
Timber sales (% of gross)	8.33%	8.03%
Boundary line maintenance (\$/mile)*	\$246.76	\$174.40
Expert witness (\$/hr)*	\$74.06	\$57.32

\* ACF member fees are significantly greater than the corresponding non-ACF member fees at the 10% significance level, based on one-tailed *t*-tests for differences between sample means.

### Comparison of ACF and Non-ACF Members

Almost all (89%) ACF member consultants were also members of SAF (Table 1). However, the differences between ACF and non-ACF members were even greater than the differences between SAF and non-SAF members. Consultants who were members of ACF averaged 17.6 yr experience as practicing consulting foresters, 5 more years than nonmembers. Each ACF consultant provided, on average, 23.5 different forestry services, compared to 17 services for non-ACF consultants. Sixty-four percent of ACF members were registered in other states in addition to Mississippi (38% for non-ACF members), 79% were MFA members (55% for non-ACF members), and 47% had a real estate license (24% for non-ACF members). These differences were all significant at the 10% significance level or greater.

The average standard rates for services reported by ACF consultants were greater than those reported by non-ACF consultants for all services. As with SAF consultants, because all categories of comparison had a positive sign, computing the sign test became moot. The unambiguous result of the sign test was that ACF consultants charge higher rates, on average, than non-ACF consultants do. The results of the *t*-tests for significant differences in fees for specific services are reported here for the same five services and tract size (Table 5). The average ACF rates were greater than

average non-ACF rates for all five services. The difference was statistically significant for all services except timber sales. Higher average ACF rates held true across all tract sizes although statistical significance varied.

### Discussion

A majority of NIPF landowners do not enlist the services of consulting foresters despite well-documented benefits that include higher payments for timber that offset fees; healthier, more vigorous residual stands, and increased regeneration. Furthermore, 75% of NIPF landowners who did employ consultants rated their services as good or excellent. There are several potential reasons NIPF landowners do not enlist the services of consulting foresters despite the benefits and the overall satisfaction with consultant services. Ignorance about the types of services consultants provide and the fees for these services may make NIPF landowners reluctant to hire a consultant. Uncertainty about the qualifications of individual consultants may also deter landowners.

Consultants in Mississippi were surveyed to determine their services, fees, and professional characteristics. Fifty-nine percent of those surveyed responded. Consultants in Mississippi provide a broad range of services to NIPF landowners. Over 70% of the consultants surveyed offered key services such as long-term management agreements, management plans, inventory and/or timber sale cruises, timber sales, machine and hand planting, chemical site preparation, boundary line maintenance, and expert witness testimony. In total, 33 different services were provided by at least 20% of the consultants surveyed. Qualified consultants are available to perform most, if not all, needed services. Knowing these services are available will encourage landowners to seek out professional assistance.

From the consultants' standpoint, this survey identifies opportunities. For example, 85% of landowners consider wildlife as the primary or secondary objective for their forest property (Thrift et al. 1997), yet less than half of consultants in Mississippi currently provide any game management services.

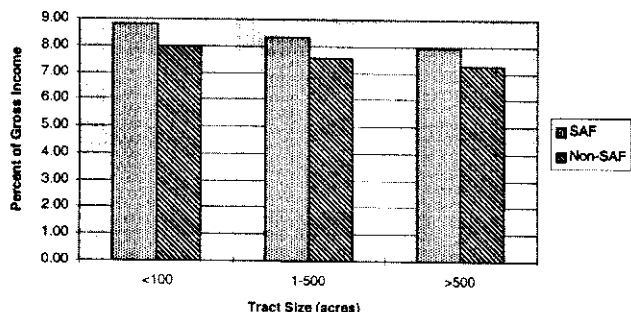


Figure 1. Average fees for timber sales for SAF and non-SAF consultants—Mississippi.



The average fees reported here were consistent with previous studies after adjusting for inflation. Reporting average fees provides NIPF landowners with basic cost information that should reduce landowner reluctance to negotiate with consultants.

Average rates varied substantially by tract size. The average rate to conduct a timber sale on tracts less than 100 ac was 10% greater than rates for tracts greater than 500 ac. The average per-acre rate for preparing management plans was 28% greater for tracts less than 100 ac than those for tracts over 500 ac. Similar differences occurred for most services. Such substantial differences in rates help explain the dramatically lower rate of consultant assistance for smaller tracts reported by Zhang et al. (1998).

Providing information about consultant services and fees may reduce landowner reservations about consultants in general but does not address landowner concerns about which consultant to employ. Autry (1996) suggested hiring a consultant who is a member of a professional organization with established high educational and ethical standards such as the Association of Consulting Foresters and the Society of American Foresters. Our results indicate that, in general, affiliation with one or both of these organizations can serve as a useful indicator of professional expertise. In this study, ACF and/or SAF member consultants had more experience, offered more services, were more likely to have professional licenses in other states and other fields, and were more likely to be members of other forestry organizations, than were nonmembers. Furthermore, the differences were greater for ACF member consultants, reflecting ACF's more stringent membership standards. Of course, landowners should not base their decisions solely on the consultant's professional affiliations. Qualifications such as professional reputation and expertise in the landowners' areas of need should be the deciding factors. Standard rates reported by ACF and SAF member consultants were typically higher than

those reported by nonmember consultants. Landowners should be aware, however, that the fees these consultants charge would likely reflect the quality of the services provided.

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